Supplementary Informations for :

Facilitating genome navigation: survey sequencing and dense radiation-hybrid gene mapping

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Supplementary Information : S9

The Canine Genome: Survey Sequencing and a Dense Gene Map for Genome Navigation (*Hitte et al. 2005*)

Supplementary Figures for chr1 to chr38 and chrX : Markers order as determined by RH map and sequence assembly for each canine chromosome.

Legend :

Integration of the canine RH map with the dog sequence assembly and the human data:

The RH map of dog is represented in the middle of the figure by the vertical bars. Marker names and distance values in cR9000 are reported in the middle. The bar on the right of the figure summarizes the sequence assembly (CanFam1.0) of the considered chromosome. Red lines connect the RH map and the CanFam1.0 sequence, demonstrating colinearity or inversions (Markers in black have not been compared). On the right side, Gene Id. and gene coordinate (in Mb on CanFam1.0) are reported.

Colored boxes on the left side of the figure indicate the human counterparts identified through best-mutual dog/human BLAST alignment. Gene name, coordinates in Mb (build 34) and human chromosome name are indicated along the left boxes. The colored connecting lines represent Dog/human rearrangements within the CS.

RH MAP CFA01

DOG SEQUENCE

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ENE3910 93320592.00 HSA12 ENE10903 13229221.00 HSA18 ENE5019 13421328.00 HSA18 ENE10904 13655440.00 HSA18 ENE13826 46575872.00 HSA18 ENE12778 46702116.00 HSA18 ENE10953 46765000.00 HSA18 ENE5069 46856320 00 HSA18	GENE10987 - GENE5108 - GENE13403 - GENE10992 - GENE10991 - BAC_385-H17 GENE5105 - GENE13402 -	0.00 67.00 93.00 101.00 132.00 139.00 160.00 191.00	- GENE 10987	CFA01 GENE5108 3929261.00 CFA01 GENE13403 4058139.00 CFA01 GENE10992 4058139.00 CFA01 GENE10992 4058139.00 CFA01 GENE10992 5579308.00 CFA01 GENE5105 6246535.00 CFA01 GENE10989 6938469.00 CFA01 GENE10988 7190990.00 CFA01 GENE103 7241081.00
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	GENE12811 - GENE12810 -	5385.00	-GENE 12810	

GENE4786 16834942.00 HSA17 GENE3110 221119.00 HSA10 GENE9007 274193.00 HSA10 GENE3111 811774.00 HSA10	GENE3168 - GENE13469 - GENE3169 - GENE3169 - GENE9064 -	0.00 38.00 53.00 73.00	-GENE3168	CFA04 <u>GENE9102</u> CFA02 <u>GENE3169</u> CFA02 <u>GENE3168</u> CFA02 <u>GENE13469</u>	21476414.00 6524449.00 6753923.00 6753923.00
GENE13453 1000511.00 HSA10 GENE3112 1129003.00 HSA10 GENE9009 3099962.00 HSA10 GENE3113 3161423.00 HSA10	-GENE3160 - BAC_374-C3 -GENE13467 - GENE3159 - -GENE3159 -	112.00 114.00 129.00 271.00	-GENE3160	CFA02 GENE9064 CFA02 GENE3160 CFA02 GENE3161 CFA02 GENE13467	7053968.00 7443317.00 7822261.00 8216969.00
GENE3114 4405439.00 HSA10 GENE3114 4405439.00 HSA10 GENE3115 4883380.00 HSA10 GENE3012 5278676.00 HSA10 GENE3116 5388930.00 HSA10	ESTIF4 -GENE13141 - -GENE3157 - -GENE9053 -	336.00 355.00 365.00 387.00	ESTIF4 -GENE13141 -GENE3157 -GENE9053	CFA02 GENE3162 CFA02 GENE3165 CFA02 GENE9061 CFA02 GENE3164 CFA02 GENE13468	9040310.00 9131495.00 9339236.00 9663654.00
GENE13455 5448174.00 HSA10 GENE3117 5520784.00 HSA10 GENE3118 5781219.00 HSA10 GENE3119 5958829.00 HSA10	-GENE9048 - -GENE9050 - -GENE13466 - -GENE3155 -	437.00 465.00 500.00 514.00	-GENE9048 -GENE9050 -GENE13466 -GENE3155	CFA02 GENE13142 CFA02 GENE3166 CFA02 GENE9063 CFA02 GENE3167	10355831.00 10763137.00 10896939.00 11168178.00
GENE9016 6005940.00 HSA10 GENE3120 6071645.00 HSA10 GENE9017 6161068.00 HSA10 GENE3121 6262538.00 HSA10 GENE3121 6262538.00 HSA10	-GENE9051 - -GENE3154 - -GENE9049 - -GENE9047 - -CENE3151 -	521.00 524.00 539.00 553.00 560.00	- GENE9051 - GENE3154 - GENE9049 - GENE9047 - CENE9047	CFA02 GENE4786 CFA02 GENE3147 CFA02 GENE13464 CFA02 GENE3148 CFA02 CENE3148	11377319.00 12349617.00 13127029.00 13565925.00
GENE9018 6395821.00 HSH10 GENE3122 6524496.00 HSA10 GENE9019 6631037.00 HSA10 GENE3123 6887876.00 HSA10 GENE3123 7264016.00 HSA10	GENE3151 - GENE3150 - BAC_373-A21 -GENE13465 - -GENE9046 -	566.00 564.00 567.00 571.00 616.00	-GENE3151 -GENE3150 BAC_373-A21 -GENE13465 -GENE3046	CFR02 GENE9045 CFR02 GENE3149 CFR02 GENE9046 CFR02 GENE3150 CFR02 GENE3047	14094474.00 14386089.00 14575735.00 15045863.00 15191853.00
GENE3124 7608153.00 HSA10 GENE9021 7630811.00 HSA10 GENE3125 7709625.00 HSA10 GENE9022 7801643.00 HSA10	-GENE9045 - BAC_372-I19 -GENE3149 - -GENE3148 -	644.00 654.00 657.00 674.00	-GENE9045 BAC_372-I19 -GENE3149 -GENE3148	CFA02 GENE3151 CFA02 GENE13465 CFA02 GENE9048 CFA02 GENE9049	15509617.00 15509617.00 15632517.00 16782324.00
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GENE3129 11915520.00 HSA10 GENE3130 12201334.00 HSA10 GENE9027 12216089.00 HSA10 GENE3131 12295445.00 HSA10 GENE3131 12295445.00 HSA10	-GENE9063 - -GENE4786 - -GENE13468 - -GENE13142 - -GENE9102 -	754.00 769.00 785.00 793.00	- GENE 9 063 - - GENE 4786 - - GENE 13468 - - GENE 13142 -	CFA02 GENE3155 CFA02 GENE9053 CFA02 GENE3157 CFA02 GENE13141 CFA02 CENE13141	17701402.00 18313992.00 18488792.00 18684480.00
GENE13458 13168025.00 HSA10 GENE3133 13234750.00 HSA10 GENE13459 13323706.00 HSA10 GENE3134 13390739.00 HSA10	-GENE9061 - -GENE3164 - -GENE3165 - -GENE3162 -	819.00 822.00 829.00 855.00	-GENE9061 -GENE3164 -GENE3165 -GENE3162	CFA02 GENE9055 CFA02 GENE3146 CFA02 GENE13140 CFA02 GENE13463	18961756.00 19108788.00 19108788.00 19594430.00
GENE9031 13488512.00 HSA10 GENE13460 14017854.00 HSA10 GENE3136 14564391.00 HSA10 GENE9033 14887629.00 HSA10	-GENE3161 - -GENE9056 - -GENE3163 - -GENE3140 -	909.00 938.00 952.00 1017.00	-GENE3161 - GENE3056 GENE3163 -GENE3140	CFA02 GENE3145 CFA02 GENE9041 CFA02 GENE3144 CFA02 GENE9040	19791680.00 19791680.00 19953642.00 20168160.00
GENE3137 14954402.00 HSA10 GENE13461 14990986.00 HSA10 GENE3139 15216880.00 HSA10 GENE13462 15257581.00 HSA10	GENE3146 - GENE13140 - GENE13140 - GENE13463 - GENE3144 -	1065.00 1078.00 1098.00 1136.00	- GENE3146 - GENE13140 - GENE13463 - GENE3144 - CENE2145	CFA02 GENE3143 CFA02 GENE9037 CFA02 GENE9038 CFA02 GENE3140	20242988.00 20825372.00 20825372.00 21527472.00
GENE3036 15564636.00 HSH10 GENE3140 15783735.00 HSA10 GENE9037 16550932.00 HSA10 GENE9038 16638734.00 HSA10 GENE3143 17281800.00 HSA10	GENE3143 - GENE3143 - GENE3143 - GENE3136 -	1183.00 1198.00 1242.00 1293.00	-GENE9041	CFA02 GENE3036 CFA02 GENE3139 CFA02 GENE13462 CFA02 GENE3137 CFA02 GENE13461	22076312.00 22076312.00 22269324.00 22269324.00
GENE9040 17365898.00 HSA10 GENE3144 17635602.00 HSA10 GENE9041 17760476.00 HSA10 GENE3145 18115884.00 HSA10	GENE3139 - GENE3137 - GENE13462 - GENE13461 -	1312.00 1322.00 1332.00 1335.00	-GENE3139 -GENE3137 -GENE13462 -GENE13461	CFA02 GENE9033 CFA02 GENE3136 CFA02 GENE13460 CFA02 GENE9031	22411272.00 22672950.00 23144760.00 23624716.00
GENE13463 18254372.00 HSA10 GENE3146 18806770.00 HSA10 GENE13140 18935012.00 HSA10 GENE3147 19790216.00 HSA10	GENE9033 - GENE9036 - GENE9037 - GENE9038 - GENE9038 -	1338.00 1347.00 1367.00 1370.00	- GENE9033 - GENE9036 - GENE9037 - GENE9038 - CENE9038	CFA02 GENE13459 CFA02 GENE3134 CFA02 GENE3133 CFA02 GENE13458	23810750.00 23810750.00 23912972.00 23956940.00
GENE13464 20536086.00 HSH10 GENE3148 21151982.00 HSA10 GENE3045 21795086.00 HSA10 GENE3149 22020388.00 HSA10 GENE3046 22221404.00 HSA10	GENE13460 - GENE13459 - GENE13458 - GENE13458 - GENE13139 -	1414.00 1438.00 1447.00 1457.00	-GENE 13460	CFA02 GENE13139 CFA02 GENE3131 CFA02 GENE3130 CFA02 GENE3120 CFA02 GENE3129	24162152.00 24773858.00 24821248.00 24821248.00 25113560.00
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GENE13466 25288236.00 HSH10 GENE9051 25452358.00 HSA10 GENE3155 25789316.00 HSA10 GENE9053 26516684.00 HSA10 GENE3157 26793664.00 HSA10		1704.00 1743.00 1746.00 1752.00	-GENE3129 -GENE9021 -GENE9022 -GENE3124	CFR02 GENE3124 CFR02 GENE3123 CFR02 GENE9020 CFR02 GENE9019 CFR02 GENE3122	29126672.00 29542092.00 29542092.00 29881604.00 30055014.00
GENE13141 27044276.00 HSA10 GENE9055 27404570.00 HSA10 GENE3159 27497182.00 HSA10 GENE9056 27509848.00 HSA10		1764.00 1770.00 1815.00 1834.00	-GENE3125 -GENE3126 -GENE3123 -GENE9020	CFA02 GENE9018 CFA02 GENE3121 CFA02 GENE9017 CFA02 GENE3120	30221096.00 30342878.00 30423232.00 30503466.00
GENE3160 28027172.00 HSA10 GENE3161 28493508.00 HSA10 GENE13467 28903944.00 HSA10 GENE3162 29139350.00 HSA10		1848.00 1851.00 1858.00 1861.00	-GENE3122	CFA02 GENE9016 CFA02 GENE3119 CFA02 GENE3118 CFA02 GENE3117	30615830.00 30667624.00 30785256.00 30994408.00
GENE3163 29415088.00 HSH10 GENE13468 29785582.00 HSA10 GENE3164 30306320.00 HSA10 GENE9061 30606330.00 HSA10 GENE3165 30754128.00 HSA10	GENE3017 - GENE3118 - GENE13455 - GENE9016 - GENE9012 -	1874.00 1887.00 1893.00 1896.00 1899.00	-GENE3017 -GENE3118 -GENE13455 -GENE9016 -GENE9012	CFA02 GENE13455 CFA02 GENE3116 CFA02 GENE9012 CFA02 GENE3115 CFA02 GENE3114	31070668.00 31123328.00 31425970.00 31425970.00 31425970.00
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Sec16376.00 HSA10 GENE9102 68020736.00 HSA10 GENE7660 54786816.00 HSA05 GENE1760 54984008.00 HSA05 GENE7661 55097208.00 HCOME		2008.00 2026.00 2033.00 2047.00	-GENE3113 -GENE3112 -GENE13453 -GENE3111	CFA02 GENE 1900 CFA02 GENE 7800 CFA02 GENE 1902 CFA02 GENE 7801 CFA02 GENE 1904	35699616.00 35920344.00 36148252.00 36287616.00
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GENE1765 57764724.00 HSA05 GENE12377 57807684.00 HSA05 GENE1766 58162896.00 HSA05 GENE1767 58504936.00 HSA05 GENE1767 58504936.00 HSA05	GENE1902 - GENE7806 - GENE1904 - GENE7802 -	2155.00 2170.00 2174.00 2181.00	-GENE 1902	CFR02 GENE7806 CFR02 GENE1908 CFR02 GENE1913 CFR02 GENE7812 CFR02 OFN712	36961360.00 37065624.00 38747448.00 39166120.00
GENE1768 59955560.00 HSA05 GENE1769 60199072.00 HSA05 GENE7670 60383088.00 HSA05 GENE12378 60801512.00 HSA05	GENE 7801 - GENE 1903 - GENE 12427 - GENE 7805 - GENE 1913 -	2191.00 2195.00 2199.00 2203.00	-GENE1903 - -GENE12427 - -GENE7805 - -GENE1913 -	CFA02 GENE1914 CFA02 GENE9067 CFA02 GENE7813 CFA02 GENE1915 CFA02 GENE7814	40233100.00 40866412.00 41028096.00 41166288.00
GENE1771 60944352.00 HSA05 GENE7672 61016920.00 HSA05 GENE1772 61669544.00 HSA05 GENE1773 61938732.00 HSA05	-GENE1908 - -GENE7812 - -GENE1914 - -GENE9067 -	2207.00 2219.00 2227.00 2235.00	-GENE1908	CFA02 GENE1916 CFA02 GENE1918 CFA02 GENE7817 CFA02 GENE1919	41166288.00 41441960.00 42157628.00 42295032.00
GENE12380 64288576.00 HSA05 GENE12380 64288576.00 HSA05 GENE1776 64640392.00 HSA05 GENE7677 64907512.00 HSA05 GENE7678 65123544 00 HSA05	GENE7814 - -GENE7813 - -GENE1915 - -GENE1916 -	2251.00 2254.00 2270.00 2277.00	-GENE7813 -GENE1915 -GENE1916 -GENE1918	CFR02 GENE1920 CFR02 GENE7819 CFR02 GENE1922 CFR02 GENE7660 CFR02 GENE1760	+2+9/564.00 42715944.00 43064440.00 43405220.00 43562060.00
GENE1778 65364544.00 HSA05 GENE7679 65469180.00 HSA05 GENE1780 65516180.00 HSA05 GENE1775 65524564.00 HSA05	GENE7817 - GENE1919 - GENE7819 - GENE7819 - GENE1920 -	2293.00 2297.00 2311.00 2316.00	-GENE7817 -GENE1919 -GENE7819 -GENE1920	CFA02 GENE7661 CFA02 GENE1762 CFA02 GENE1763 CFA02 GENE7664	43769124.00 43769124.00 44141608.00 44673548.00
GENE7680 65906948.00 HSA05 GENE7681 67584976.00 HSA05 GENE7683 68663456.00 HSA05 GENE12385 69632728.00 HSA05 GENE12385 69632728.00 HSA05	GENE1760 - GENE7660 - GENE1922 - GENE7661 - GENE1760 -	2325.00 2329.00 2333.00 2347.00	- GENE 1760	CFA02 GENE7665 CFA02 GENE1765 CFA02 GENE12377 CFA02 GENE1766 CFA02 CENE1766	45407304.00 45935440.00 46038308.00 46370080.00
GENE1783 69955264.00 HSA05 GENE1784 70096160.00 HSA05 GENE7685 71014792.00 HSA05 GENE1787 71248352.00 HSA05 GENE7686 71583088.00 HSA05	GENE1762 - GENE1763 - GENE7664 - BAC_416-N18 GENE1765 -	2352.00 2356.00 2370.00 2395.00 2414.00	-GENE1762	CFR02 GENE1767 CFR02 GENE1768 CFR02 GENE7668 CFR02 GENE1769 CFR02 GENE1769	46593544.00 47904348.00 47904348.00 48190280.00 48190280.00
GENE1788 71617568.00 HSA05 GENE7687 71710512.00 HSA05 GENE12387 71827056.00 HSA05 GENE7688 72279024.00 HSA05	GENE12377 - GENE7665 - GENE1766 - GENE1767 -	2418.00 2427.00 2440.00 2453.00	-GENE12377 -GENE7665 -GENE1766 -GENE1767	CFA02 GENE12378 CFA02 GENE1771 CFA02 GENE7672 CFA02 GENE1772	48625044.00 48767564.00 48825920.00 49410928.00
GENE1790 72468216.00 HSA05 GENE7690 72947824.00 HSA05 GENE1792 73214040.00 HSA05 GENE7691 73302208.00 HSA05 GENE7691 73302208.00 HSA05	BAC_381-A21 GENE1768 - GENE7668 - GENE1769 - GENE7670 -	2477.00 2485.00 2488.00 2492.00 2492.00	BAC_381-A21 -GENE1768 -GENE7668 -GENE1769 -CENE7870	CFA02 GENE1773 CFA02 GENE7675 CFA02 GENE1775 CFA02 GENE12380 CFA02 CENE12380	49410928.00 50912332.00 51240832.00 51359768.00
GENE1793 74007684.00 HSH05 GENE7692 74076032.00 HSA05 GENE1900 138831728.00 HSA05 GENE7800 139279504.00 HSA05 GENE1902 139602448.00 HSA05	GENE7672 - GENE1771 - GENE1772 - GENE1773 -	2507.00 2511.00 2515.00 2524.00	-GENE7672 -GENE1771 -GENE1772 -GENE1773	CFA02 GENE1778 CFA02 GENE7677 CFA02 GENE7678 CFA02 GENE1778 CFA02 GENE7679	51810804.00 51810804.00 52169024.00 52323396.00 52444476.00
GENE7801 139740880.00 HSA05 GENE1903 139771696.00 HSA05 GENE7802 139904576.00 HSA05 GENE12427 140211216.00 HSA05	GENE12378 - GENE7675 - GENE1775 - BAC_374-01	2537.00 2550.00 2554.00 2558.00	-GENE12378 -GENE7675 -GENE1775 BAC_374-01	CFA02 GENE1780 CFA02 GENE7680 CFA02 GENE7681 CFA02 GENE1783	52444476.00 52613344.00 54165288.00 54847436.00
GENE 1904 140512784.00 HSH 05 GENE 7805 140641664.00 HSA 05 GENE 7806 140757440.00 HSA 05 GENE 1908 140932800.00 HSA 05 GENE 1913 142717952.00 HSA 05	GENE 1230 0 - GENE 1776 - BAC_372-A8 -GENE7677 - GENE7677 -	2508.00 2577.00 2584.00 2592.00 2600.00	-GENE12300 - -GENE1776 - BAC_372-A8 -GENE7677 - -GENE7678 -	CFH02 GENE1784 CFA02 GENE7683 CFA02 GENE12385 CFA02 GENE7685 CFA02 GENE1787	54920660.00 55009368.00 55153536.00 55401920.00 55401920.00
GENE7812 143228720.00 HSA05 GENE1914 143572832.00 HSA05 GENE7813 145204192.00 HSA05 GENE7814 145506176.00 HSA05	-GENE1778 - -GENE1778 - -GENE1780 - -GENE1780 - -GENE1784 -	2603.00 2618.00 2625.00 2629.00	-GENE1778 -GENE7679 -GENE1780 -GENE1784	CFA02 GENE7686 CFA02 GENE1788 CFA02 GENE7687 CFA02 GENE12387	55975712.00 55975712.00 55975712.00 55975712.00
GENE1916 145550608.00 HSA05 GENE1915 145899568.00 HSA05 GENE1918 145996368.00 HSA05 GENE7817 146647600.00 HSA05 GENE1920 147044032 00 HSA05		2632.00 2644.00 2660.00 2664.00 2672.00	- GENE 1783	CFA02 GENE7688 CFA02 GENE1790 CFA02 GENE7690 CFA02 GENE1792 CFA02 GENE1792	56449580.00 56583076.00 57015672.00 57252072.00 57341200.00
GENE7819 147232288.00 HSA05 GENE1919 147352176.00 HSA05 GENE1922 147610512.00 HSA05 GENE1922 147610512.00 HSA05 GENE4573 16143253.00 HSA16	BAC_385-F7 GENE7685 - GENE1787 - GENE7686 -	2680.00 2689.00 2693.00 2697.00	BAC_385-F7 -GENE7685 -GENE1787 -GENE7686	CFA02 GENE1793 CFA02 GENE7692 CFA02 GENE10539 CFA02 GENE4654	57782264.00 57870208.00 58611568.00 58763528.00
GENE4623 47277656.00 HSA16 GENE4624 48026936.00 HSA16 GENE13300 48162952.00 HSA16 GENE10511 49090680.00 HSA16	BAC_382-H6 -GENE1788 - -GENE7687 - -GENE7688 - -GENE7688 -	2706.00 2714.00 2718.00 2727.00	BAC_382-M6 -GENE1788 -GENE7687 -GENE7688 -CENE1788	CFA02 GENE4653 CFA02 GENE4652 CFA02 GENE10537 CFA02 GENE10536	58978412.00 59060664.00 59060664.00 59176324.00
GENE4626 49210032.00 HSH16 GENE10512 49447520.00 HSA16 GENE10513 49842400.00 HSA16 GENE4628 50147048.00 HSA16 GENE4629 50347608.00 HSA16	GENE1790 -GENE12387 - -GENE1792 - -GENE1793 - -GENE7692 -	2754.00 2779.00 2788.00 2802.00	-GENE12387 -GENE12387 -GENE1792 -GENE1793 -GENE7692	CFA02 GENE4651 CFA02 GENE4659 CFA02 GENE4650 CFA02 GENE10534 CFA02 GENE10533	59270400.00 59429168.00 59429168.00 59429168.00 59555628.00
GENE4630 50522448.00 HSA16 GENE10517 52092484.00 HSA16 GENE4633 52276192.00 HSA16 GENE10518 52363632.00 HSA16	GENE7691 - GENE7690 - GENE10539 - GENE4654 -	2813.00 2821.00 2836.00 2858.00	-GENE7691 -GENE7690 -GENE10539 -GENE4654	CFA02 GENE4648 CFA02 GENE10532 CFA02 GENE4646 CFA02 GENE10530	59652920.00 59652920.00 59814432.00 59921808.00
GENE4635 53103724.00 HSA16 GENE10520 53306172.00 HSA16 GENE4636 53507588.00 HSA16 GENE10521 53638068.00 HSA16 GENE4637 54179664.00 HSA16	GENE10536 - GENE4649 - GENE4652 - GENE10537 - GENE4653 -	2872.00 2887.00 2907.00 2911.00 2915.00	- GENE10536 - - GENE4649 - - GENE4652 - - GENE10537 - - GENE4653 -	CFR02 GENE4645 CFR02 GENE4644 CFR02 GENE10528 CFR02 GENE4642 CFR02 GENE10527	59956568.00 60039768.00 60161868.00 60275040.00 60275040.00
GENE10522 54736652.00 HSA16 GENE4638 55139780.00 HSA16 GENE10523 55302076.00 HSA16 GENE4639 55361452.00 HSA16	GENE4651 - GENE4648 - GENE4650 - GENE10533 -	2919.00 2923.00 2927.00 2931.00	-GENE4651 -GENE4648 -GENE4650 -GENE10533	CFA02 GENE13302 CFA02 GENE4641 CFA02 GENE10525 CFA02 GENE4640	60354232.00 60422264.00 60422264.00 60917876.00
GENE4640 55680604.00 HSA16 GENE10525 56164088.00 HSA16 GENE4641 56218176.00 HSA16 GENE13302 56314496.00 HSA16 GENE13302 56314496.00 HSA16	GENE10534 - GENE10530 - GENE4573 - GENE4646 - GENE10532 -	2935.00 2949.00 2957.00 2961.00 2965.00	- GENE 10534 - GENE 10530 - GENE 4573 - GENE 4646 - GENE 10532	CFA02 GENE4639 CFA02 GENE10523 CFA02 GENE4638 CFA02 GENE10522 CF002 CENE10522	61052584.00 61119632.00 61239124.00 61786508.00
GENE10527 56399528.00 HSA16 GENE10528 56590168.00 HSA16 GENE4645 56835368.00 HSA16 GENE10530 56890560.00 HSA16	GENE4645 - GENE10528 - GENE4644 - GENE4642 -	2969.00 2973.00 2981.00 2985.00	-GENE4645 -GENE10528 -GENE4644 -GENE4642	CFA02 GENE10521 CFA02 GENE10521 CFA02 GENE10520 CFA02 GENE10520 CFA02 GENE4635	62613044.00 62773976.00 62936752.00 62936752.00
GENE4644 56950296.00 HSA16 GENE4646 56981532.00 HSA16 GENE10532 57191296.00 HSA16 GENE4648 57265960.00 HSA16	GENE10527 - GENE10527 - GENE13302 - GENE4641 - GENE10523 -	2994.00 3003.00 3007.00 3011.00	-GENE10527 -GENE13302 -GENE4641 -GENE10523	CFA02 GENE10518 CFA02 GENE4633 CFA02 GENE10517 CFA02 GENE4630	63475040.00 63713348.00 64038680.00 65244916.00
GENE10533 57321908.00 HSH16 GENE4649 57376536.00 HSA16 GENE10534 57464480.00 HSA16 GENE4650 57561712.00 HSA16 GENE4651 57728328.00 HSA16	GENE4637 - GENE10522 - GENE4639 - GENE10525 -	3031.00 3031.00 3047.00 3066.00 3097.00	-GENE4637 -GENE4637 -GENE10522 -GENE4639 -GENE10525	CFR02 GENE4629 CFR02 GENE4628 CFR02 GENE10513 CFR02 GENE10512 CFR02 GENE4626	65637300.00 65824960.00 65915716.00 66275080.00 66455124.00
GENE10536 57803932.00 HSA16 GENE4652 57938320.00 HSA16 GENE10537 57976768.00 HSA16 GENE4653 58076604.00 HSA16	GENE4638 - BAC_376-H1 GENE10521 - GENE4633 - GENE4633 -	3114.00 3129.00 3138.00 3147.00	-GENE4638 BAC_376-M1 -GENE10521 -GENE4633	CFA02 GENE10511 CFA02 GENE13300 CFA02 GENE4624 CFA02 GENE4623	66833312.00 67412056.00 67497816.00 68069752.00
GENE4654 58328788.00 HSH16 GENE10539 58525200.00 HSA16 GENE33 10209705.00 HSA01 GENE11808 10415726.00 HSA01 GENE11809 10849297.00 HSA01	GENE10516 - GENE4636 - GENE10520 - GENE4635 - GENE10517 -	3151.00 3155.00 3163.00 3172.00 3187.00	-GENE10518- -GENE4636 -GENE10520 -GENE4635 -GENE10517	CFR02 GENE120 CFR02 GENE119 CFR02 GENE118 CFR02 GENE6026 CFR02 GENE117	687759928.00 68957952.00 68927952.00 69005768.00 69088952.00
GENE5943 10851367.00 HSA01 GENE5944 10916283.00 HSA01 GENE36 10963752.00 HSA01 GENE5946 11442362.00 HSA01	-GENE4628 - -GENE10512 - -GENE4629 - -GENE4630 -	3216.00 3229.00 3237.00 3250.00	-GENE4628 -GENE10512 -GENE4629 -GENE4630	CFA02 GENE6025 CFA02 GENE115 CFA02 GENE6024 CFA02 GENE6023	69186416.00 69350160.00 69350160.00 69528440.00
GENE38 11475829.00 HSA01 GENE5948 11692205.00 HSA01 GENE40 11751326.00 HSA01 GENE11813 11873939.00 HSA01 GENE42 12319814.00 HSA01	GENE10513 - GENE4626 - GENE10511 - GENE118 - GENE119 -	3254.00 3258.00 3262.00 3272.00 3284.00	- GENE10513 - GENE4626 - GENE10511 - GENE118 - GENE119	CFA02 GENE113 CFA02 GENE112 CFA02 GENE111 CFA02 GENE6019 CFA02 GENE6019	69763536.00 69924720.00 70083800.00 70219184.00 70267152.00
GENE5951 12406988.00 HSA01 GENE43 12496652.00 HSA01 GENE5953 13405744.00 HSA01 GENE45 14749307.00 HSA01	GENE119 - GENE120 - GENE4623 - GENE4624 - BAC_381-J4	3289.00 3294.00 3299.00 3304.00	-GENE120 -GENE4623 -GENE4624 BAC_381-J4	CFA02 GENE6018 CFA02 GENE6017 CFA02 GENE108 CFA02 GENE6016	70354976.00 70476952.00 70647432.00 70761608.00
GENES954 14790642.00 HSA01 GENE5955 15030798.00 HSA01 GENE48 15272213.00 HSA01 GENE5960 15918734.00 HSA01 GENE5964 16990796 00 HSA01	GENE13300 - GENE117 - GENE6025 - GENE6026 -	3347.00 3351.00 3355.00 3364.00	-GENE117 -GENE6025 -GENE6026 -GENE115	CFH02 GENE6015 CFA02 GENE106 CFA02 GENE105 CFA02 GENE6013 CFA02 GENE104	70097584.00 71908064.00 72096728.00 72164880.00 72352360.00
GENE11818 17129776.00 HSA01 GENE57 17295046.00 HSA01 GENE5966 17533304.00 HSA01 GENE58 17985648.00 HSA01 GENE58	GENE6024 - GENE6023 - GENE6018 - GENE6017 -	3373.00 3377.00 3380.00 3385.00	-GENE6024 -GENE6023 -GENE6018 -GENE6017 -GENE110	CFA02 GENE11833 CFA02 GENE103 CFA02 GENE102 CFA02 GENE6010	72404512.00 72476096.00 72846112.00 72846112.00
GENESS 18599174.00 HSA01 GENES968 18933892.00 HSA01 GENE60 19035188.00 HSA01 GENES970 19413144.00 HSA01 GENE62 19474484 00 HSA01	-GENE110 - -GENE6019 - -GENE113 - -GENE111 -	3406.00 3428.00 3437.00 3453.00	-GENE6019 -GENE113 -GENE111 -GENE111	CFH02 GENE6011 CFA02 GENE101 CFA02 GENE6009 CFA02 GENE100 CFA02 GENE11000	72046112.00 73016544.00 73159208.00 73210968.00 73210968.00
GENE64 19771518.00 HSR01 GENE65 19914720.00 HSR01 GENE66 20149204.00 HSR01 GENE66 20149204.00 HSR01 GENE5975 20295968.00 HSR01	GENE112 - GENE6016 - GENE108 - GENE6015 - GENE105 -	3510.00 3525.00 3554.00 3585.00	-GENE6016 -GENE108 -GENE6015 -GENE105	CFA02 GENE99 CFA02 GENE6007 CFA02 GENE11831 CFA02 GENE97	73283376.00 73343048.00 73418576.00 73547464.00
GENE5977 20796458.00 HSA01 GENE69 21068568.00 HSA01 GENE5978 21359872.00 HSA01 GENE70 21407268.00 HSA01 GENE70 21407268.00 HSA01	-GENE6013 - -GENE106 - -GENE104 - -GENE11833 - -CENE102 -	3589.00 3594.00 3610.00 3615.00 3625.00	-GENE6013 -GENE106 -GENE104 -GENE11833 -CENE102	CFA02 GENE6006 CFA02 GENE95 CFA02 GENE6005 CFA02 GENE93 CFA02 GENE93	73547464.00 73713968.00 73713968.00 74009264.00
GENE71 21501362.00 HSH01 GENE71 21647400.00 HSA01 GENE11820 21776752.00 HSA01 GENE5981 22320150.00 HSA01 GENE73 22398868.00 HSA01	GENE6010 - GENE103 - GENE6011 - GENE101 -	3630.00 3639.00 3653.00 3657.00	-GENE6010 -GENE6010 -GENE103 -GENE6011 -GENE101	CFA02 GENE52 CFA02 GENE5998 CFA02 GENE5997 CFA02 GENE89 CFA02 GENE88	7459004.00 74590040.00 74698824.00 74698824.00 74698824.00
GENE74 22709342.00 HSA01 GENE11821 22881322.00 HSA01 GENE11821 22973736.00 HSA01 GENE11822 22973736.00 HSA01 GENE76 23226188.00 HSA01	GENE6009 - GENE100 - GENE97 - GENE11831 -	3665.00 3670.00 3679.00 3684.00	-GENE6009 -GENE100 -GENE97 -GENE11831	CFA02 GENE87 CFA02 GENE5994 CFA02 GENE85 CFA02 GENE5993	74901848.00 75203656.00 75203656.00 75304176.00
GENE77 23353484.00 HSH01 GENE78 23466672.00 HSA01 GENE5987 23582914.00 HSA01 GENE81 23798804.00 HSA01 GENE5990 24041500.00 HSA01	GENE92 - GENE95 - GENE6006 - GENE99 - GENE11832 -	3693.00 3693.00 3704.00 3722.00 3744.00	-GENE92 -GENE95 -GENE95 -GENE99 -GENE11832	CFR02 GENE84 CFR02 GENE11826 CFR02 GENE5992 CFR02 GENE11825 CFR02 GENE82	75505256.00 75539016.00 75594112.00 75673880.00 75885136.00
GENES2 24096688.00 HSA01 GENE11825 24349768.00 HSA01 GENE5992 24520244.00 HSA01 GENE11826 24576894.00 HSA01	GENE6007 - GENE6005 - GENE93 - GENE5998 -	3749.00 3762.00 3766.00 3770.00	-GENE6007 -GENE6005 -GENE93 -GENE5998	CFA02 GENE5990 CFA02 GENE81 CFA02 GENE5987 CFA02 GENE78	75952608.00 76179168.00 76394608.00 76490024.00
GENE84 24604872.00 HSA01 GENE5993 24900404.00 HSA01 GENE85 24921616.00 HSA01 GENE5994 25224974.00 HSA01 GENE87 25576540 44	GENE5997 - GENE89 - BAC_375-G12 GENE88 -	3779.00 3784.00 3789.00 3794.00 3803.00	-GENE89 BAC_375-G12 -GENE88 -GENE88	CFR02 GENE77 CFR02 GENE76 CFR02 GENE11822 CFR02 GENE11821 CFR02 OFNE72	76559864.00 76655600.00 76772168.00 77082288.00 77082288.00
GENESS 25793316.00 HSA01 GENE5997 25835520.00 HSA01 GENES99 25920468.00 HSA01 GENE5998 25997996.00 HSA01	GENE5994 - GENE5993 - GENE85 - GENE85 - GENE84 -	3836.00 3841.00 3845.00 3854.00	- GENE5994 - GENE5993 - GENE85 - GENE84	CFA02 GENE73 CFA02 GENE5981 CFA02 GENE11820 CFA02 GENE71	77337312.00 77499200.00 77888920.00 78009832.00
GENE92 26401626.00 HSA01 GENE93 26701964.00 HSA01 GENE95 26943988.00 HSA01 GENE6005 27228942.00 HSA01 GENE97 27295401 00 HSA01	GENE11826 - GENE5992 - GENE11825 - GENE5990 -	3858.00 3866.00 3875.00 3879.00 3887.00	-GENE11826 -GENE5992 -GENE11825 -GENE5990 -GENE82	CFR02 GENE5979 CFR02 GENE10165 CFR02 GENE70 CFR02 GENE5978 CFR02 GENE5978	78087584.00 78087584.00 78204592.00 78258528.00 78426872.00
GENE6006 27325384.00 HSA01 GENE11831 27478252.00 HSA01 GENE6007 27542740.00 HSA01 GENE99 27599396.00 HSA01	GENE02 - GENE01 - GENE77 - GENE76 - GENE11822 -	3894.00 3898.00 3902.00 3915.00	-GENE81 -GENE77 -GENE76 -GENE11822	CFA02 GENE5977 CFA02 GENE5975 CFA02 GENE66 CFA02 GENE65	78608472.00 79066384.00 79210432.00 79408888.00
GENELII032 27685928.00 HSA01 GENEL00 27781008.00 HSA01 GENE6009 27807452.00 HSA01 GENEL01 27919700.00 HSA01 GENE6010 28124100 00 HSA01	GENE11821 - GENE78 - GENE5987 - GENE74 -	3929.00 3941.00 3944.00 3952.00 3956.00	-GENE78 -GENE5987 -GENE74 -GENE5981	CFH02 GENE64 CFA02 GENE62 CFA02 GENE5970 CFA02 GENE60 CFA02 GENE5060	/9408688.00 79661328.00 79802080.00 80040352.00 80137520.00
GENE102 28212336.00 HSA01 GENE6011 28261644.00 HSA01 GENE103 28716188.00 HSA01 GENE11833 28756328.00 HSA01		3959.00 3967.00 3976.00 3984.00	-GENE73 -GENE5978 -GENE5979 -GENE71	CFA02 GENE59 CFA02 GENE58 CFA02 GENE5966 CFA02 GENE57	80375824.00 80974400.00 81253920.00 81471880.00
GENE104 28876664.00 HSA01 GENE6013 29130480.00 HSA01 GENE105 29168532.00 HSA01 GENE106 29339082.00 HSA01 GENE6045	GENE70 - GENE69 - GENE11820 - GENE11820 - GENE10165 -	4005.00 4037.00 4048.00 4052.00	-GENE70 -GENE69 -GENE11820 -GENE10165 -GENE5077	CFA02 GENE11818 CFA02 GENE5964 CFA02 GENE5960 CFA02 GENE48 CF002 CENE48	81580952.00 81662200.00 82185560.00 82669680.00
GENEGO16 30691100.00 HSA01 GENEGO16 30851820.00 HSA01 GENE108 30939190.00 HSA01 GENEGO17 31163140.00 HSA01 GENEGO18 31339308.00 HSA01	-GENE5977 - -GENE5975 - -GENE65 - -GENE66 - -GENE66 -	4063.00 4067.00 4083.00 4083.00	-GENE5975 -GENE65 -GENE66 -GENE64	CFA02 GENE5955 CFA02 GENE5954 CFA02 GENE45 CFA02 GENE5953 CFA02 GENE5953	02052788.00 83052720.00 83088384.00 84175008.00 84390448.00
GENE110 31408270.00 HSA01 GENE6019 31551108.00 HSA01 GENE111 31650864.00 HSA01 GENE112 31781980.00 HSA01		4100.00 4104.00 4109.00 4113.00	-GENE5970 -GENE62 -GENE60 -GENE5968	CFA02 GENE5951 CFA02 GENE42 CFA02 GENE11813 CFA02 GENE40	84467696.00 84543552.00 86419328.00 86516368.00
GENEL113 32005788.00 HSA01 GENE6023 32345796.00 HSA01 GENE115 32567844.00 HSA01 GENE6024 32662748.00 HSA01 GENE6025 32794.040 00 HSA01	-GENE59 - -GENE58 - -GENE57 - -GENE5766 -	+117.00 4126.00 4139.00 4143.00 4147.00	-GENE58 -GENE57 -GENE5766 -GENE11818	CFH02 GENE5948 CFA02 GENE38 CFA02 GENE5946 CFA02 GENE5944 CFA02 GENE5944	86571800.00 86743984.00 86765104.00 87108864.00 87108864.00
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GENE120 33458974.00 HSA01 GENE6195 109256344.00 HSA01 GENE10165 76173984.00 HSA14	-GENE45 - - 	4185.00 4185.00 4197.00 4201.00 4204.00	-GENE5954 BAC_381-H12 -GENE5953 -GENE42		
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	-GENE33 - -GENE11809 - -GENE5944 - -GENE36 -	4284.00 4297.00 4305.00 4335.00	-GENE33 -GENE11809 -GENE5944 -GENE36		

RH MAP CFA03

GENE12561 117386472.00 HSA07 GENE2250 130440768.00 HSA06		0.00 8.00	-GENE1847CFA01CFA01CFA01CFA03CFA0	2250 71695528.00 1847 3080273.00
GENE7694 74586224.00 HSA05 GENE1796 74874904.00 HSA05 GENE7666 76874904.00 HSA05	GENE7745 - GENE7744 -	32.00 42.00 61.00	-GENE7745 CFA03 GENE -GENE7744 CFA03 GENE CFA03 GENE	7746 3080273.00 7745 3281427.00
GENE17898 75005464.00 HSH05 GENE1799 76037152.00 HSA05 GENE1800 76113072.00 HSA05	GENE1713 //GENE1844 - //GENE7742 -	76.00	-GENE17743	7744 3420051.00 7743 4023076.00 1844 4258162.00
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GENE12393 77088224.00 HSA05 GENE12394 77506928.00 HSA05	-GENE2250 - -GENE7739 -	146.00 246.00	-GENE2250 CFA03 GENE -GENE7739 CFA03 GENE CFA03 GENE	12561 6481940.00 7739 10526773.00
GENE12395 77867520.00 HSH05 GENE1805 78012056.00 HSA05 GENE7704 78344192.00 HSA05	-GENE1839 - -GENE7738 - -GENE1840 -	254.00 257.00 262.00	- GENE 1839	1840 10775593.00 7738 10832587.00 1839 10982878.00
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GENE1808 78752064.00 HSA05 GENE7707 79036392.00 HSA05 GENE1810 79462248.00 HSA05	-GENE7735 - -GENE7732 - -GENE7731 -	308.00 333.00 336.00	- GENE 7735 CFA03 GENE - GENE 7732 CFA03 GENE - GENE 7731 CFA03 GENE	7735 12756762.00 7734 14237150.00 1835 15435054.00
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GENE1812 79893400.00 HSA05 GENE1813 80049936.00 HSA05 GENE1814 80643280.00 HSA05	-GENE1835 - -GENE1832 - -GENE12402 -	348.00 356.00 365.00	- GENE1835 CFA03 GENE - GENE1832 CFA03 GENE - GENE12402 CFA03 GENE	7731 15750624.00 1832 15750624.00 12402 15750624.00
GENE7714 81556640.00 HSA05 GENE1816 81796680.00 HSA05		372.00 384.00	-GENE7730	7730 16175100.00 1830 16554754.00
GENE1817 82550720.00 HSA05 GENE7717 83098240.00 HSA05 GENE12398 85997704 00 HSA05	-GENE1829 - -GENE7728 - -GENE7727 -	387.00 393.00 402.00	- GENE 1829 CFA03 GENE - GENE7728	7728 16769221.00 1829 16971082.00 7727 16971082.00
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GENE7725 93929760.00 HSH05 GENE1827 94040320.00 HSA05 GENE7726 94095880.00 HSA05	GENE/7/21 GENE1822 - GENE1821 -	521.00 527.00	-GENE/7/21	1822 22754008.00 12399 23142408.00 1821 23251714.00
GENE1826 94184704.00 HSA05 GENE7727 94836976.00 HSA05	GENE1820 - GENE182099 - CENE12398	537.00 550.00 595.00	- GENE1820	1820 23916004.00 12398 24509044.00
GENE1829 94924536.00 HSH05 GENE7728 95065352.00 HSA05 GENE1830 95197808.00 HSA05	GENE12390 - GENE7714 - BAC_381-J8	623.00 627.00	-GENE12398 CFA03 GENE -GENE7714 CFA03 GENE BAC_381-J8 CFA03 GENE	7717 26884144.00 1817 27466442.00 7714 28018960.00
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GENE7745 111832696.00 HSA05 GENE1847 112212344.00 HSA05	GENE12392 - GENE7699 -	843.00 847.00	-GENE12392	1799 32798224.00 7696 33629948.00
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GENE10221 20410384.00 HSA15 GENE4335 20552804.00 HSA15 GENE4336 2125404.00 HSA15	GENE4335	907.00 923.00 927.00	- GENE4335 CFR03 GENE GENE13663 CFR03 GENE	4335 34823848.00 10230 35011252.00 4341 35070001 00
GENE10222 21439160.00 HSA15 GENE4338 22910428.00 HSA15	GENE 1796 - GENE 7694 - GENE 10221 -	931.00 938.00	-GENE7694	10226 35258984.00 10225 36944664.00
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GENE4342 27204354.00 HSA15 GENE10228 27276190.00 HSA15	GENE 10222 GENE 4336 GENE 10233	1261.00 1274.00	-GENE4336	13733 40848508.00 4345 40993784.00
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GENE10234 30039092.00 HSA15 GENE4487 72141280.00 HSA15	GENE4345 - GENE4346 -	1293.00 1296.00	-GENE4345	10228 41604152.00 13284 42668556.00
GENE4483 76020976.00 HSA15 GENE4483 76020976.00 HSA15 GENE4484 76189960.00 HSA15	GENE 13733 - GENE 10227 - GENE 10228 -	1316.00 1337.00 1344.00	-GENE10227	+327 42668556.00 10412 42668556.00 4526 42898936.00
GENE10370 76282080.00 HSA15 GENE4485 76300744.00 HSA15	GENE4342 - BAC_380-L2	1350.00 1393.00 1399.00	-GENE4342 CFA03 GENE BAC_380-L2 CFA03 GENE CFA03 GENE	4525 43369312.00 4524 43828256.00
GENE4498 76364256.00 HSH15 GENE10373 76901608.00 HSA15 GENE13769 76935536.00 HSA15	GENE 13204 - GENE 13204 - GENE 13204 - GENE 13204 - GENE 13204 - GENE 13204 - GENE 13204 -	1402.00 1405.00	-GENE13284	44033132.00 4523 44361464.00 4522 44817928.00
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GENE4492 78457392.00 HSA15 GENE10378 78762264.00 HSA15 GENE10379 78986320 00 HS015		1464.00 1543.00 1581.00	- GENE4522	4518 51112380.00 4505 52130536.00 10391 52667492.00
GENE10375 70300320.00 HSH13 GENE10380 79190144.00 HSA15 GENE4495 79340472.00 HSA15	-GENE10391 - -GENE10404 -	1605.00 1611.00	-GENE10391	4506 52919352.00 10392 53917124.00
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GENE13281 81056384.00 HSA15 GENE10384 81210952.00 HSA15	-GENE4519 - BRC_374-E13	1653.00 1657.00	-GENE4519 - CFA03 GENE BAC_374-E13 CFA03 GENE	10394 54783836.00 13282 54783836.00
GENE4499 81377512.00 HSA15 GENE10385 81406352.00 HSA15 GENE4500 81511088.00 HSA15	-GENE4518 - -GENE10395 - -GENE10394 -	1660.00 1695.00 1706.00	-GENE4518 CFA03 GENE -GENE10395 CFA03 GENE -GENE10394 CFA03 GENE	4509 54783836.00 10395 54970948.00 4510 55021660.00
GENE10386 81546016.00 HSA15 GENE13772 82043872.00 HSA15	GENE4510 - GENE13282 -	1710.00 1713.00	-GENE4510 CFA03 GENE -GENE13282 CFA03 GENE	10396 55131008.00 10397 55257024.00
GENE4508 82287880.00 HSA15 GENE4502 82370808.00 HSA15 GENE4509 82547760.00 HSA15	GENE4508 GENE10392 - GENE4507 -	1717.00 1727.00 1737.00	- GENE4508 CFA03 GENE - GENE10392 CFA03 GENE - GENE4507 CFA03 GENE	10398 55407876.00 4513 55444468.00 4514 55590936.00
GENE10388 82942640.00 HSA15 GENE4503 83074512.00 HSA15	GENE13773 - GENE10396 -	1741.00 1745.00	-GENE13773 CFA03 GENE GENE10396 CFA03 GENE CFA03 GENE	10400 55590936.00 10399 55590936.00
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GENE4506 84552408.00 HSA15 GENE10392 85850344.00 HSA15 GENE4507 86201280.00 HSA15	GENE 10400 - GENE 10399 - GENE 13283 -	1/84.00 1800.00 1831.00	- GENE 10400	10401 56670432.00 10388 56893448.00 4503 57061196.00
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GENE10401 88756000.00 HSA15 GENE4516 88866288.00 HSA15	GENE10384 - - GENE4499 -	1922.00 1925.00	-GENE10384 CFA03 GENE -GENE4499 CFA03 GENE	4502 58602892.00 4496 58748152.00
GENE10403 89066784.00 HSH15 GENE13283 89154224.00 HSA15 GENE4517 89215136.00 HSA15	GENE4500 - GENE10386 - GENE13772 -	1945.00 1951.00 1957.00	- GENE4500 CFA03 GENE - GENE10386	13280 58876304.00 4495 59395132.00 10380 59487664.00
GENE4518 90188984.00 HSA15 GENE10404 90418576.00 HSA15	GENE9964 - GENE4502 - CENE13280	1964.00 1967.00 1980.00	-GENE9964	10379 59679280.00 10378 59855368.00
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GENE4527 95663456.00 HSA15 GENE4522 96985440.00 HSA15 GENE4523 97608592.00 HSA15	GENE10380 - GENE10380 - GENE10380 - GENE10380 - GENE10389 -	2041.00 2050.00 2053.00	-GENE10380	13770 60703252.00 4489 60841672.00 10374 61026268.00
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GENE7323 89794392.00 HSA13 GENE1043 3860853.00 HSA03	GENE4487 - GENE10373 -	2150.00 2156.00 2208.00	-GENE4487 - CFA03 GENE -GENE10373 - CFA03 GENE GENEF4483 - CFA03 GENE	7330 62133804.00 7332 62995764.00
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GENE1445 17575708.00 HSA04 GENE12315 20465118.00 HSA04	GENE1470 - GENE7326 -	2955.00 2971.00	-GENE1470 -GENE7326 -GENE7321 -GENE7321	1465 76184752.00 7367 76184752.00
GENE7350 20761734.00 HSA04 GENE7350 21221930.00 HSA04 GENE12975 22501326.00 HSA04	GENE7371 	3010.00 3016.00	-GENE1469 -GENE1462 -GENE1462	7365 76600768.00 7365 76600768.00 1462 76718080.00
GENE1449 23566188.00 HSA04 GENE7352 24278692.00 HSA04 GENE12316 24786644 00 HSA04	GENE1468 - GENE7369 -	3019.00 3022.00 3035.00	-GENE1468 - CFA03 GENE -GENE7369 - CFA03 GENE -GENE12322 - CFA03 GENE	12321 76718080.00 7362 77046736.00 1460 77265222 00
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GENE7366 39305928.00 HSA04 GENE1465 39367816.00 HSA04	GENE 1959 - BAC_380-F18 GENE7354 -	3518.00 3553.00	BAC_380-F18 -GENE7354 CFA03 GENE CFA03 GENE CFA03 GENE	12315 92161392.00 12315 92181392.00 7348 94540632.00
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Note Note<	GENE8897 98488808.00 HSA09 GENE551 226348192.00 HSA01 GENE6458 226394176.00 HSA01 GENE6458 226594688.00 HSA01 GENE6459 226635312.00 HSA01 GENE6459 226635312.00 HSA01	GENE3262 - GENE3270 - GENE3172 - GENE8897 - GENE9068 - GENE3173 -	0.00 9.00 63.00 107.00 130.00 139.00	- GENE3262	CFA28 GENE3270 CFA09 GENE10699 CFA04 GENE3262 CFA04 GENE3172 CFA04 GENE9068 CFA04 GENE9068	9745055.00 36992268.00 3069505.00 3145562.00 3236927.00
	GENE6460 227346944.00 HSA01 GENE554 227493120.00 HSA01 GENE6461 227838192.00 HSA01 GENE6461 227838192.00 HSA01 GENE6462 227929888.00 HSA01		149.00 151.00 165.00 191.00 209.00	-GENE6480	CFA04 GENE3173 CFA04 GENE6480 CFA04 GENE6479 CFA04 GENE573 CFA04 GENE572	3633263.00 3633263.00 3633263.00 3633263.00 4990954.00
	GENE556 228014224.00 HSA01 GENE557 228165600.00 HSA01 GENE6464 228412096.00 HSA01 GENE558 228506384.00 HSA01 GENE559 228735536.00 HSA01		216.00 223.00 240.00 257.00 277.00	-GENE6478	CFA04 GENE571 CFA04 GENE6478 CFA04 GENE6477 CFA04 GENE6476 CFA04 GENE570	5282066.00 5334563.00 5491917.00 6275802.00 6275802.00
	GENE6466 228872112.00 HSA01 GENE560 229683216.00 HSA01 GENE6467 230025472.00 HSA01 GENE561 230175888.00 HSA01 GENE561 230358784 00 HSA01	GENE568 - GENE567 - BAC_376-J5 GENE6472 - GENE11989 -	302.00 318.00 332.00 348.00 365.00	-GENE568 -GENE567 BAC_376-J5 -GENE6472 -GENE11989	CFA04 GENE569 CFA04 GENE568 CFA04 GENE567 CFA04 GENE6472 CFA04 GENE6472	6534616.00 6809021.00 7193187.00 7523084.00 775258.00
	GENES62 230598528.00 HSA01 GENE6469 230890864.00 HSA01 GENE6469 231645536.00 HSA01 GENE6470 231876064.00 HSA01 GENE6470 231876064.00 HSA01	GENE565 - GENE564 - GENE563 - GENE6470 - CENE6470 -	386.00 415.00 425.00 449.00 489.00	- GENE565	CFA04 GENE565 CFA04 GENE565 CFA04 GENE564 CFA04 GENE56470 CFA04 GENE563	7765358.00 8106356.00 8193272.00 8389644.00
	GENE11989 232336000.00 HSA01 GENE565 232371328.00 HSA01 GENE6472 232545808.00 HSA01 GENE567 233012896.00 HSA01 GENE567 233012896.00 HSA01	GENE6468 - GENE561 - GENE560 - BAC_382-E22 GENE6467	506.00 515.00 518.00 521.00	-GENE6468 -GENE561 -GENE560 BAC_382-E22	CFA04 GENE562 CFA04 GENE562 CFA04 GENE561 CFA04 GENE561 CFA04 GENE6467	9281830.00 9543793.00 9753587.00 9906661.00
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	GENE6478 235088704.00 HSA01 GENE571 235107312.00 HSA01 GENE572 235741872.00 HSA01 GENE573 236911904.00 HSA01 GENE6479 237091008.00 HSA01		620.00 626.00 635.00 641.00 648.00	- GENE556 - GENE555 - GENE557 - GENE6464 - GENE559	CFA04 GENE557 CFA04 GENE556 CFA04 GENE555 CFA04 GENE6462 CFA04 GENE6461	11442438.00 11556134.00 11668301.00 11668301.00 11668301.00 11728081.00
	GENE6480 237111648.00 HSA01 GENE10699 28934012.00 HSA17 GENE3172 37820296.00 HSA10 GENE9068 38264476.00 HSA10 GENE3173 38407272.00 HSA10	GENE6466 - GENE6462 - GENE6461 - GENE6460 - GENE6460 - GENE553 -	660.00 680.00 682.00 694.00 714.00	- GENE6466	CFA04 GENE554 CFA04 GENE6460 CFA04 GENE553 CFA04 GENE6459 CFA04 GENE552	12069026.00 12187964.00 12638110.00 12733948.00 12783478.00
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No. <th>GENE9096 60956140.00 HSA10 GENE3202 61163548.00 HSA10 GENE9097 61892200.00 HSA10 GENE3203 61972700.00 HSA10 GENE13147 62517616.00 HSA10</th> <th>GENE 9095 - GENE 9095 - GENE 9096 - GENE 3202 - GENE 9097 - GENE 9097 - GENE 3203 -</th> <th>844.00 847.00 856.00 872.00 884.00</th> <th>- GENE9095</th> <th>CFR04 GENE3202 CFR04 GENE9097 CFR04 GENE3203 CFR04 GENE13147 CFR04 GENE3204</th> <th>15395656.00 16096326.00 16173073.00 16588511.00 17074836.00</th>	GENE9096 60956140.00 HSA10 GENE3202 61163548.00 HSA10 GENE9097 61892200.00 HSA10 GENE3203 61972700.00 HSA10 GENE13147 62517616.00 HSA10	GENE 9095 - GENE 9095 - GENE 9096 - GENE 3202 - GENE 9097 - GENE 9097 - GENE 3203 -	844.00 847.00 856.00 872.00 884.00	- GENE9095	CFR04 GENE3202 CFR04 GENE9097 CFR04 GENE3203 CFR04 GENE13147 CFR04 GENE3204	15395656.00 16096326.00 16173073.00 16588511.00 17074836.00
	GENE3204 62687244.00 HSA10 GENE13479 63172260.00 HSA10 GENE3205 63321352.00 HSA10 GENE9099 63344688.00 HSA10 GENE9100 63504380.00 HSA10	GENE13147 - BAC_372-H7 GENE3204 - GENE13479 - GENE13479 - GENE3205 -	905.00 908.00 918.00 921.00 934.00	- GENE13147 BAC_372-M7 - GENE3204 - GENE13479 - GENE3205	CFA04 GENE13479 CFA04 GENE3205 CFA04 GENE9099 CFA04 GENE9100 CFA04 GENE9101	17241718.00 17354228.00 17354228.00 17634360.00 18018840.00
	GENE9101 64323488.00 HSA10 GENE3207 64670748.00 HSA10 GENE3208 68915440.00 HSA10 GENE9103 69020584.00 HSA10 GENE3209 69137152.00 HSA10	GENE9099 - GENE9100 - GENE3207 - GENE9101 - BAC 374-G23	943.00 961.00 1001.00 1019.00 1052.00	-GENE9099	CFA04 GENE3207 CFA04 GENE3208 CFA04 GENE9103 CFA04 GENE3209 CFA04 GENE3210	18565700.00 22296880.00 22397140.00 22574760.00 22574760.00
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	GENE3221 71641760.00 HSA10 GENE3221 71641760.00 HSA10 GENE9116 71702320.00 HSA10 GENE3222 71861840.00 HSA10 GENE9117 71885832.00 HSA10	GENE3227 - GENE9122 - GENE9122 - GENE9123 - GENE9111 -	1286.00 1294.00 1306.00 1314.00	-GENE3227 -GENE9122 -GENE3225 -GENE9113	CFA04 GENE9116 CFA04 GENE3222 CFA04 GENE9117 CFA04 GENE9118 CFA04 GENE9108	24702780.00 24793356.00 24851528.00 24987100.00
	GENE3110 72039360.00 HSH10 GENE3224 72397488.00 HSA10 GENE3119 72465824.00 HSA10 GENE3226 72679456.00 HSA10 GENE3120 72819176.00 HSA10	GENE91110 - GENE91100 - GENE134800 - GENE91090 - GENE9108 -	1322.00 1332.00 1341.00 1347.00 1390.00	GENE9110 -GENE9110 -GENE13480 -GENE9109 -GENE9108	CFA04 GENE3224 CFA04 GENE9119 CFA04 GENE9120 CFA04 GENE13148 CFA04 GENE3225	25250106.00 25337304.00 25611268.00 25755698.00 25755698.00
No. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	GENE3225 72902632.00 HSA10 GENE13148 72916616.00 HSA10 GENE9121 73109768.00 HSA10 GENE3227 73163344.00 HSA10 GENE9122 73337264.00 HSA10	GENE9107 - GENE9105 - GENE3210 - GENE9104 - GENE9103 -	1438.00 1450.00 1453.00 1459.00 1481.00	-GENE9107 - -GENE9105 - -GENE9104 - -GENE9103 -	CFR04 GENE3226 CFR04 GENE9121 CFR04 GENE3227 CFR04 GENE9122 CFR04 GENE13483	25755698.00 25898282.00 25987738.00 26087672.00 26256414.00
A A	GENE13483 73637072.00 HSA10 GENE3229 73963256.00 HSA10 GENE3230 74134608.00 HSA10 GENE13484 74235824.00 HSA10 GENE3231 74297072.00 HSA10	BAC_373-E8 GENE13481 - GENE13482 - GENE3226 - GENE13483 -	1511.00 1522.00 1525.00 1532.00 1542.00	BAC_373-E8 -GENE13481 -GENE13482 -GENE3226 -GENE13483 -GENE13483	CFA04 GENE3229 CFA04 GENE3230 CFA04 GENE13484 CFA04 GENE3231 CFA04 GENE9126	26765754.00 26765754.00 26902996.00 27013028.00 27075440.00
	GENE9126 74379640.00 HSA10 GENE3232 74487008.00 HSA10 GENE9127 74574504.00 HSA10 GENE3233 74621424.00 HSA10 GENE13485 74744832.00 HSA10		1555.00 1568.00 1584.00 1587.00 1593.00	- GENE3229	CFA04 GENE3232 CFA04 GENE9127 CFA04 GENE3233 CFA04 GENE9129 CFA04 GENE13485	27129964.00 27217814.00 27217814.00 27367876.00 27367876.00
	GENE3234 74873040.00 HSA10 GENE9129 74895280.00 HSA10 GENE3235 75208416.00 HSA10 GENE9130 75693296.00 HSA10 GENE9131 76212248.00 HSA10	GENE9127 - GENE9129 - GENE3233 - GENE13485 - GENE3234 -	1606.00 1618.00 1621.00 1624.00 1627.00	-GENE9127	CFA04 GENE3234 CFA04 GENE3235 CFA04 GENE9130 CFA04 GENE9131 CFA04 GENE13486	27367876.00 27656036.00 28130832.00 28553124.00 28688552.00
Normal of the second of t	GENE13486 76323392.00 HSA10 GENE3238 76506536.00 HSA10 GENE9134 78007256.00 HSA10 GENE3239 78223136.00 HSA10 GENE3239 78750176.00 HSA10	GENE3235 - GENE9130 - GENE3232 - GENE13486 - GENE3238 -	1642.00 1664.00 1714.00 1795.00 1801.00	-GENE3235 -GENE9130 -GENE3232 -GENE13486 -GENE3238	CFR04 GENE3238 CFR04 GENE9134 CFR04 GENE3239 CFR04 GENE3240 CFR04 GENE3240	28792816.00 29776366.00 30202648.00 30917148.00 30917148.00
	GENE13149 78933008.00 HSA10 GENE3241 78938640.00 HSA10 GENE9135 78991864.00 HSA10 GENE13487 79111672.00 HSA10 GENE13488 79117952 00 HSA10	GENE9131 - GENE9134 - GENE3239 - GENE3240 - GENE3241 -	1817.00 1852.00 1881.00 1887.00 1890.00	-GENE9131	CFA04 GENE9135 CFA04 GENE3241 CFA04 GENE13488 CFA04 GENE13487 CFA04 GENE13487	30917148.00 31070124.00 31070124.00 31070124.00 31070124.00
	GENE13100 7917952.00 HSH10 GENE9137 79876152.00 HSA10 GENE9138 80457896.00 HSA10 GENE3244 80498352.00 HSA10 GENE3245 80662808.00 HSA10	GENE 13488 - GENE 13488 - GENE 13149 - GENE 13487 - GENE 13487 - GENE 137	1899.00 1909.00 1916.00 1922.00	GENE 13488	CFR04 GENE9137 CFR04 GENE9138 CFR04 GENE3244 CFR04 GENE3247 CFR04 GENE3246	32293340.00 32340058.00 32462672.00 32627828.00
	GENE3246 81346688.00 HSH10 GENE3247 81590416.00 HSA10 GENE9141 81713848.00 HSA10 GENE3248 81776064.00 HSA10 GENE9142 81846376.00 HSA10	GENE 9137 - GENE 9138 - GENE 3244 - GENE 3247 - GENE 3246 -	1941.00 1977.00 1987.00 2003.00 2013.00	-GENE9137	CFR04 GENE3245 CFR04 GENE9141 CFR04 GENE3248 CFR04 GENE9142 CFR04 GENE3249	32627828.00 32675152.00 32700780.00 32742996.00 32836804.00
	GENE3249 81933272.00 HSH10 0 GENE3250 82070464.00 HSA10 0 GENE9144 85576024.00 HSA10 0 GENE3251 85637280.00 HSA10 0 GENE3252 85937576.00 HSA10 0	GENE 9141 	2022.00 2031.00 2040.00 2060.00 2076.00	-GENE3141	CFA04 GENE3250 CFA04 GENE9144 CFA04 GENE3251 CFA04 GENE3252 CFA04 GENE9146	32981688.00 35591684.00 35664284.00 35845352.00 36342600.00
	GENE9146 86618160.00 HSA10 GENE3253 86877096.00 HSA10 GENE9147 87071144.00 HSA10 GENE3254 87941392.00 HSA10 GENE13489 88085576.00 HSA10	GENE3250 - GENE9144 - GENE3251 - GENE3252 - GENE9146 -	2110.00 2145.00 2154.00 2164.00 2170.00	- GENE3250	CFR04 GENE3253 CFR04 GENE9147 CFR04 GENE3254 CFR04 GENE13489 CFR04 GENE3255	36610184.00 36729404.00 37487872.00 37571888.00 37608804.00
	GENE3255 88149848.00 HSA10 GENE9149 88347512.00 HSA10 GENE3256 88393808.00 HSA10 GENE13150 88486760.00 HSA10 GENE3257 88575512.00 HSA10	BHC_373-C6 -GENE3253 - -GENE9147 - -GENE13472 - -GENE13470 -	2173.00 2179.00 2186.00 2208.00 2216.00	BHC_373-C6 -GENE3253 -GENE9147 -GENE13472 -GENE13470	CFA04 GENE9149 CFA04 GENE5155 CFA04 GENE3256 CFA04 GENE13150 CFA04 GENE3257	37711344.00 37791564.00 37807840.00 37838792.00 37907736.00
Norm	GENE3262 90730800.00 HSA10 GENE3270 93030064.00 HSA10 GENE5155 7934009.00 HSA19 GENE5825 101242928.00 HSAX GENE7134 116318840.00 HSA03		2219.00 2226.00 2240.00 2246.00 2256.00	- GENE3256 - GENE13489 - GENE3254 - GENE3255 - GENE3257	CFA04 GENE3184 CFA04 GENE13470 CFA04 GENE13472 CFA04 GENE1848 CFA04 GENE12408	38039536.00 38102584.00 38180272.00 38479168.00 38579152.00
Norm	GENE1712 14982570.00 HSA05 GENE7613 15296441.00 HSA05 GENE1713 16525981.00 HSA05 GENE7614 16753805.00 HSA05 GENE1714 16807444.00 HSA05	GENE 1848 - GENE 12408 - GENE 13150 - GENE 13150 - GENE 9149 - GENE 5155 -	2272.00 2275.00 2282.00 2289.00 2296.00	- GENE 1848	CFA04 GENE7885 CFA04 GENE7884 CFA04 GENE7883 CFA04 GENE7881 CFA04 GENE12447	38996096.00 39117812.00 39257636.00 39651464.00 39895320.00
Note	GENE7615 17328932.00 HSA05 GENE1715 17856782.00 HSA05 GENE7616 19565668.00 HSA05 GENE1716 20339346.00 HSA05 GENE1716 21795004.00 HSA05	GENE3184 - 	2329.00 2363.00 2366.00 2370.00 2380.00	-GENE3184 -GENE7885 BAC_381-N15 -GENE7884 -GENE7883	CFA04 GENE1982 CFA04 GENE1981 CFA04 GENE7879 CFA04 GENE1980 CFA04 GENE1980	39895320.00 40040864.00 40137636.00 40197256.00 40345984.00
Note of the second	GENE1717 21904030.00 HSA05 GENE7620 24581914.00 HSA05 GENE1720 26948162.00 HSA05 GENE7621 29118506.00 HSA05		2393.00 2396.00 2399.00 2405.00 2408.00	-GENE7881 -GENE12447 -GENE1982 -GENE1981 -GENE1981	CFA04 GENE1979 CFA04 GENE1979 CFA04 GENE1978 CFA04 GENE1978 CFA04 GENE1977 CF004 CENE1977	40411688.00 40584736.00 40584736.00 41146364.00
	GENE/622 31452120.00 HSH05 GENE1722 31599212.00 HSA05 GENE7623 31843240.00 HSA05 GENE12364 32105104.00 HSA05 GENE1724 32428384.00 HSA05		2414.00 2426.00 2432.00 2438.00	-GENE 1900 - -GENE 7879 - -GENE 7878 - -GENE 7877 - -GENE 1979 -	CFA04 GENE1976 CFA04 GENE1976 CFA04 GENE1975 CFA04 GENE7873 CFA04 GENE1972	41642/72.00 41774048.00 42313032.00 42394272.00 42749168.00
	GENE12365 32644544.00 HSH05 GENE7626 33490684.00 HSA05 GENE1729 35078256.00 HSA05 GENE7630 35108072.00 HSA05 GENE7631 35821428.00 HSA05		2441.00 2451.00 2461.00 2464.00 2474.00	-GENE 1978	CFR04 GENE1971 CFR04 GENE1970 CFR04 GENE7868 CFR04 GENE1969 CFR04 GENE7134	43055556.00 43197512.00 43286744.00 43429648.00 43631000.00
	GENE1731 35905412.00 HSA05 GENE7632 36010888.00 HSA05 GENE1733 36227132.00 HSA05 GENE7634 36270560.00 HSA05 GENE1734 36316476.00 HSA05	GENE1975 - GENE1972 - GENE1971 - GENE1971 - GENE1970 -	2481.00 2498.00 2506.00 2509.00 2520.00	- GENE 1975 - GENE 1972 - GENE 1971 - GENE 7868 - GENE 1970	CFA04 GENE12445 CFA04 GENE1968 CFA04 GENE1967 CFA04 GENE5825 CFA04 GENE7865	43892692.00 43923040.00 44465768.00 44465768.00 44763456.00
	GENE/635 36714764.00 HSH05 GENE7636 37152452.00 HSA05 GENE1736 37373460.00 HSA05 GENE12367 37748464.00 HSA05 GENE1738 38415296.00 HSA05	GENE 1969 - -GENE 1968 - -GENE 1967 - BAC_381-J16 -GENE 1964 -	2528.00 2535.00 2542.00 2546.00 2552.00	-GENE 1969	CFR04 GENE1965 CFR04 GENE7864 CFR04 GENE7863 CFR04 GENE1964 CFR04 GENE7862	44886/28.00 44886728.00 44886728.00 45204920.00 45204920.00
	GENE1737 38881920.00 HSR05 GENE7640 39042176.00 HSR05 GENE7641 39360620.00 HSR05 GENE1741 39427112.00 HSR05 GENE1740 40199604.00 HSR05	GENE1905 - GENE1905 - GENE19061 - GENE12442 - GENE7860 -	2566.00 2590.00 2603.00 2609.00 2615.00	-GENE1965	CFR04 GENE7861 CFR04 GENE1962 CFR04 GENE7860 CFR04 GENE1961 CFR04 GENE12443	45924480.00 46295008.00 46444244.00 46673956.00 46673956.00
Description of the second sec	GENE7643 40877784.00 HSA05 GENE1743 40954648.00 HSA05 GENE7644 41044352.00 HSA05 GENE12372 41807184.00 HSA05 GENE7646 41954792.00 HSA05	GENE12443 - -GENE7861 - -GENE7862 - - -GENE5825 - - -GENE7864 -	2618.00 2630.00 2638.00 2645.00 2648.00	- GENE 12443 - GENE 7861 - GENE 7862 - GENE 5825 - GENE 7864	CFR04 GENE12442 CFR04 GENE1960 CFR04 GENE7858 CFR04 GENE7857 CFR04 GENE1959	46998608.00 47559072.00 50069408.00 50946124.00 50946124.00
Norma	GENE7647 42758652.00 HSA05 GENE1745 42830640.00 HSA05 GENE7648 43184268.00 HSA05 GENE1748 43289776.00 HSA05 GENE12373 43539108.00 HSA05	GENE7863 - GENE7865 - GENE7134 - GENE12445 - GENE12445 - GENE1960 -	2654.00 2662.00 2671.00 2681.00 2702.00	-GENE7863 -GENE7865 -GENE7134 -GENE12445 -GENE1960	CFA04 GENE7856 CFA04 GENE12441 CFA04 GENE1955 CFA04 GENE12438 CFA04 GENE7852	52289968.00 52586900.00 53325648.00 53552080.00 53619504.00
	GENE7650 43580288.00 HSA05 GENE7651 44356280.00 HSA05 GENE1749 44663660.00 HSA05 GENE1750 44779664.00 HSA05 GENE12375 45311828.00 HSA05	BAC_375-123 	2728.00 2746.00 2770.00 2791.00 2814.00	BAC_375-I23 -GENE7858 -GENE7857 -GENE1959 BAC_375-M20	CFA04 GENE1954 CFA04 GENE7851 CFA04 GENE1952 CFA04 GENE12437 CFA04 GENE12436	53619504.00 53787544.00 54006372.00 54447440.00 54447440.00
Norman <	GENE7653 50133180.00 HSA05 GENE1753 50698256.00 HSA05 GENE7654 52112840.00 HSA05 GENE1754 52256292.00 HSA05 GENE7655 52384324.00 HSA05	-GENE12441 - -GENE7856 - -GENE1955 - -GENE7852 - 	2817.00 2819.00 2822.00 2825.00 2825.00	- GENE 12441 - GENE 7856 - GENE 1955 - GENE 7852 - GENE 7851	CFA04 GENE1950 CFA04 GENE1949 CFA04 GENE7847 CFA04 GENE7846 CFA04 GENE1947	54447440.00 54879092.00 55673184.00 55825540.00 55933508.00
	GENE1755 52426688.00 HSA05 GENE7656 52994884.00 HSA05 GENE1756 55242888.00 HSA05 GENE1757 55748956.00 HSA05 GENE1848 112412912.00 HSA05		2834.00 2842.00 2845.00 2854.00 2854.00 2860.00	- GENE 1954 - GENE 12438 - GENE 1952 - GENE 12437 - GENE 12437 - GENE 1949	CFA04 GENE1945 CFA04 GENE1944 CFA04 GENE7842 CFA04 GENE1943 CFA04 GENE1942	56189780.00 56303360.00 56500112.00 58013352.00 58091052.00
	GENE12408 112515928.00 HSA05 GENE7821 147676256.00 HSA05 GENE7822 147833024.00 HSA05 GENE7823 148231904.00 HSA05 GENE1923 148273744.00 HSA05	-GENE12436 - -GENE1950 - -GENE7847 - -GENE7846 - -GENE1945 -	2863.00 2865.00 2868.00 2874.00 2877.00	- GENE 12436 - - GENE 1950 - - GENE 7847 - - GENE 7846 - - GENE 1945 -	CFA04 GENE7841 CFA04 GENE7840 CFA04 GENE7839 CFA04 GENE1940 CFA04 GENE7838	58091052.00 58164188.00 58441408.00 58849112.00 59121344.00
	GENE12433 148411952.00 HSA05 GENE1926 148758192.00 HSA05 GENE7826 149255408.00 HSA05 GENE1928 149304160.00 HSA05 GENE7828 149542736.00 HSA05	-GENE7842 - -GENE1944 - -GENE1947 - -GENE1943 - -GENE1942 -	2880.00 2883.00 2889.00 2912.00 2918.00	-GENE/892 -GENE1944 -GENE1947 -GENE1943 -GENE1942	CFA04 GENE1939 CFA04 GENE7837 CFA04 GENE1938 CFA04 GENE7836 CFA04 GENE1936	59924648.00 60178032.00 60680628.00 60680628.00 60955520.00
	GENE1930 149588112.00 HSA05 GENE7830 149915856.00 HSA05 GENE1932 150065552.00 HSA05 GENE7831 150106224.00 HSA05 GENE1933 150203456.00 HSA05	GENE7841 - GENE7839 - GENE7840 - GENE7838 - GENE1940 -	2921.00 2927.00 2929.00 2932.00 2935.00	-GENE7839 -GENE7840 -GENE7838 -GENE1940	CFH04 GENE7835 CFA04 GENE7834 CFA04 GENE1933 CFA04 GENE1932 CFA04 GENE7831	60955520.00 61169516.00 61474492.00 61614896.00 61614896.00
	GENE7834 150692096.00 HSA05 GENE1936 150871984.00 HSA05 GENE7835 150950288.00 HSA05 GENE7836 151211872.00 HSA05 GENE1938 151294528.00 HSA05	GENE7837 - GENE1939 - GENE1938 - GENE7836 - GENE1936 - GENE1936 -	2950.00 2956.00 2975.00 2985.00 2999.00	-GENE /03/ -GENE 1939 -GENE 1938 -GENE 7836 -GENE 1936	CFR04 GENE7830 CFR04 GENE1930 CFR04 GENE7828 CFR04 GENE7826 CFR04 GENE1928	61757320.00 62075388.00 62155996.00 62336340.00 62336340.00
	GENE7837 151800128.00 HSA05 GENE1939 152595696.00 HSA05 GENE7838 153202016.00 HSA05 GENE1940 153433632.00 HSA05 GENE7839 153826624.00 HSA05	GENE7835 - GENE7834 - GENE1933 - GENE1932 - GENE7831 -	3002.00 3006.00 3009.00 3020.00 3024.00	- GENE7835 - GENE7834 - GENE1933 - GENE1932 - GENE7831	CFA04 GENE1926 CFA04 GENE12433 CFA04 GENE7823 CFA04 GENE1923 CFA04 GENE7821	62807920.00 63125360.00 63125360.00 63673308.00 63673308.00
	GENE7840 154209984.00 HSA05 GENE1942 154283296.00 HSA05 GENE7841 154299264.00 HSA05 GENE1943 154374976.00 HSA05 GENE7842 156054432.00 HSA05	GENE7826 - GENE7828 - GENE7830 - GENE1930 - GENE1928 -	3039.00 3045.00 3049.00 3055.00 3062.00	-GENE7628 -GENE7828 -GENE7830 -GENE1930 -GENE1938	CFR04 GENE7822 CFR04 GENE1757 CFR04 GENE1756 CFR04 GENE7656 CFR04 GENE7655	63673308.00 63673308.00 64179372.00 64836364.00 65327092.00
	GENE1944 156328288.00 HSA05 GENE1945 156514352.00 HSA05 GENE1947 156880176.00 HSA05 GENE7846 156978240.00 HSA05 GENE7847 157213648.00 HSA05	GENE1926 - GENE12433 - GENE12433 - GENE7823 - GENE1923 - GENE1923 - GENE7821 -	3065.00 3069.00 3075.00 3082.00 3091.00	-GENE 1926 -GENE 12433 -GENE 7823 -GENE 1923 -GENE 7821 -GENE 7821	CFA04 GENE1755 CFA04 GENE1754 CFA04 GENE7654 CFA04 GENE1753 CFA04 GENE7653	65327092.00 65555548.00 65555548.00 66676032.00 67292352.00
	GENE1949 158184080.00 HSA05 GENE1950 158565472.00 HSA05 GENE12436 158678096.00 HSA05 GENE12437 158723328.00 HSA05 GENE1952 159184784.00 HSA05	GENE7822 - GENE1757 - GENE1756 - GENE7656 - GENE7656 - BAC_376-M3	3095.00 3098.00 3108.00 3119.00 3126.00	-GENE7822 -GENE1757 -GENE1756 -GENE7656 BAC_376-H3	CFA04 GENE12375 CFA04 GENE7651 CFA04 GENE1750 CFA04 GENE7650 CFA04 GENE12373	68273224.00 69098688.00 69448840.00 69665040.00 69665040.00
	GENE7851 159418352.00 HSA05 GENE7852 159646256.00 HSA05 GENE1954 159659344.00 HSA05 GENE12438 159762560.00 HSA05 GENE1955 160339456.00 HSA05	GENE7655 - GENE1755 - GENE1754 - GENE7654 - GENE7654 - GENE1753 -	3132.00 3139.00 3146.00 3149.00 3164.00	-GENE7655 -GENE1755 -GENE1754 -GENE7654 -GENE1753	CFA04 GENE1749 CFA04 GENE1748 CFA04 GENE7648 CFA04 GENE7647 CFA04 GENE7646	69665040.00 69845176.00 69929464.00 70211952.00 70848168.00
	GENE12441 160866736.00 HSA05 GENE7856 161304880.00 HSA05 GENE7857 162867792.00 HSA05 GENE1959 162890304.00 HSA05 GENE7858 163894496.00 HSA05	GENE12375 - GENE7653 - BAC_373-G11 GENE7651 - EST405	3182.00 3189.00 3195.00 3202.00 3216.00	-GENE12375 - -GENE7653 - BAC_373-G11 -GENE7651 - EST4G5	CFA04 GENE1745 CFA04 GENE12372 CFA04 GENE7644 CFA04 GENE1743 CFA04 GENE7643	70929992.00 71026464.00 71582816.00 71582816.00 71726792.00
DBC 25:10 1922792.4 * BRAND BC 25:10 SS27.4 * BRANDD BC 25:10 SS27.4 * BRANDD B	GENE1960 166783024.00 HSA05 GENE12442 167350304.00 HSA05 GENE12443 167610624.00 HSA05 GENE7860 167876832.00 HSA05 GENE1962 167964864.00 HSA05	-GENE1750 - -GENE7650 - -GENE12373 - -GENE1749 - -GENE1748	3223.00 3230.00 3234.00 3242.00 3245.00	-GENE1750 -GENE7650 -GENE12373 -GENE1749 -GENE1748	CFA04 GENE1741 CFA04 GENE7641 CFA04 GENE1740 CFA04 GENE17640 CFA04 GENE1738	72809160.00 72883024.00 73015008.00 73273056.00 73682168.00
CHECTAGE 19959776.000 CHECTAGE 9395.000 CHECTAGE	GENE1961 168267024.00 HSA05 GENE7861 168430640.00 HSA05 GENE7862 169109776.00 HSA05 GENE7863 169457696.00 HSA05 GENE1965 169515136.00 HSA05		3257.00 3265.00 3279.00 3286.00 3289.00	-GENE7648 -GENE7647 -GENE7646 -GENE12372 -GENE1745	CFA04 GENE12367 CFA04 GENE1737 CFA04 GENE1736 CFA04 GENE7636 CFA04 GENE7635	74078912.00 74078912.00 74560744.00 74729936.00 75179312.00
CHE LINK 17950608.0 HIGHS CHE 1791 C 2555.00 CHE 1791 C 2555.00 CHE 1791 C CHE 1791 C 2555.00 CHE 1791 C CHE 1791 C 2555.00 CHE 1791 C	GENE7864 169659776.00 HSA05 GENE7865 169741184.00 HSA05 GENE1964 169994640.00 HSA05 GENE1967 170190192.00 HSA05 GENE1968 170799216.00 HSA05	GENE1743 - GENE7643 - GENE7644 - GENE1743 - GENE1743 - GENE1744 -	3296.00 3299.00 3313.00 3347.00 3351.00	-GENE7643 -GENE7644 -GENE1743 -GENE1741 -GENE1740	CFA04 GENE1734 CFA04 GENE7634 CFA04 GENE1733 CFA04 GENE7632 CFA04 GENE7632	75422624.00 75422624.00 75422624.00 75715992.00 75893536.00
EXERTING 12173472.0015000 0FR04 CHE12305 7302530.00 CHE12307 1255922.001500 0FR04 CHE12307 7222530.00 CHE12307 1255922.001500 0FR04 CHE12307 7222530.00 CHE12307 1255922.001500 0FR04 CHE12307 7222530.00 CHE12307 1255922.001500 0FR04 CHE12307 7307302.00 CHE12307 1255020.00 0FR04 CHE12307 7307302.00 CHE1307 1255020.00 0FR04 CHE12307 7307302.00 CHE1307 1255020.00 0FR04 CHE1230 730730.00 CHE1307 1255040.00 0FR04 CHE1230 CHE1301 CHE1307 1255040.00 0FR04 CHE1230 CHE1301 CHE1307 1255040.00 0FR04 CHE1301 CHE1301 CHE13017 0FR04 CHE1303	GENE12445 170856688.00 HSR05 GENE12445 170856688.00 HSR05 GENE1969 171365024.00 HSR05 GENE7868 171514368.00 HSR05 GENE1970 171617376.00 HSR05 GENE1971 171724040 000 HSR05		3355.00 3358.00 3366.00 3370.00	-GENE7641 -GENE7640 -GENE12367 -GENE1738 -GENE1738	CFA04 GENE7631 CFA04 GENE1731 CFA04 GENE7630 CFA04 GENE1729 CFA04 GENE7626 CFA04 GENE7626	75893536.00 76449232.00 76449232.00 77416832.00
Distriction 1/321/299-00 Distriction	GENE 1971 171784848.00 HSA05 GENE 1972 172175472.00 HSA05 GENE 7873 172639920.00 HSA05 GENE 1975 172722944.00 HSA05 GENE 1976 173362960.00 HSA05	-GENE1736 - -GENE1737 - -GENE1734 - -GENE7636 - -GENE7635 -	3377.00 3377.00 3402.00 3434.00 3448.00	-GENE1737 -GENE1734 -GENE7636 -GENE7635	CFR04 GENE12365 CFR04 GENE1724 CFR04 GENE12364 CFR04 GENE7623 CFR04 GENE7622	78095360.00 78292616.00 78578392.00 78760560.00 79000120.00
HERE 1969 172591922.00 INSING GENE 1950 17550443.00 INSING GENE 1950 17550443.00 INSING GENE 1951 17550443.00 INSING GENE 1951 17504544.00 INSING GENE	GENE17875 173512096.00 HSA05 GENE1977 174137056.00 HSA05 GENE1978 174919184.00 HSA05 GENE7877 175091456.00 HSA05 GENE1979 175217584.00 HSA05	-GENE7634 - -GENE7631 - -GENE1731 - -GENE7632 - -GENE7626 -	3455.00 3458.00 3461.00 3465.00 3471.00	-GENE7631 -GENE7631 -GENE7632 -GENE7626	CFR04 GENE1722 CFR04 GENE7621 CFR04 GENE1720 CFR04 GENE7620 CFR04 GENE7618	/9000120.00 80865008.00 82393848.00 84230760.00 86205504.00
04.04_0701 175709221 004505 004505 004505 05.04_0701 175709221 004505 004505 004505 004505 05.04_0701 175709221 004505 004505 004505 004505 004505 05.04_0701 175709221 0045050 004505 0045050	GENE 2070 175290592.00 HSA05 GENE 1980 175755440.00 HSA05 GENE 2879 175800336.00 HSA05 GENE 1981 175914544.00 HSA05 GENE 12447 176060720.00 HSA05		3478.00 3478.00 3481.00 3492.00 3499.00	-GENE 1729 -GENE 1733 -GENE 1724 -GENE 12364 -GENE 12364	CFR04 GENE1717 CFR04 GENE1716 CFR04 GENE7616 CFR04 GENE1715 CFR04 GENE7615	0042/992.00 87422832.00 88081208.00 89374464.00 89578432.00
GENE 1/20 3614.00 GENE 1/20 GENE 7620 3614.00 -GENE 7620 GENE 7618 3651.00 -GENE 7618 GENE 1717 -3659.00 -GENE 1717 GENE 1717 -3659.00 -GENE 1716 GENE 1716 -3681.00 -GENE 1716 GENE 1717 -3687.00 -GENE 1716 GENE 1718 -3697.00 -GENE 1716 GENE 1715 -3721.00 -GENE 1715 GENE 1715 -3731.00 -GENE 1715 BAC_331-P3 3731.00 -GENE 1714 GENE 1714 -3734.00 -GENE 1714 GENE 1713 -3744.00 -GENE 1713 GENE 1712 -3807.00 -GENE 1713 GENE 1714 -3744.00 -GENE 1713 GENE 1712 -3837.00 -GENE 1712	GENE7883 176287024.00 HSA05 GENE7883 176709232.00 HSA05 GENE7884 176864448.00 HSA05 GENE1982 176866016.00 HSA05 GENE7885 177093744.00 HSA05	-GENE12365 - -GENE7623 - -GENE7622 - -GENE1722 - -GENE1722 - -GENE7621 -	3509.00 3515.00 3522.00 3536.00	-GENE7623 -GENE7622 -GENE1722 -GENE7621 -GENE1720	CFA04 GENE1714 CFA04 GENE7614 CFA04 GENE1713 CFA04 GENE7613	89942096.00 89942096.00 90103200.00 91036040.00
GENE7615 - 3721.00 - GENE7615 GENE1715 - 3728.00 - GENE7615 GENE1715 - 3731.00 BAC_381-P3 GENE1714 - 3734.00 - GENE7614 - 3744.00 - GENE1713 - 3744.00 - GENE7613 - 3809.00 - GENE7613 - 3837.00 GENE1712			3614.00 3651.00 3659.00 3681.00 3687.00	-GENE7620 -GENE7618 -GENE1717 -GENE1716 -GENE7616		
AGENE/7014 3741.00 -GENE/7014 AGENE/7014 -GENE/7014 -GENE/7014 AGENE/7013 -GENE/7013 -GENE/7013 AGENE/712 -GENE/7013 -GENE/7013			3721.00 3728.00 3731.00 3734.00 3741.00	-GENE7615 -GENE1715 BAC_381-P3 -GENE1714 -GENE7614		
			3741.00 3744.00 3809.00 3837.00	-GENE 1713 -GENE 7613 GENE 1712		

GENE3615 GENE3616 GENE3617 GENE3617 GENE3618 GENE3618 GENE3619 GENE3619 GENE3619 GENE3621 GENE3621 GENE3623 GENE3623 GENE3623 GENE3625 GENE3626 GENE3626 GENE3626 GENE3628 GENE3628 GENE3629 GENE3629	100879536.00 HSA11 101365368.00 HSA11 101467192.00 HSA11 101732400.00 HSA11 101732400.00 HSA11 101786264.00 HSA11 10138968.00 HSA11 102033088.00 HSA11 102100112.00 HSA11 102122152.00 HSA11 102246880.00 HSA11 102246880.00 HSA11 102562368.00 HSA11 102689240.00 HSA11 10355120.00 HSA11 10355120.00 HSA11 10346416.00 HSA11 104399648.00 HSA11 104314824.00 HSA11 105457288.00 HSA11 105457288.00 HSA11 105366336.00 HSA11 106386336.00 HSA11	GENE3698 - BRC_382-K11 GENE3700 - GENE3701 - GENE3702 - GENE9591 - GENE9590 - GENE9599 - GENE9589 - GENE9589 - GENE9587 - BRC_372-C9 GENE9586 - GENE9585 - GENE9585 - GENE9585 - GENE9583 - GENE3695 - GENE3695 - GENE3695 - GENE3695 - GENE3695 - GENE3691 -	0.00 28.00 76.00 118.00 120.00 123.00 143.00 168.00 193.00 210.00 238.00 302.00 309.00 327.00 337.00 349.00 369.00 394.00 412.00 421.00 426.00 436.00 453.00	- GENE3698 BRC_382-K11 - GENE3700 - GENE3701 - GENE3696 - GENE3696 - GENE3702 - GENE9591 - GENE9592 - GENE9590 - GENE9590 - GENE9590 - GENE9590 - GENE9589 - GENE9589 - GENE9589 - GENE9580 - GENE9585 - GENE9585 - GENE9585 - GENE3682 - GENE3682 - GENE3682 - GENE3681 - GENE9581 - GENE3695 - GENE3691	CFA05 GENE9591 CFA05 GENE9592 CFA05 GENE3702 CFA05 GENE3701 CFA05 GENE3701 CFA05 GENE9590 CFA05 GENE9590 CFA05 GENE9590 CFA05 GENE9589 CFA05 GENE9589 CFA05 GENE9589 CFA05 GENE9587 CFA05 GENE9586 CFA05 GENE9586 CFA05 GENE9585 CFA05 GENE9585 CFA05 GENE9583 CFA05 GENE9583 CFA05 GENE3693 CFA05 GENE3691	3719915.00 3719915.00 3749094.00 3780913.00 3939176.00 4025704.00 4261764.00 4300786.00 5693038.00 7036190.00 7480518.00 7570693.00 7617354.00 7706051.00 7860612.00 7945817.00 8212801.00 8602030.00 8722915.00 8768169.00 8935636.00 9132617.00
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GENE 13623 GENE 3653 GENE 3663 GENE 3663 GENE 3664 GENE 3664 GENE 3664 GENE 13625 GENE 13626 GENE 3658 GENE 3658 GENE 3669 GENE 3665 GENE 3665 GENE 3666 GENE 3666 GENE 3666 GENE 3666 GENE 3666 GENE 3666 GENE 3666	118162784.00 HSA11 118227944.00 HSA11 118227944.00 HSA11 11836968.00 HSA11 118429552.00 HSA11 118523688.00 HSA11 118582704.00 HSA11 118686016.00 HSA11 118831728.00 HSA11 119082880.00 HSA11 119576488.00 HSA11 119576488.00 HSA11 120312544.00 HSA11 120468080.00 HSA11 120570080.00 HSA11 120690792.00 HSA11 120966208.00 HSA11 120966208.00 HSA11 121020568.00 HSA11 121497280.00 HSA11 12258392.00 HSA11 12258392.00 HSA11 122341456.00 HSA11	GENE13625 - GENE9554 - GENE3664 - GENE3664 - GENE9551 - GENE13623 - GENE3663 - GENE3663 - GENE9553 - GENE13196 - GENE9550 - GENE9550 - GENE9550 - GENE9548 - GENE9548 - GENE3658 - GENE9548 - GENE3655 - GENE9545 - GENE3653 - GENE3654 - GENE3654 - GENE3655	1178.00 1183.00 1189.00 1198.00 1203.00 1209.00 1218.00 1230.00 1258.00 1282.00 1291.00 1302.00 1307.00 1310.00 1313.00 1319.00 1321.00 1343.00 1358.00 1361.00 1373.00 1409.00	-GENE13625	CFA05 GENE9553 CFA05 GENE13623 CFA05 GENE3661 CFA05 GENE9551 CFA05 GENE9551 CFA05 GENE9551 CFA05 GENE9550 CFA05 GENE9550 CFA05 GENE9549 CFA05 GENE9549 CFA05 GENE9548 CFA05 GENE9543 CFA05 GENE9543 CFA05 GENE9542 CFA05 GENE3651 CFA05 GENE3650 CFA05 GENE3650 CFA05 GENE3649 CFA05 GENE3649 CFA05 GENE9539	17813484.00 18016596.00 18016596.00 18153464.00 18229784.00 18327400.00 18392064.00 18465716.00 18465716.00 18465716.00 18784400.00 19313516.00 19406052.00 19690602.00 19690602.00 19670232.00 21670232.00 21888720.00 21924720.00 22049298.00 2232286.00
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GENE9579 GENE3683 GENE3686 GENE3687 GENE9580 GENE3691 GENE3691 GENE3692 GENE3692 GENE3693 GENE3693 GENE3694 GENE3694 GENE3694 GENE3695 GENE3695 GENE3696 GENE9586 GENE3698 GENE3698 GENE3699 GENE3699 GENE3699 GENE3700 GENE3701 GENE3701 GENE3591	126508488.00 HSA11 126952624.00 HSA11 12744832.00 HSA11 127651792.00 HSA11 127867728.00 HSA11 128088432.00 HSA11 128088432.00 HSA11 128318752.00 HSA11 128395232.00 HSA11 128395232.00 HSA11 129261680.00 HSA11 12936920.00 HSA11 12936920.00 HSA11 129547624.00 HSA11 129647184.00 HSA11 130285840.00 HSA11 131820624.00 HSA11 133257084.00 HSA11 133257208.00 HSA11 133668560.00 HSA11 133725712.00 HSA11		1655.00 1671.00 1674.00 1680.00 1683.00 1707.00 1761.00 1781.00 1813.00 1839.00 1852.00 1852.00 1856.00 1858.00 1868.00 1883.00 1883.00 1886.00 1903.00 1927.00 1934.00 1963.00 1990.00 2004.00 2015.00	-GENE9526 -GENE13617 -GENE3636 BAC_381-F19 BAC_381-C24 -GENE3637 -GENE3637 -GENE13616 -GENE13616 -GENE13611 -GENE3634 -GENE3633 -GENE3634 -GENE3631 -GENE3632 -GENE3629 -GENE3629 -GENE3629 -GENE3620 -GENE3628 -GENE3629 -GENE3620 -GENE3620 -GENE3623 -GENE3626 -GENE3627 -GENE3628 -GENE3629 -GENE3620 -GENE3623 -GENE3624 -GENE3625 -GENE3623 -GENE3623 -GENE3623	CFA05 GENE13614 CFA05 GENE3633 CFA05 GENE3631 CFA05 GENE3631 CFA05 GENE3630 CFA05 GENE3630 CFA05 GENE3630 CFA05 GENE3620 CFA05 GENE3629 CFA05 GENE3629 CFA05 GENE3628 CFA05 GENE3625 CFA05 GENE3623 CFA05 GENE3623 CFA05 GENE3620 CFA05 GENE3621 CFA05 GENE3618 CFA05 GENE3618 CFA05 GENE3618 CFA05 GENE3619 CFA05 GENE3619	27272818.00 27272818.00 27612358.00 27709670.00 27779670.00 27833578.00 27976020.00 28359362.00 29058468.00 29193262.00 30139116.00 30139116.00 30934784.00 31048784.00 31571614.00 31571614.00 31896008.00 31896008.00 31896008.00 31896008.00 31896008.00 32097572.00 32097572.00 32097572.00
GENE9592 GENE3702 GENE5724 GENE5724 GENE5852 GENE2917 GENE3048 GENE3055 GENE13340 GENE10666 GENE13341 GENE4783 GENE10678 GENE10671 GENE4785 GENE10674 GENE10675 GENE10675 GENE12760 GENE13346	133786032.00 HSA11 135720224.00 HSA11 21664374.00 HSAX 117357728.00 HSAX 34907040.00 HSA09 120900200.00 HSA09 123287184.00 HSA09 123287184.00 HSA17 15541383.00 HSA17 15784027.00 HSA17 16084073.00 HSA17 16724857.00 HSA17 16724857.00 HSA17 16724857.00 HSA17 17231202.00 HSA17 17266784.00 HSA17 17429554.00 HSA17 17609406.00 HSA17 17882464.00 HSA17 17971510.00 HSA17 18121088.00 HSA17 18210978.00 HSA17	GENE9512 - GENE3620 - GENE3618 - GENE3615 - GENE9506 - BAC_382-I8 GENE3615 - GENE3615 - GENE3617 - GENE9510 - GENE9510 - GENE9509 - GENE3619 - GENE10666 - GENE10666 - GENE10344 - GENE10668 - GENE10670 - GENE4783 -	2030.00 2044.00 2052.00 2055.00 2066.00 2070.00 2074.00 2125.00 2138.00 2151.00 2155.00 2188.00 2288.00 2314.00 2333.00 2342.00 2357.00 2373.00 2390.00	-GENE9512 -GENE3620 -GENE3618 -GENE3618 -GENE3618 -GENE3605 -GENE3605 -GENE9506 BAC_382-18 -GENE3616 -GENE3616 -GENE3617 -GENE3617 -GENE9509 -GENE3619 -GENE3619 -GENE3619 -GENE10666 -GENE13340 -GENE13341 -GENE10668 -GENE10668 -GENE10670 -GENE10670	CFA05 GENE3617 CFA05 GENE3616 CFA05 GENE3615 CFA05 GENE3615 CFA05 GENE3048 CFA05 GENE3048 CFA05 GENE3048 CFA05 GENE13340 CFA05 GENE13341 CFA05 GENE10670 CFA05 GENE13341 CFA05 GENE13342 CFA05 GENE13342 CFA05 GENE13342 CFA05 GENE13342 CFA05 GENE13342 CFA05 GENE13342 CFA05 GENE13349 CFA05 GENE13349 CFA05 GENE106681 CFA05 GENE10679 CFA05 GENE13346 CFA05 GENE13346 CFA05 GENE13346 CFA05 GENE12760 CFA05 GENE12760 CFA05 GENE4791	32308244.00 32493876.00 32638318.00 32954132.00 41857344.00 41857344.00 41857344.00 42194928.00 42306052.00 42480464.00 42582412.00 42696936.00 42696936.00 4384120.00 43454368.00 43513904.00 43838188.00 44102900.00 44477336.00 44502060.00
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GENE11 GENE5920 GENE13 GENE5922 GENE14 GENE5923 GENE1801 GENE5924 GENE5925 GENE17 GENE5926 GENE5928 GENE5928 GENE5929 GENE5929 GENE5931 GENE23 GENE23 GENE11805 GENE24 GENE5933 GENE25	2393490.00 HSA01 2610942.00 HSA01 3193274.00 HSA01 3327937.00 HSA01 3407090.00 HSA01 3480615.00 HSA01 3536039.00 HSA01 4152066.00 HSA01 4499069.00 HSA01 4522194.00 HSA01 6023262.00 HSA01 6219038.00 HSA01 6356119.00 HSA01 7432945.00 HSA01 7535654.00 HSA01 7740501.00 HSA01 7740501.00 HSA01 7781433.00 HSA01 8121946.00 HSA01		2681.00 2704.00 2712.00 2720.00 2727.00 2738.00 2750.00 2757.00 2768.00 2779.00 2782.00 2790.00 2794.00 2801.00 2801.00 2818.00 2833.00 2846.00 2850.00 2860.00 2864.00	-GENE5852 -GENE209 -GENE210 -GENE6118 -GENE6117 -GENE3787 -GENE6116 -GENE208 -GENE11877 -GENE5288 -GENE208 -GENE209 -GENE201 -GENE203 -GENE6114 -GENE6111 -GENE6111 -GENE6110 -GENE6110 -GENE6109 -GENE200	CFA05 GENE6114 CFA05 GENE205 CFA05 GENE204 CFA05 GENE204 CFA05 GENE203 CFA05 GENE203 CFA05 GENE203 CFA05 GENE203 CFA05 GENE202 CFA05 GENE202 CFA05 GENE6110 CFA05 GENE6109 CFA05 GENE6108 CFA05 GENE6108 CFA05 GENE6107 CFA05 GENE6106 CFA05 GENE6106 CFA05 GENE6105 CFA05 GENE198 CFA05 GENE196 CFA05 GENE195 CFA05 GENE192 CFA05 GENE192 CFA05 GENE6099 CFA05 GENE6099 CFA05 GENE190	50635204.00 50697128.00 50876800.00 51171552.00 51372772.00 51548004.00 52929080.00 53053124.00 53053124.00 53226688.00 53849512.00 54047480.00 54131472.00 54231328.00 54553336.00 55619112.00 55681112.00 55832512.00 56124624.00 57539728.00 57904812.00
GENE5934 GENE26 GENE27 GENE5936 GENE28 GENE11806 GENE5937 GENE30 GENE5939 GENE31 GENE1807 GENE185 GENE6094 GENE186 GENE6096 GENE188 GENE6097 GENE189 GENE190 GENE190 GENE192 GENE192 GENE195 GENE1975	8728075.00 HSA01 8807074.00 HSA01 9032961.00 HSA01 9132961.00 HSA01 9124424.00 HSA01 9351870.00 HSA01 9351870.00 HSA01 9424113.00 HSA01 9484924.00 HSA01 9484924.00 HSA01 9712019.00 HSA01 9751869.00 HSA01 9751869.00 HSA01 52740188.00 HSA01 5286288.00 HSA01 53435360.00 HSA01 5375612.00 HSA01 53775012.00 HSA01 53972100.00 HSA01 54886464.00 HSA01 54886464.00 HSA01 54488464.00 HSA01 5659816.00 HSA01	GENE6107 - GENE6108 - GENE199 - GENE198 - GENE198 - GENE8096 - GENE106 - GENE105 - GENE195 - GENE195 - GENE192 - GENE199 - GENE195 - GENE195 - GENE199 - GENE195 - GENE199 - GENE197 - GENE199 - GENE198 - GENE197 - GENE199 - GENE198 - GENE199 - GENE198 - GENE199 - GENE199 - GENE199 - GENE199 - GENE198 - GENE199 - GENE199 - GENE199 - GENE198 - GENE199 - GEN	2901.00 2904.00 2919.00 2931.00 2952.00 2956.00 2974.00 2978.00 2986.00 2993.00 3025.00 3025.00 3032.00 3036.00 3040.00 3045.00 3045.00 3045.00 3065.00 3065.00 3069.00 3083.00 3083.00	-GENE6107 -GENE6108 -GENE199 -GENE198 -GENE606 -GENE6106 -GENE1875 -GENE195 -GENE195 -GENE192 -GENE190 -GENE190 -GENE189 -GENE189 -GENE6097 -GENE6097 -GENE6094 -GENE185 -GENE1793 -GENE5911 -GENE5	CFA05 GENE 189 CFA05 GENE 6097 CFA05 GENE 188 CFA05 GENE 185 CFA05 GENE 5915 CFA05 GENE 5916 CFA05 GENE 5916 CFA05 GENE 5916 CFA05 GENE 5911 CFA05 GENE 3 CFA05 GENE 3 CFA05 GENE 3 CFA05 GENE 3 CFA05 GENE 11793 CFA05 GENE 11797 CFA05 GENE 5918 CFA05 GENE 10 CFA05 GENE 11799 CFA05 GENE 11799	58169472.00 58169472.00 58315708.00 58421624.00 58863636.00 58964992.00 59190456.00 59190456.00 59430564.00 59430564.00 59492160.00 59670112.00 59670112.00 59670112.00 59853184.00 59853184.00 60105520.00 60105520.00 60184028.00 60268956.00 60338352.00 60427064.00
GENE196 GENE6105 GENE6107 GENE6107 GENE6108 GENE6108 GENE6108 GENE6109 GENE6109 GENE6110 GENE6110 GENE6111 GENE203 GENE6112 GENE6114 GENE205 GENE6114 GENE206 GENE6116 GENE6117 GENE6117 GENE209	56639728.00 HSA01 56781372.00 HSA01 58340828.00 HSA01 583503580.00 HSA01 58616192.00 HSA01 58735684.00 HSA01 59473680.00 HSA01 59698400.00 HSA01 59698400.00 HSA01 60577648.00 HSA01 61238220.00 HSA01 61530204.00 HSA01 61710412.00 HSA01 62285576.00 HSA01 62379556.00 HSA01 62379556.00 HSA01 62439520.00 HSA01 62664488.00 HSA01 6368524.00 HSA01 63458340.00 HSA01 6440632.00 HSA01	GENE5910 -GENE5 -GENE5916 -GENE5915 -GENE5915 -GENE5915 -GENE11797 -GENE11797 -GENE5918 -GENE9 -GENE9 -GENE10 -GENE11 -GENE5920 -GENE11799 -GENE11799 -GENE13 -GENE5922 -GENE11801 -GENE5923 -GENE5923 -GENE5924 -GENE5924 -GENE17 -	3104.00 3125.00 3135.00 3140.00 3149.00 3159.00 3159.00 3164.00 3173.00 3182.00 3182.00 3186.00 3195.00 3204.00 3212.00 3225.00 3245.00 3249.00 3263.00 3267.00 3280.00 3284.00 3292.00	-GENE5910 -GENE5 -GENE3 -GENE5916 -GENE5916 -GENE5915 -GENE5915 -GENE11796 -GENE11797 -GENE5918 -GENE5918 -GENE5918 -GENE10 -GENE11 -GENE5920 -GENE11 -GENE5920 -GENE13 -GENE5922 -GENE14 -GENE5923 -GENE16 -GENE5924 -GENE17	CFA05 GENE5920 CFA05 GENE13 CFA05 GENE5922 CFA05 GENE5922 CFA05 GENE5922 CFA05 GENE14 CFA05 GENE5923 CFA05 GENE5924 CFA05 GENE5924 CFA05 GENE5925 CFA05 GENE5925 CFA05 GENE5926 CFA05 GENE5928 CFA05 GENE5931 CFA05 GENE23 CFA05 GENE5933 CFA05 GENE5933 CFA05 GENE5933 CFA05 GENE5933 CFA05 GENE5934	60659632.00 61127728.00 61222336.00 61272552.00 61328048.00 61392544.00 61615016.00 61860328.00 62120400.00 62120400.00 62937024.00 63352616.00 63352616.00 63468392.00 64465272.00 64465272.00 64562328.00 64662328.00 64662328.00 64662328.00 64931560.00 65374400.00 65428512.00
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GENE4662 GENE10551 GENE4667 GENE4666 GENE4666 GENE4670 GENE4672 GENE4673 GENE4673 GENE10562 GENE10563 GENE10564 GENE10565 GENE10566 GENE10566 GENE10568 GENE10568 GENE10568 GENE10568	67801464.00 HSA16 67931952.00 HSA16 68065744.00 HSA16 68367696.00 HSA16 68434944.00 HSA16 6849760.00 HSA16 69144840.00 HSA16 69733520.00 HSA16 69976728.00 HSA16 7079688.00 HSA16 70181440.00 HSA16 7028112.00 HSA16 70381672.00 HSA16 70381672.00 HSA16 70637168.00 HSA16 70637168.00 HSA16 70836336.00 HSA16 70988904.00 HSA16 7184624.00 HSA16 71548448.00 HSA16 71677800.00 HSA16	-GENE4728 - -GENE4726 - -GENE10611 - -GENE10612 - -GENE4727 - -GENE4725 - -GENE10608 - -GENE10508 - -GENE10508 - -GENE10598 - BAC_374-A3 -GENE10590 - -GENE10590 - -GENE10590 - -GENE10590 -	3525.00 3536.00 3552.00 3552.00 3577.00 3593.00 3613.00 3638.00 3663.00 3680.00 3691.00 3709.00 3715.00 3715.00 3724.00 3730.00 3762.00 3812.00 3812.00 3827.00 3837.00 3837.00	-GENE4728 -GENE4726 -GENE10611 -GENE10612 -GENE4727 -GENE4725 -GENE4723 -GENE13315 -GENE12744 -GENE12744 -GENE13313 -GENE10604 -GENE13312 -GENE4717 -GENE4714 -GENE4714 -GENE4713 -GENE4713 -GENE4712 -GENE4712 -GENE4713 -GENE4712 -GENE4712 -GENE4712 -GENE4712 -GENE4713 -GENE4712 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE472 -GENE4	CFA05 GENE13312 CFA05 GENE13310 CFA05 GENE13310 CFA05 GENE13310 CFA05 GENE13310 CFA05 GENE10599 CFA05 GENE10598 CFA05 GENE4714 CFA05 GENE4713 CFA05 GENE4712 CFA05 GENE4709 CFA05 GENE10593 CFA05 GENE10590 CFA05 GENE10590 CFA05 GENE10589 CFA05 GENE10589 CFA05 GENE10588 CFA05 GENE10588 CFA05 GENE10586 CFA05 GENE10586	68795288.00 68873776.00 69830552.00 70030336.00 70087760.00 70410088.00 70551136.00 70551136.00 70756120.00 71048728.00 71048728.00 71198880.00 71315520.00 71315520.00 71315520.00 71449912.00 71615432.00 71615432.00 71615432.00 72896816.00 73084208.00 73356848.00
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GENE10589 GENE12743 GENE12743 GENE10590 GENE4705 GENE13308 GENE10593 GENE10593 GENE4709 GENE10598 GENE4707 GENE10599 GENE13310 GENE4712 GENE13312 GENE13313 GENE13313 GENE10604 GENE12744 GENE4712 GENE4722	82639928.00 HSA16 83514072.00 HSA16 83624120.00 HSA16 83728168.00 HSA16 83728168.00 HSA16 83856968.00 HSA16 83894792.00 HSA16 84107656.00 HSA16 84261344.00 HSA16 84261344.00 HSA16 85054240.00 HSA16 8509872.00 HSA16 85524624.00 HSA16 85524624.00 HSA16 85736096.00 HSA16 85736096.00 HSA16 85774448.00 HSA16 85774448.00 HSA16 87149048.00 HSA16 87227504.00 HSA16 87656184.00 HSA16 83252224.00 HSA16 83252224.00 HSA16 8331712.00 HSA16 83432600.00 HSA16	GENE 10370 - GENE 4694 - GENE 10580 - GENE 10580 - GENE 10581 - GENE 10575 - GENE 10575 - GENE 10576 - GENE 10562 - GENE 10563 - GENE 10565 - GENE 10565 - GENE 10565 - GENE 10566 - GENE 10566 - GENE 10566 - GENE 10568 -	4190.00 4205.00 4213.00 4220.00 4242.00 4249.00 4256.00 4271.00 4282.00 4289.00 4309.00 4309.00 4312.00 4316.00 4316.00 4323.00 4334.00 4351.00 4351.00 4370.00 4396.00	GENE4694	CFA05 GENE4680 CFA05 GENE10565 CFA05 GENE10307 CFA05 GENE10307 CFA05 GENE10307 CFA05 GENE10307 CFA05 GENE10566 CFA05 GENE10568 CFA05 GENE10568 CFA05 GENE12742 CFA05 GENE4686 CFA05 GENE4688 CFA05 GENE4667 CFA05 GENE4673 CFA05 GENE4670 CFA05 GENE46670 CFA05 GENE46670 CFA05 GENE4667 CFA05 GENE10553 CFA05 GENE10551 CFA05 GENE10550 CFA05 GENE4664 CFA05 GENE10548 CFA05 GENE10548 CFA05 GENE4663	79819896.00 79974192.00 80131864.00 80204608.00 80287704.00 80600856.00 80849888.00 82233008.00 82900392.00 83103568.00 83409760.00 83709072.00 84084224.00 84379008.00 84469968.00 84469968.00 84462904.00 84823520.00
GENE 13315 GENE 10608 GENE 4723 GENE 4725 GENE 10611 GENE 4727 GENE 10612 GENE 4726 GENE 4728 GENE 4728 GENE 4065	88465696.00 HSA16 88858128.00 HSA16 88910720.00 HSA16 8901824.00 HSA16 89342056.00 HSA16 89446624.00 HSA16 90484616.00 HSA16 90883688.00 HSA16 90883688.00 HSA16 40298212.00 HSA13	BAC_382-A2 GENE4673 - GENE4688 - BAC_382-E6 GENE4677 - GENE4677 - GENE4677 - GENE4667 - GENE10551 - GENE10551 - GENE10551 - GENE10552 - GENE4666 - GENE4666 - GENE4668 - GENE4688 - GE	4449.00 4473.00 4503.00 4503.00 4533.00 4558.00 4571.00 4575.00 4580.00 4580.00 4584.00 4584.00 4582.00 4592.00 4692.00 4604.00 4612.00 4628.00 4639.00 4651.00 4651.00 4666.00 4677.00 4698.00 4780.00 4780.00 4784.00 4799.00 4810.00 4847.00 4854.00 4878.00	BRC_382-A2 -GENE4673 -GENE46673 -GENE46673 -GENE46673 -GENE4667 -GENE10551 -GENE10551 -GENE4666 -GENE10547 -GENE10547 -GENE4663 -GENE4663 -GENE4663 -GENE4663 -GENE4665 -GENE4665 -GENE4665 -GENE4665 -GENE4655 -GENE46655 -GENE4655 -G	CFA05 GENE10547 CFA05 GENE4662 CFA05 GENE4661 CFA05 GENE13304 CFA05 GENE10544 CFA05 GENE10544 CFA05 GENE10543 CFA05 GENE10542 CFA05 GENE4657 CFA05 GENE4655 CFA05 GENE4655 CFA01 GENE5288 CFA12 GENE8096	85052112.00 85128208.00 85219624.00 85260776.00 85343072.00 85431872.00 85512240.00 85512240.00 85659872.00 85737960.00 85838208.00 89847680.00 112058064.00 58535176.00

GENE2990 GENE9577 GENE2329 GENE12504	9378565.00 HSH12 125752888.00 HSA11 288327.00 HSA07 413605.00 HSA07	GENE2438 GENE2990 - GENE8335 - GENE2438 -	2.00 12.00 16.00	-GENE2438	CFR37 GENE6852 14240023.00 CFR06 GENE2990 3052244.00 CFR06 GENE2436 3210988.00 CFR06 GENE8335 3448494.00
GENE8228 GENE2331 GENE12505 GENE8229	516514.00 HSA07 667211.00 HSA07 667211.00 HSA07 681018.00 HSA07	-GENE8336 - -GENE2439 - -GENE8338 - -GENE8338 - -GENE8339 -	23.00 25.00 30.00 35.00	- GENE8336	CFR06 GENE2438 3448494.00 CFR06 GENE8336 3497077.00 CFR06 GENE2439 3582107.00 CFR06 GENE8338 3812233.00
GENE8230 GENE12506 GENE8231 GENE8232	770888.00 HSA07 836919.00 HSA07 1226186.00 HSA07 1323873.00 HSA07	-GENE2442 - -GENE2443 - -GENE3440 - -GENE3440 - -GENE2451 -	46.00 78.00 87.00 211.00	-GENE2442	CFA06 GENE8339 3952783.00 CFA06 GENE2442 4067867.00 CFA06 GENE2443 5327747.00 CFA06 GENE8340 5521287.00
GENE12508 GENE8234 GENE2338 GENE8236	2061800.00 HSA07 2310685.00 HSA07 2729248.00 HSA07 3897109.00 HSA07	-GENE12546 - -GENE8348 - BAC_375-E2 -GENE12544 -	219.00 225.00 236.00 238.00	- GENE 12546 - GENE8348 BAC_375-E2 - GENE 12544	CFA06 GENE12546 8315174.00 CFA06 GENE2451 8346677.00 CFA06 GENE8348 8511693.00 CFA06 GENE12545 8801337.00
GENE2339 GENE2340 GENE8238 GENE8240	4574422.00 HSA07 4704091.00 HSA07 4848191.00 HSA07 5284424.00 HSA07	-GENE2448 - -GENE12545 - -GENE8346 - -GENE8345 -	241.00 247.00 252.00 257.00	- GENE2448	CFA06 GENE8346 8990236.00 CFA06 GENE12544 9051796.00 CFA06 GENE2448 9051796.00 CFA06 GENE2448 9051796.00 CFA06 GENE8345 9216987.00
GENE8241 GENE2344 GENE2345 GENE2346	5387285.00 HSA07 5525013.00 HSA07 5943332.00 HSA07 6058526.00 HSA07	GENE8343 - GENE8344 - GENE12543 - GENE22446 -	260.00 262.00 265.00 270.00	- GENE8343	CFR06 GENE8344 9310793.00 CFR06 GENE2446 9366316.00 CFR06 GENE8343 9436234.00 CFR06 GENE2445 9436234.00
GENE12510 GENE8244 GENE2347 GENE12511	6182508.00 HSA07 6304384.00 HSA07 6305939.00 HSA07 6375535.00 HSA07	GENE2445 - GENE342 - GENE341 - GENE9577 -	273.00 276.00 292.00 296.00	-GENE2445	CFA06 GENE12543 9499890.00 CFA06 GENE8342 9594045.00 CFA06 GENE2444 9594045.00 CFA06 GENE8341 9682410.00
GENE2511 GENE2436 GENE2439 GENE8335	43809152.00 HSA07 55808236.00 HSA07 64219676.00 HSA07 64829720.00 HSA07	GENE2444 - GENE3349 - GENE3350 - GENE2452 -	298.00 304.00 307.00 310.00	- GENE2444	CFR06 GENE9577 9682410.00 CFR06 GENE8349 9814296.00 CFR06 GENE8350 9954690.00 CFR06 GENE2452 9954690.00
GENE2438 GENE8336 GENE8338 GENE8339	64844324.00 HSA07 64959332.00 HSA07 65515640.00 HSA07 65821184.00 HSA07	GENE2454 - GENE352 - GENE2456 - GENE2511 -	312.00 315.00 318.00 321.00	- GENE2454	CFR06 GENE2454 10125720.00 CFR06 GENE8352 10239746.00 CFR06 GENE2456 10349515.00 CFR06 GENE2511 10441668.00
GENE2442 GENE8340 GENE2443 GENE2445	65993348.00 HSA07 69658544.00 HSA07 70010384.00 HSA07 71494992.00 HSA07	GENE2510 - GENE2510 - GENE3408 - GENE3407 - GENE3407 -	325.00 334.00 337.00 354.00	- GENE2510	CFR06 GENE2510 10441668.00 CFR06 GENE8408 10441668.00 CFR06 GENE8407 10529017.00 CFR06 GENE8406 11089564.00
GENE8341 GENE2448 GENE2444 GENE8342	71808864.00 HSA07 72082752.00 HSA07 72129232.00 HSA07 72184240.00 HSA07	GENE 12550 - -GENE 12557 - -GENE 12557 - -GENE 2505 - -GENE 2508 -	358.00 362.00 370.00 373.00	-GENE 12550 -GENE 12557 -GENE 2505 -GENE 2508	CFR06 GENE2508 11183/13.00 CFR06 GENE8405 11314028.00 CFR06 GENE12558 11371154.00 CFR06 GENE12557 11614094.00
GENE12543 GENE8343 GENE2446 GENE8344	72275680.00 HSA07 72362600.00 HSA07 72421832.00 HSA07 72529040.00 HSA07	-GENE3406 - -GENE3405 - -GENE3403 - -GENE3403 - -GENE3400 -	379.00 385.00 388.00 404.00	-GENE8406	CFR06 GENE2505 11614094.00 CFR06 GENE8401 11709061.00 CFR06 GENE2503 11789865.00 CFR06 GENE8400 11925089.00
GENE8345 GENE12544 GENE8346 GENE12545	72656320.00 HSA07 72869008.00 HSA07 72947168.00 HSA07 73165152.00 HSA07	GENE83999 - GENE2501 - GENE2503 - GENE2500 -	407.00 410.00 413.00 423.00	-GENE83999 -GENE2501 -GENE2503 -GENE2500	CFA06 GENE8399 11925089.00 CFA06 GENE2501 12046823.00 CFA06 GENE2500 12211554.00 CFA06 GENE2499 12378655.00
GENE2451 GENE8348 GENE12546 GENE8349 GENE8349	73301304.00 HSH07 73537136.00 HSA07 74425192.00 HSA07 74979056.00 HSA07	GENE2499 GENE83995 - GENE2496 - GENE2496 - GENE2394 -	432.00 453.00 456.00 459.00	-GENE2495	CFR06 GENE3395 12493168.00 CFR06 GENE2496 12837468.00 CFR06 GENE3394 12837468.00 CFR06 GENE2497 12837468.00 CFR06 GENE2497 12837468.00
GENE2452 GENE8350 GENE2454 GENE8352 GENE2456	75129032.00 HSA07 75129032.00 HSA07 75476104.00 HSA07 75527024.00 HSA07	GENE 12556 - GENE 12555 -	469.00 482.00 495.00 501.00	GENE 12556	CFR06 GENE12556 12037466.00 CFR06 GENE12555 12999875.00 CFR06 GENE8392 13285844.00 CFR06 GENE2494 13285844.00 CFR06 GENE2494 13285844.00
GENE2493 GENE2493 GENE2492 GENE2496 GENE8390	96781184.00 HSA07 97523008.00 HSA07 97548936.00 HSA07 97548936.00 HSA07		505.00 522.00 529.00 533.00	-GENE28391	CFR06 GENE12554 13507672.00 CFR06 GENE2493 13507672.00 CFR06 GENE2493 13507672.00 CFR06 GENE3390 13713315.00 CFR06 GENE3492 13797396.00
GENE12554 GENE8391 GENE2494 GENE8392	97858456.00 HSA07 98060368.00 HSA07 98158384.00 HSA07 98158384.00 HSA07	GENE8390 - 	539.00 546.00 556.00 559.00	-GENE8390	CFA06 GENE2345 14286483.00 CFA06 GENE2346 14495918.00 CFA06 GENE12510 14495918.00 CFA06 GENE12510 14495918.00
GENE12555 GENE12556 GENE8394 GENE2497	98506592.00 HSA07 98661952.00 HSA07 98702584.00 HSA07 98702584.00 HSA07		562.00 572.00 579.00 588.00	-GENE8244	CFA06 GENE12511 14653422.00 CFA06 GENE2347 14725303.00 CFA06 GENE238 14878826.00 CFA06 GENE2384 14988800.00
GENE8395 GENE2505 GENE8403 GENE2499	98871632.00 HSA07 99007312.00 HSA07 99085160.00 HSA07 99137744.00 HSA07	-GENE8240 - -GENE8241 - -GENE8236 - -GENE2340 -	603.00 612.00 618.00 621.00	-GENE8240	CFA06 GENE8241 15115640.00 CFA06 GENE8240 15196930.00 CFA06 GENE2340 15493886.00 CFA06 GENE2339 15625888.00
GENE2500 GENE2501 GENE8399 GENE8400	99322352.00 HSA07 99410896.00 HSA07 99610664.00 HSA07 99762192.00 HSA07	-GENE2339 - -GENE2344 - -GENE2338 - -GENE2338 - -GENE5940 -	624.00 631.00 642.00 655.00	-GENE2339 -GENE2344 -GENE2338 -GENE5940	CFA06 GENE8236 16049253.00 CFA06 GENE5940 16437575.00 CFA06 GENE2338 17041628.00 CFA06 GENE8234 17380652.00
GENE2503 GENE8401 GENE12557 GENE12558	99835336.00 HSA07 99931576.00 HSA07 100092192.00HSA07 100440584.00HSA07	BAC_381-P18 -GENE8234 - -GENE12508 - -GENE8232 -	657.00 672.00 675.00 681.00	BAC_381-P18 -GENE8234	CFA06 GENE12508 17626636.00 CFA06 GENE8232 18158654.00 CFA06 GENE8231 18303244.00 CFA06 GENE10497 18368092.00
GENE8405 GENE2508 GENE8406 GENE8407	100518224.00 HSA07 100623016.00 HSA07 100816616.00 HSA07 101520752.00 HSA07		687.00 692.00 698.00 700.00	-GENE8231 GENE12506 GENE8230 GENE8229	CFA06 GENE4612 18464944.00 CFA06 GENE10498 18487740.00 CFA06 GENE4613 18523092.00 CFA06 GENE4614 18673584.00
GENE2510 GENE8408 GENE10414 GENE10415	101658048.00 HSA07 101670320.00 HSA07 170450.00 HSA16 335887.00 HSA16		718.00 724.00 730.00 739.00	GENE2331 GENE12505 GENE8228 GENE12504	CFA06 GENE10500 18742584.00 CFA06 GENE4615 18842326.00 CFA06 GENE10501 18934368.00 CFA06 GENE10502 19034392.00
GENE13285 GENE13288 GENE10418 GENE10420	539632.00 HSA16 756056.00 HSA16 976505.00 HSA16 1339206.00 HSA16	-GENE2329 - -GENE4614 - -GENE10504 - -GENE10503 -	752.00 774.00 777.00 781.00	GENE2329 -GENE4614 -GENE10504 -GENE10503	CFA06 GENE4617 19129700.00 CFA06 GENE10503 19206490.00 CFA06 GENE10504 19281352.00 CFA06 GENE4611 19305944.00
GENE13289 GENE10423 GENE4538 GENE13291	1691054.00 HSA16 1843563.00 HSA16 1974721.00 HSA16 2033211.00 HSA16	GENE10502 - GENE10501 - BAC_376-N5 GENE10507 -	792.00 821.00 836.00 843.00	-GENE10502 -GENE10501 BAC_376-N5 -GENE4617 -GENE4617	CFR06 GENE10493 19378040.00 CFR06 GENE10494 19471776.00 CFR06 GENE4609 19555084.00 CFR06 GENE4610 19658504.00
GENE13292 GENE10426 GENE4541 GENE4542	21/9817.00 HSA16 2351256.00 HSA16 2506335.00 HSA16 2519029.00 HSA16	GENE10500 - 	883.00 941.00 958.00	-GENE10500 -GENE4615 -GENE4611 -GENE10493	CFR06 GENE4605 19720676.00 CFR06 GENE4606 19969476.00 CFR06 GENE4607 20016452.00 CFR06 GENE4604 20238296.00
GENE10420 GENE4543 GENE12733 GENE10430	25804492.00 HSA16 2758047.00 HSA16 2880109.00 HSA16 2983178.00 HSA16	EST24B4 /GENE4613 - GENE10498 - GENE10498 -	975.00 979.00 986.00 992.00	EST24B4 - GENE4613 - GENE10498 - GENE10497	CFR06 GENE13236 20409718.00 CFR06 GENE4603 20718932.00 CFR06 GENE10488 20718932.00 CFR06 GENE4602 20816672.00 CFR06 GENE4602 20816672.00
GENE4545 GENE4546 GENE13294 GENE10434	3168540.00 HSA16 3168540.00 HSA16 3544734.00 HSA16 3599260.00 HSA16	-GENE10494 - -GENE10494 - -GENE4609 - -GENE4610 - -GENE4610 -	1002.00 1020.00 1043.00 1065.00	GENE10494 -GENE10494 -GENE4609 -GENE4610 -GENE4605	CFR06 GENE10437 20924704.00 CFR06 GENE4601 21065502.00 CFR06 GENE4599 22643816.00 CFR06 GENE4598 22762274.00 CFR06 GENE4598 22762274.00
GENE10437 GENE10438 GENE13295 GENE4550	4431073.00 HSA16 4561245.00 HSA16 4621595.00 HSA16 4659841 00 HSA16	-GENE4605 - -GENE4606 - -GENE4607 - -GENE4604 -	1084.00 1095.00 1105.00 1123.00	- GENE4606 - GENE4607 - GENE4604 - GENE13298	CFR06 GENE4597 23017048.00 CFR06 GENE4596 23341650.00 CFR06 GENE4595 23784292.00 CFR06 GENE4595 23784292.00
GENE10439 GENE12734 GENE10441 GENE10442	4729210.00 HSA16 4895859.00 HSA16 5040785.00 HSA16 6754583.00 HSA16	-GENE13298 - -GENE4603 - -GENE10487 - -GENE4601 - -ROC 27E 044	1135.00 1141.00 1147.00 1156.00	-GENE4603 -GENE10487 -GENE4601 BAC_375-G10	CFA06 GENE10479 23910732.00 CFA06 GENE10478 24172104.00 CFA06 GENE4592 24313716.00 CFA06 GENE10477 24380408.00
GENE4560 GENE10446 GENE4561 GENE10447	8844702.00 HSA16 8976334.00 HSA16 9154694.00 HSA16 10541946.00 HSA16	GENE4602 - GENE10488 - GENE10483 - GENE10483 - GENE4599 -	1169.00 1175.00 1213.00 1234.00	-GENE4602 -GENE10488 -GENE10483 -GENE4599	CFA06 GENE10476 24990260.00 CFA06 GENE12738 25071004.00 CFA06 GENE4590 25071004.00 CFA06 GENE10475 25142814.00
GENE4562 GENE10448 GENE4563 GENE10449	10754598.00 HSA16 10835198.00 HSA16 10969086.00 HSA16 11039203.00 HSA16	-GENE4598 - -GENE4597 - -GENE4596 - -GENE4595 -	1252.00 1273.00 1288.00 1299.00	-GENE4598 -GENE4597 -GENE4596 -GENE4595	CFA06 GENE4587 25756060.00 CFA06 GENE4588 25756060.00 CFA06 GENE4586 25973702.00 CFA06 GENE10472 25973702.00
GENE4564 GENE10450 GENE4566 GENE10453	11329027.00 HSA16 11411199.00 HSA16 11739399.00 HSA16 12028009.00 HSA16	-GENE4594 - -GENE10479 - -GENE10479 - -GENE4592 - -GENE10478 -	1310.00 1313.00 1321.00 1331.00	-GENE4594 -GENE10479 -GENE4592 -GENE10478	CFA06 GENE12737 25973702.00 CFA06 GENE4585 26115160.00 CFA06 GENE10470 26432114.00 CFA06 GENE4584 26466980.00
GENE10454 GENE4569 GENE10455 GENE10456	12458185.00 HSA16 12764837.00 HSA16 13995108.00 HSA16 14260085.00 HSA16	-GENE10477 - -GENE10475 - -GENE10476 - -GENE10476 - -GENE12738 -	1342.00 1353.00 1356.00 1380.00	-GENE10477 -GENE10475 -GENE10476 -GENE12738	CFA06 GENE10468 26558722.00 CFA06 GENE4582 26558722.00 CFA06 GENE10467 26868236.00 CFA06 GENE10466 27121896.00
GENE4570 GENE4571 GENE4583 GENE12735	14325611.00 HSA16 14810527.00 HSA16 15140195.00 HSA16 15661429.00 HSA16	-GENE4590 - -GENE10470 - -GENE10468 - BAC_376-P9	1405.00 1442.00 1451.00 1463.00	-GENE4590 -GENE10470 -GENE10468 BAC_376-P9	CFA06 GENE4580 27168710.00 CFA06 GENE4579 27307280.00 CFA06 GENE4577 27528792.00 CFA06 GENE10463 27596500.00
GENE4572 GENE10458 GENE4576 GENE4577	15747667.00 HSA16 15898165.00 HSA16 18826986.00 HSA16 19055084.00 HSA16	GENE4582 - GENE4584 - GENE4586 - GENE4587 -	1470.00 1481.00 1492.00 1496.00	- GENE4582 - GENE4584 - GENE4586 - GENE4587	CFA06 GENE4576 27878048.00 CFA06 GENE10458 29684624.00 CFA06 GENE4572 29758476.00 CFA06 GENE12735 29805170.00
GENE10463 GENE4579 GENE4580 GENE10466	19151296.00 HSA16 19525448.00 HSA16 19687892.00 HSA16 19713052.00 HSA16	GENE4588 - GENE4585 - GENE10472 - GENE10472 - GENE104737 -	1500.00 1508.00 1513.00 1527.00	-GENE4588 - -GENE4585 - -GENE10472 - -GENE12737 -	CFA06 GENE4571 29878480.00 CFA06 GENE4583 30122928.00 CFA06 GENE4570 30574664.00 CFA06 GENE10456 30574664.00
GENE10467 GENE4582 GENE10468 GENE4584 GENE4584	2000/900.00 HSA16 20296002.00 HSA16 20326640.00 HSA16 20458372.00 HSA16	GENE10467 - GENE10467 - GENE4580 - GENE4579 - GENE4579 - GENE4579 -	1545.00 1553.00 1560.00 1568.00	-GENE104667 -GENE4580 -GENE4579 -GENE4579	CFR06 GENE10455 30795562.00 CFR06 GENE4569 31833352.00 CFR06 GENE10454 32067580.00 CFR06 GENE10453 32464480.00 CFR06 GENE10453 32464480.00
GENE10470 GENE4585 GENE12737 GENE4586 GENE10472	200774046.00 HSA16 20774046.00 HSA16 20912564.00 HSA16 20921194.00 HSA16 20921140 00 HSA16	GENE1577 - GENE4577 - GENE4576 - GENE6852 - GENE10458 -	1593.00 1624.00 1652.00	GENE10460 - GENE4577 - GENE4576 - GENE6852 - GENE10458	CFR06 GENE4566 32713666.00 CFR06 GENE4564 33063168.00 CFR06 GENE10450 33063168.00 CFR06 GENE10449 33334882.00 CFR06 GENE10449 33334882.00
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GENE10478 GENE10479 GENE4594 GENE4595	23190392.00 HSA16 23458236.00 HSA16 23548156.00 HSA16 23636360.00 HSA16	-GENE4589 - -GENE10453 - -GENE4586 - -GENE4586 - -GENE4584 -	1853.00 1866.00 1872.00 1888.00	-GENE4569 -GENE10453 -GENE4566 -GENE4564	CFA06 GENE12734 38192400.00 CFA06 GENE10439 38355516.00 CFA06 GENE4553 38411104.00 CFA06 GENE13295 38433248.00
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GENE4599 GENE4601 GENE10487 GENE4602	25089152.00 HSA16 27044728.00 HSA16 27210696.00 HSA16 27339836.00 HSA16	-GENE4563 - -GENE4562 - -GENE4561 - -GENE10446 -	1938.00 1971.00 2045.00 2055.00	-GENE4563 -GENE4562 -GENE4561 -GENE10446	CFR06 GENE10434 39296096.00 CFR06 GENE13294 39439048.00 CFR06 GENE4546 39696900.00 CFR06 GENE4545 39773556.00
GENE10488 GENE4603 GENE13298 GENE4604	27415140.00 HSA16 27477864.00 HSA16 27806000.00 HSA16 28083066.00 HSA16		2059.00 2079.00 2093.00 2102.00	- GENE4560 - GENE10443 - GENE10441 - GENE12734	CFA06 GENE10430 39839528.00 CFA06 GENE12733 39956576.00 CFA06 GENE4543 40006680.00 CFA06 GENE10428 40040112.00
GENE4605 GENE4606 GENE4607 GENE10493	28693172.00 HSA16 28935976.00 HSA16 29026802.00 HSA16 29743496.00 HSA16		2116.00 2124.00 2128.00 2132.00	-GENE10439 -GENE10438 -GENE13295 -GENE11706	CFA06 GENE4542 40125636.00 CFA06 GENE4541 40184036.00 CFA06 GENE10426 40239368.00 CFA06 GENE13292 40387220.00
GENE10494 GENE4609 GENE4610 GENE4611	29911416.00 HSA16 29949922.00 HSA16 30134728.00 HSA16 30403652.00 HSA16		2136.00 2141.00 2151.00 2179.00	-GENE4550 -GENE4553 -GENE10437 -GENE13294	CFR06 GENE13291 40493200.00 CFR06 GENE4538 40568500.00 CFR06 GENE10423 40654560.00 CFR06 GENE10420 41047784.00
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GENE10500 GENE4615 GENE10501 GENE4613 GENE46500	30935164.00 HSA16 31000492.00 HSA16 31080354.00 HSA16 31102368.00 HSA16		2259.00 2251.00 2256.00 2269.00	- GENE 10430 - - GENE 12733 - - GENE 4543 - - GENE 10428 -	CFR06 GENE10415 41/92076.00 CFR06 GENE10414 41934116.00 CFR06 GENE296 42252284.00 CFR06 GENE11915 42403812.00
GENE10502 GENE4617 GENE10503 GENE10504	31233012.00 HSA16 31312592.00 HSA16 31418384.00 HSA16 <u>31575024.00</u> HSA16	GENE10426 - GENE10426 - GENE13292 - GENE4541 - GENE13291	2285.00 2288.00 2299.00 2305.00	GENE10426 - GENE10426 - GENE13292 - GENE4541 - GENE4541	CFR06 GENE295 42474464.00 CFR06 GENE6202 42581868.00 CFR06 GENE294 42630296.00 CFR06 GENE6201 42899988.00 CFR06 CENE6201 4289998.00
GENE12323 GENE6852 GENE11706 GENE5940 GENE217	203349216.00 HSA02 99440344.00 HSA02 9949252.00 HSA01 67537056.00 HSA01	GENE10120	2309.00 2315.00 2329.00 2338.00	-GENE4538 -GENE10423 GENE13289 -GENE10420	CFR06 GENE233 43301720.00 CFR06 GENE291 43356320.00 CFR06 GENE291 43356320.00 CFR06 GENE298 43465740.00 CFR06 GENE288 43925624.00
GENE6126 GENE6127 GENE220 GENE11883	68029496.00 HSA01 68311848.00 HSA01 68374072.00 HSA01 69815680.00 HSA01		2342.00 2371.00 2410.00 2426.00	-GENE10418 -GENE13288 -GENE13285 -GENE12923	CFA06 GENE6193 44202972.00 CFA06 GENE285 44319952.00 CFA06 GENE6192 44391992.00 CFA06 GENE11911 44508420.00
GENE221 GENE11884 GENE222 GENE6130	69983304.00 HSA01 70067856.00 HSA01 70274488.00 HSA01 70688336.00 HSA01	EST14G8 	2438.00 2442.00 2453.00 2461.00	EST14G8 -GENE10415 -GENE10414 -GENE294	CFA06 GENE283 44597904.00 CFA06 GENE6190 44700112.00 CFA06 GENE6189 44948864.00 CFA06 GENE281 45297592.00
GENE223 GENE6131 GENE224 GENE6132	70899776.00 HSA01 71426688.00 HSA01 74039680.00 HSA01 74178632.00 HSA01	-GENE296 - -GENE295 - -GENE11915 - 	2465.00 2469.00 2473.00 2480.00	- GENE296 - GENE295 - GENE11915 - GENE6202	CFA06 GENE6188 45578616.00 CFA06 GENE6187 47108724.00 CFA06 GENE11909 49122600.00 CFA06 GENE278 49817280.00
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GENE227 GENE6135 GENE228 GENE6136	75649360.00 HSA01 75677072.00 HSA01 75764704.00 HSA01 76937224.00 HSA01	-GENE293 - -GENE288 - -GENE283 - -GENE283 - -GENE283 -	2513.00 2522.00 2531.00 2535.00	-GENE293 -GENE288 -GENE283 -GENE285	CFA06 GENE275 50773416.00 CFA06 GENE6182 50897916.00 CFA06 GENE11906 50897916.00 CFA06 GENE11905 51018820.00
GENE229 GENE11885 GENE6138 GENE11887	77008800.00 HSA01 77298912.00 HSA01 77610232.00 HSA01 77689448.00 HSA01	GENE6193 - GENE6192 - GENE1911 - GENE6190 -	2539.00 2543.00 2547.00 2559.00	-GENE6193 - -GENE6192 - -GENE11911 - -GENE6190 -	CFR06 GENE273 51259232.00 CFR06 GENE6180 51333952.00 CFR06 GENE6179 51478664.00 CFR06 GENE270 52070420.00
GENE0135 GENE11888 GENE6141 GENE234 GENE11889	77901112.00 HSA01 78380760.00 HSA01 78516008.00 HSA01 78516008.00 HSA01	/GENE6187 - /GENE6188 - /GENE281 - /GENE279 -	2566.00 2578.00 2585.00 2652.00	-GENE6187 -GENE6188 -GENE281 GENE279	CFA06 GENE11902 52365760.00 CFA06 GENE6176 52520412.00 CFA06 GENE6175 53985784.00 CFA06 GENE6175 55877188.00
GENE6143 GENE6144 GENE237 GENE6145	81586544.00 HSA01 83637728.00 HSA01 83805416.00 HSA01 84123424.00 HSA01	GENE279 -GENE11909 - -GENE11908 - -GENE278 - 	2673.00 2685.00 2711.00 2734.00	-GENE11909 -GENE11908 -GENE278 -GENE276	CFA06 GENE6172 56090408.00 CFA06 GENE6171 56544116.00 CFA06 GENE263 56632280.00 CFA06 GENE6170 56772864.00
GENE6146 GENE239 GENE6148 GENE241	84302512.00 HSA01 84384136.00 HSA01 84701512.00 HSA01 84814464.00 HSA01	-GENE275 - -GENE11907 - -GENE6182 - -GENE6183 -	2738.00 2742.00 2746.00 2768.00	-GENE275 -GENE11907 -GENE6182 -GENE6183	CFA06 GENE262 57188192.00 CFA06 GENE11899 57188192.00 CFA06 GENE261 57406924.00 CFA06 GENE261 57406924.00
GENE6149 GENE242 GENE6150 GENE243	84914048.00 HSA01 84985232.00 HSA01 85056704.00 HSA01 85078128.00 HSA01	-GENE11905 - -GENE6180 - -GENE11906 - -GENE273 -	2793.00 2797.00 2809.00 2818.00	-GENE11905- -GENE6180 -GENE11906- -GENE273	CFA06 GENE11897 57701232.00 CFA06 GENE11896 57894668.00 CFA06 GENE11895 57894668.00 CFA06 GENE257 58269056.00
GENE6151 GENE244 GENE6152 GENE245	85158840.00 HSA01 85336528.00 HSA01 85594880.00 HSA01 86002976.00 HSA01	-GENE270 -GENE6179 - -GENE6177 - -GENE11902 -	2823.00 2831.00 2835.00 2853.00	- GENE270 - GENE6179 - GENE6177 - GENE11902	CFA06 GENE236 58269056.00 CFA06 GENE258 58269056.00 CFA06 GENE6163 58697452.00 CFA06 GENE255 58863088.00
GENE6153 GENE246 GENE6154 GENE247	86246328.00 HSA01 86343856.00 HSA01 86462768.00 HSA01 86523856.00 HSA01	GENE6176 - GENE6175 - GENE11900 - GENE6171 -	2868.00 2882.00 2928.00 2936.00	-GENE6176 -GENE6175 -GENE11900 -GENE6171	CFR06 GENE6161 59264564.00 CFR06 GENE253 60133368.00 CFR06 GENE6160 60258808.00 CFR06 GENE252 60414636.00
GENE248 GENE6156 GENE249 GENE6157	86993184.00 HSA01 88765248.00 HSA01 88875464.00 HSA01 88947568.00 HSA01	GENE6172 - GENE263 - GENE261 - GENE261 - GENE262 -	2940.00 2945.00 2967.00 2972.00	-GENE0172 -GENE263 -GENE261 -GENE262	CFA06 GENE6159 60568368.00 CFA06 GENE6157 60903896.00 CFA06 GENE249 61037936.00 CFA06 GENE6156 61037936.00
GENE252 GENE6160 GENE253 GENE6164	89618880.00 HSA01 89868104.00 HSA01 89937296.00 HSA01 90848904.00 HSA01	GENE11899 - GENE6170 - GENE6168 - GENE11896 - CENE11896 -	2982.00 2990.00 3002.00 3027.00	-GENE6170 -GENE6168 -GENE11896 -GENE11895	CFA06 GENE6154 63057628.00 CFA06 GENE247 63057628.00 CFA06 GENE247 63057628.00 CFA06 GENE6153 63340928.00 CFA06 GENE246 63340928.00
GENE255 GENE6163 GENE257 GENE236	91448832.00 HSA01 91656504.00 HSA01 92077632.00 HSA01 92234608.00 HSA01	GENE257 - GENE6163 - GENE236 - GENE258 -	3035.00 3040.00 3054.00 3058.00	-GENE257 -GENE6163 -GENE236 -GENE258	CFA06 GENE245 63340928.00 CFA06 GENE6152 63866176.00 CFA06 GENE244 64151864.00 CFA06 GENE6151 64254516.00
GENE258 GENE11895 GENE11896 GENE11897	92257928.00 HSA01 92449088.00 HSA01 92673560.00 HSA01 92784528.00 HSA01	GENE255 GENE6161 GENE249 GENE252	3073.00 3078.00 3140.00 3164.00	-GENE255 -GENE6161 -GENE252 -GENE252	CFR06 GENE243 64337828.00 CFR06 GENE6150 64337828.00 CFR06 GENE242 64412532.00 CFR06 GENE6149 64467084.00
GENE261 GENE261 GENE11899 GENE262 GENE262	93090960.00 HSA01 93206992.00 HSA01 93283896.00 HSA01 93471120.00 HSA01 93813600 60 HSA01	GENE253 GENE6160 GENE6159 GENE6157	3182.00 3194.00 3202.00 3209.00	-GENE6160 -GENE6159 -GENE6157 -GENE6156	CFR06 GENE241 64518560.00 CFR06 GENE6148 64649848.00 CFR06 GENE239 64889952.00 CFR06 GENE6146 65026892.00 CFR06 GENE6146
GENE263 GENE6171 GENE6172 GENE11900	93996680.00 HSA01 94126120.00 HSA01 94560792.00 HSA01 95110016.00 HSA01	GENEO156 - GENEO156 - GENEO153 - GENEO154 - GENE246 - GENE246 -	3241.00 3244.00 3252.00 3260.00	-GENE6153 -GENE6154 -GENE246 -GENE248	CFA06 GENE237 65392504.00 CFA06 GENE6144 65651332.00 CFA06 GENE6143 67430496.00 CFA06 GENE11889 69731880.00
GENE6175 GENE6176 GENE11902 GENE6177	96722168.00 HSA01 98627032.00 HSA01 98884960.00 HSA01 99075888.00 HSA01	-GENE245 -GENE247 -GENE247 -GENE241 -GENE239	3273.00 3288.00 3305.00 3320.00	-GENE245 -GENE247 -GENE241 -GENE239	CFA06 GENE234 69908336.00 CFA06 GENE6141 69908336.00 CFA06 GENE11888 70416184.00 CFA06 GENE6139 70521992.00
GENE270 GENE6179 GENE6180 GENE273	99232960.00 HSA01 99943696.00 HSA01 100069200.00HSA01 100201504.00HSA01	-GENE243 - -GENE242 - -GENE6152 - -GENE6150 -	3329.00 3346.00 3366.00 3373.00	-GENE243 -GENE242 -GENE6152 -GENE6150	CFA06 GENE11887 70597088.00 CFA06 GENE6138 70693504.00 CFA06 GENE11885 70922552.00 CFA06 GENE229 71172936.00
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GENE276 GENE11907 GENE11908 GENE276	100089984.00 HSA01 100949640.00 HSA01 101168416.00 HSA01 101732664.00 HSA01 101822664.00 HSA01	GENE6148 - GENE237 - GENE6145 - GENE6144 -	3402.00 3427.00 3459.00 3470.00	-GENE237 -GENE6145 -GENE6144 -GENE6143	CFR06 GENE226 72866328.00 CFR06 GENE226 72866328.00 CFR06 GENE6133 73254208.00 CFR06 GENE6132 73481624.00 CFR06 GENE225
GENE11909 GENE279 GENE6187 GENE6189	102816600.00 HSA01 103104872.00 HSA01 106027488.00 HSA01 107378560.00 HSA01	GENE6143	3514.00 3556.00 3589.00 3596.00	-GENE11889 -GENE234 -GENE6141 -GENE11888	CFA06 GENE224 73747120.00 CFA06 GENE6131 76185152.00 CFA06 GENE223 76416536.00 CFA06 GENE6130 76602126 00
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GENE11731 113717168.00 HSAX GENE3968 116674864.00 HSA12 GENE11904 99820872.00 HSA01 GENE349 150830480.00 HSA01	-GENE484 - 0.1 -GENE485 - 6.1 -GENE6391 - 13. -GENE11973 - 27.	00 00 00 00 00 00 00 00 00 00 00 00 00	NE484 CFA07 GI NE485 CFA07 GI NE6391 CFA07 GI NE11973 CFA07 GI CFA07 GI	ENE485 ENE6391 ENE484 ENE11973	3039368.00 3190761.00 3258839.00 3658210.00
GENE350 150941280.00 HSH01 GENE352 151345520.00 HSA01 GENE11926 151455136.00 HSA01 GENE11927 151512224.00 HSA01 GENE354 151654352.00 HSA01		.00 .00 .00	NE11971 CFR07 G NE478 CFR07 G NE11970 CFR07 G NE480 CFR07 G NE480 CFR07 G CFR07 G CFR07 G CFR07 G	ENE 11971 ENE 480 ENE 11970 ENE 479 ENE 478	3987888.00 4072543.00 4121436.00 4192506.00
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GENE3206 152504464.00 HSH01 GENE360 152624752.00 HSA01 GENE362 152847504.00 HSA01 GENE362 153067728.00 HSA01		2.00 2.00 7.00	NE476 CFA07 GI NE6381 CFA07 GI NE6380 CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE476 ENE475 ENE6381 ENE6380	4726542.00 4812579.00 4912783.00
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GENE11951 165464912.00 HSH01 GENE6317 165850960.00 HSA01 GENE11952 166455008.00 HSA01 GENE11953 166687056.00 HSA01		4.00	NE11982	ENES07 ENE6414 ENE508 ENE6415	11137657.00 11385321.00 11461972.00 11810931.00
GENE6320 166769744.00 HSA01 GENE414 166846736.00 HSA01 GENE6321 166879280.00 HSA01 GENE415 166948752.00 HSA01		3.00 6.00 2.00 4.00	NES07 CFA07 G NES08 CFA07 G NES09 CFA07 G NE6415 CFA07 G CFA07 G	ENE509 ENE6416 ENE510 ENE6417	12095548.00 12352451.00 12449258.00 12491806.00
GENE6322 167034704.00 HSA01 GENE11954 167190512.00 HSA01 GENE6323 167616176.00 HSA01 GENE6177 167708992.00 HSA01		6.00 2.00 8.00 1.00	NE510 CFA07 GI NE6417 CFA07 GI NE511 CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE511 ENE6418 ENE512 ENE6419	12671917.00 12671917.00 12868842.00 12989530.00
GENE6324 167882288.00 HSA01 GENE418 168191488.00 HSA01 GENE6325 168345696.00 HSA01 GENE6325 168345696.00 HSA01 GENE419 168413840.00 HSA01		4.00 6.00 5.00 3.00	NE6418 CFA07 GI NE6416 CFA07 GI NE6419 CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE513 ENE514 ENE6422 ENE515	13142912.00 13373224.00 13533652.00 13533652.00
GENE420 168549728.00 HSA01 GENE11955 168774528.00 HSA01 GENE421 168844128.00 HSA01 GENE6328 168909328.00 HSA01		6.00 2.00 4.00 1.00	NE6422 CFA07 GI NE6423 CFA07 GI NE515 CFA07 GI NE514 CFA07 GI	ENE516 ENE6423 ENE6424 ENE518	13674851.00 13816013.00 14575814.00 14650273.00
GENE422 169000288.00 HSA01 GENE6329 169586224.00 HSA01 GENE423 169649312.00 HSA01 GENE11956 169808096.00 HSA01		8.00 3.00 8.00 8.00	NE516 CFA07 GI NE518 CFA07 GI NE6424 CFA07 GI NE519 CFA07 GI	ENE6425 ENE519 ENE6426 ENE520	14933990.00 15050537.00 15186288.00 15596408.00
GENE6331 170101552.00 HSA01 GENE425 170248288.00 HSA01 GENE6332 170395792.00 HSA01 GENE6332 170693136.00 HSA01	-GENE6425 - 64 -GENE6426 - 65 -GENE520 - 66 -GENE520 - 66	1.00 2.00 1.00 6.00	NE6425 CFA07 GI NE6426 CFA07 GI NE520 CFA07 GI NE11731 CFA07 GI	ENE11731 ENE441 ENE3968 ENE442	15991255.00 16109849.00 16181935.00 16349589.00
GENE6367 170942432.00 HSA01 GENE427 171118112.00 HSA01 GENE6334 171170736.00 HSA01 GENE6335 172190896.00 HS801	-GENE441 - 679 -GENE3968 - 680 -GENE442 - 690 -GENE6350 - 700	9.00 2.00 2.00 1.00	NE441 CFA07 Gi NE3968 CFA07 Gi NE442 CFA07 Gi NE6350 CFA07 Gi	ENE6350 ENE444 ENE6351 ENE445	16661486.00 16954164.00 17034288.00 17110246.00
GENE429 172304816.00 HSA01 GENE430 172570720.00 HSA01 GENE6337 173153008.00 HSA01 GENE6339 174488576.00 HSA01	GENE445 - 733 GENE444 - 742 GENE6351 - 758 GENE446 - 777	2.00 2.00 8.00 0.00	NE445 CFA07 GI NE444 CFA07 GI NE6351 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE446 ENE6353 ENE6354 ENE448	17626184.00 18317004.00 18575180.00 18744872.00
GENE433 175230096.00 HSA01 GENE6340 175301200.00 HSA01 GENE6341 175567872.00 HSA01 GENE6341 175567872.00 HSA01	GENE448 - 790 GENE452 - 800 GENE450 - 800 GENE450 - 800 GENE451 - 814	2.00 1.00 5.00 4.00	NE448 CFA07 GI NE452 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE6355 ENE449 ENE6356 ENE450	18821992.00 18886020.00 18930004.00 19121434.00
GENE435 175754080.00 HSA01 GENE6342 175932000.00 HSA01 GENE6343 176057824.00 HSA01 GENE6343 176057824.00 HSA01	GENE6356 - 839 GENE449 - 850 GENE6354 - 880 GENE6353 - 883	9.00 0.00 0.00 7.00	NE6356 CFA07 GI NE449 CFA07 GI NE6354 CFA07 GI NE6353 CFA07 GI	ENE451 ENE452 ENE453 ENE11961	19260316.00 19590672.00 19590672.00 19590672.00
GENE439 176769392.00 HSA01 GENE6346 176843008.00 HSA01 GENE440 177024528.00 HSA01 GENE441 177125632.00 HSA01	BAC_380-D6 900 GENE6355 - 910 GENE453 - 925 GENE11961 - 928	1.00 8.00 5.00 8.00	C_380-D6 CFA07 GI NE6355 CFA07 GI NE453 CFA07 GI NE11961 CFA07 GI	ENE454 ENE11962 ENE11963 ENE456	20002190.00 20421372.00 20683804.00 20926468.00
GENE442 177383824.00 HSA01 GENE6350 177774832.00 HSA01 GENE444 178070688.00 HSA01 GENE444 178156384.00 HSA01	GENE11962 - 94 GENE11963 - 944 BAC_385-H21 947 GENE454 - 95	1.00 4.00 7.00	NE11962 CFA07 GI NE11963 CFA07 GI C_385-H21 CFA07 GI NE454 CFA07 GI	ENE11964 ENE457 ENE6364 ENE6365	20926468.00 21051830.00 21822230.00 22045104.00
GENE445 178196080.00 HSA01 GENE446 178714208.00 HSA01 GENE6353 179590512.00 HSA01 GENE6354 179793888.00 HSA01	GENE456 - 953 GENE457 - 959 GENE11964 - 960 GENE6364 - 980	3.00 9.00 2.00 0.00	NE456 CFA07 GI NE457 CFA07 GI NE11964 CFA07 GI NE6364 CFA07 GI	ENE458 ENE459 ENE6366 ENE460	22045104.00 22126330.00 22300036.00 22535748.00
GENE448 179879952.00 HSA01 GENE6355 180033984.00 HSA01 GENE449 180063600.00 HSA01 GENE6356 180138112.00 HSA01	GENE6365 - 980 GENE6366 - 990 GENE460 - 100 GENE467 - 100	6.00 6.00 02.00 15.00	NE6365 CFA07 GI NE6366 CFA07 GI NE460 CFA07 GI NE467 CFA07 GI	ENE467 ENE440 ENE6346 ENE439	22655444.00 22749960.00 22905512.00 23016924.00
GENE450 180334432.00 HSA01 GENE451 180501232.00 HSA01 GENE11961 180771696.00 HSA01 GENE1261 180834832.00 HSA01	GENE459 - 100 GENE458 - 100 GENE458 - 100 GENE440 - 100 GENE439 - 100	37.00 48.00 74.00 78.00	NE459 CFA07 GI NE458 CFA07 GI NE440 CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE437 ENE6343 ENE6342 ENE435	23387436.00 23552056.00 23687632.00 23762270.00
GENE453 180855056.00 HSA01 GENE454 181280640.00 HSA01 GENE11962 181836992.00 HSA01 GENE11963 182011504.00 HSA01	GENE6346 - 108 BAC_373-K8 108 GENE6333 - 109 GENE6343 - 109	81.00 84.00 93.00 96.00	NE6346 CFR07 GI C_373-K8 CFR07 GI CFR07 GI CFR07 GI CFR07 GI CFR07 GI CFR07 GI	ENE434 ENE6341 ENE6340 ENE433	23878408.00 24052090.00 24220976.00 24328568.00
GENE456 182347680.00 HSA01 GENE11964 182429936.00 HSA01 GENE457 182510016.00 HSA01 GENE6364 183351024.00 HSA01	GENE437 - 11 GENE435 - 11 GENE6342 - 11 GENE6341 - 11	02.00 09.00 12.00 16.00	NE437 CFR07 GI NE435 CFR07 GI CFR07 GI CFR07 GI CFR07 GI CFR07 GI CFR07 GI	ENE6339 ENE6337 ENE430 ENE439	24956358.00 26158752.00 26692100.00 26933022.00
GENE458 183521248.00 HSA01 GENE6365 183605936.00 HSA01 GENE459 183652160.00 HSA01 GENE6366 183885392.00 HSA01	GENE6340 - 111 GENE434 - 111 GENE434 - 111 GENE6339 - 114 GENE6337 - 114	26.00 33.00 45.00 54.00	NE6340	ENE6335 ENE427 ENE6334 ENE6367	27128876.00 27897556.00 27897556.00 28076976.00
GENE460 184184784.00 HSA01 GENE467 194214832.00 HSA01 GENE6374 194314160.00 HSA01 GENE6375 194414816.00 HSA01	GENE6335 - 118 GENE429 - 119 GENE430 - 120 GENE425 - 120	80.00 92.00 01.00 32.00	NE6335 CFR07 GI NE429 CFR07 GI NE430 NE425 CFR07 GI CFR07 GI CFR07 GI	ENE426 ENE425 ENE6332 ENE6331	28286344.00 28530120.00 28530120.00 28712276.00
GENE469 194614048.00 HSA01 GENE6376 194850384.00 HSA01 GENE11967 195520880.00 HSA01 GENE11968 195781824.00 HSA01	GENE427 - 123 GENE426 - 124 GENE6367 - 124 GENE6367 - 124 GENE6334 - 135	39.00 43.00 46.00 50.00	NE427	ENE11956 ENE423 ENE6329 ENE422	29030812.00 29169372.00 29295044.00 29998010.00
GENE6378 196013072.00 HSA01 GENE472 197305312.00 HSA01 GENE6379 197874656.00 HSA01 GENE6380 198170272.00 HSA01	GENE6332 - 125 GENE6331 - 126 GENE11956 - 120 GENE6329 - 125	57.00 63.00 67.00 70.00	NE6332 CFA07 GI NE6331 CFA07 GI NE11956 CFA07 GI NE6329 CFA07 GI CFA07 GI CFA07 GI	ENE421 ENE6328 ENE11955 ENE420	29998010.00 29998010.00 29998010.00 30179324.00
GENE6381 198299840.00 HSA01 GENE475 198408816.00 HSA01 GENE476 198550000.00 HSA01 GENE476 198550000.00 HSA01 GENE6383 198643072.00 HSA01	BAC_376-H13 127 GENE423 - 128 GENE422 - 130 GENE421 - 130	76.00 83.00 00.00 04.00	C_376-H13 NE423 NE422 NE421 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE6325 ENE419 ENE418 ENE6324	30393344.00 30393344.00 30393344.00 30593344.00 30593804.00
GENE11969 198746112.00 HSA01 GENE6385 198986176.00 HSA01 GENE478 199065184.00 HSA01 GENE479 199112864.00 HSA01	GENE6328 - 13) GENE11955 - 13: BAC_382-C16 13: GENE420 - 13:	07.00 14.00 17.00 34.00	NE6328 CFA07 G NE11955 CFA07 G C_382-C16 CFA07 G NE420 CFA07 G CFA07 G	ENE417 ENE6323 ENE11954 ENE6322	30813850.00 30918384.00 31181242.00 31394014.00
GENE11970 199156976.00 HSA01 GENE480 199226304.00 HSA01 GENE11971 199428400.00 HSA01 GENE11973 199719584.00 HSA01		43.00 46.00 49.00 52.00	NE6322 CFA07 G NE6325 NE11954 CFA07 G NE6324 CFA07 G CFA07 G CFA07 G CFA07 G	ENE415 ENE6321 ENE414 ENE6320	31394014.00 31495852.00 31578436.00 31578436.00
GENE484 200218336.00 HSA01 GENE6391 200280112.00 HSA01 GENE485 200431328.00 HSA01 GENE485 201431328.00 HSA01 GENE6396 201277680.00 HSA01	GENE6323 - 135 BAC_374-07 136 GENE419 - 133 GENE417 - 138	56.00 65.00 75.00 85.00	NE6323 CFA07 GI C_374-07 CFA07 GI NE419 NE417 CFA07 GI	ENE11953 ENE11952 ENE6317 ENE11950	31720718.00 31989268.00 32469704.00 32841580.00
GENE501 204159456.00 HSA01 GENE6408 20422592.00 HSA01 GENE502 204304176.00 HSA01 GENE6409 204369888.00 HSA01		12.00 16.00 23.00 33.00	NE418 CFA07 GI NE414 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE11951 ENE6315 ENE6314 ENE6313	32841580.00 33092760.00 33092760.00 33381808.00
GENE11980 204745696.00 HSA01 GENE504 204841504.00 HSA01 GENE11981 205070672.00 HSA01 GENE505 205297840.00 HSA01		43.00 46.00 53.00 66.00	NE6320 CFA07 GI NE11953 CFA07 GI NE11952 NE6317 CFA07 GI CFA07 GI	ENE6312 ENE11946 ENE6310 ENE403	33784684.00 33784684.00 34090976.00 34090976.00
GENE6412 206861488.00 HSA01 GENE11982 207011056.00 HSA01 GENE11983 207047072.00 HSA01 GENE507 207086880.00 HSA01		69.00 72.00 93.00 03.00	NE11950 CFA07 GI NE11951 CFA07 GI NE6315 NE6313 CFA07 GI	ENE574 ENE6396 ENE6481 ENE575	34586496.00 35277320.00 35617208.00 35617208.00
GENE6414 207345808.00 HSA01 GENE508 207495680.00 HSA01 GENE6415 207928368.00 HSA01 GENE509 208172256.00 HSA01		09.00 29.00 32.00 35.00	NE6314 CFA07 GI NE6312 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE6482 ENE11990 ENE6483 ENE577	35838360.00 36091868.00 36304524.00 36841908.00
GENE6416 208541344.00 HSH01 GENE510 208625168.00 HSA01 GENE6417 208733984.00 HSA01 GENE511 208915440.00 HSA01		49.00 64.00 07.00 14.00	NE574 CFA07 GI NE5396 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE6485 ENE579 ENE11991 ENE580	37769332.00 38051448.00 38051448.00 38197680.00
GENESTIC 2009246208.00 HSA01 GENESTIC 209246208.00 HSA01 GENE6419 209333376.00 HSA01 GENESTIS 209590768.00 HSA01 GENESTIS 209853936.00 HSA01		25.00 41.00 74.00	NE575 NE11990 NE6483 NE577	ENE581 ENE581 ENE6488 ENE582 ENE582	38451104.00 38659808.00 39000736.00
GENE515 210034096.00 HSA01 GENE6422 210083184.00 HSA01 GENE516 210181376.00 HSA01 GENE516 210181376.00 HSA01		08.00 33.00 48.00 61.00	NE581 CFA07 GI NE580 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE583 ENE584 ENE6490 ENE585	39000736.00 39973856.00 39973856.00 40216024.00
GENE6424 211195808.00 HSA01 GENE518 211234496.00 HSA01 GENE6425 211547488.00 HSA01 GENE519 211681376.00 HSA01	-GENE11991 - 176 -GENE6487 - 178 -GENE6488 - 179 -GENE6488 - 179 -GENE582 - 180	68.00 85.00 95.00 06.00	NE11991 CFA07 GI NE6487 NE6488 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE546 ENE6452 ENE545 ENE6451	40461808.00 40649820.00 40649820.00 40758080.00
GENE6426 211867424.00 HSA01 GENE520 212314656.00 HSA01 GENE6441 220921536.00 HSA01 GENE534 220965056.00 HSA01	BAC_381-H23 18: -GENE6489 - 18: -GENE583 - 18: BAC_375-C3 18:	13.00 27.00 42.00 46.00	C_381-H23 NE6489 NE583 C_375-C3	ENE6450 ENE544 ENE542 ENE540	40962460.00 40962460.00 41338328.00 41646408.00
GENE535 221351664.00 HSA01 GENE6442 221451584.00 HSA01 GENE536 221537856.00 HSA01 GENE536 22129408.00 HSA01	-GENE584 - 188 -GENE6490 - 193 -GENE585 - 193 -GENE585 - 193 -GENE6452 - 193	84.00 12.00 30.00 37.00	NE584 CFA07 GI NE6490 NE585 CFA07 GI NE6452 CFA07 GI	ENE6447 ENE6446 ENE539 ENE6445	41646408.00 41646408.00 41877288.00 41949948.00
GENE538 222354912.00 HSA01 GENE6445 222581584.00 HSA01 GENE539 222656288.00 HSA01 GENE6446 222945328.00 HSA01	GENE6450 - 194 GENE6451 - 194 GENE542 - 195 GENE542 - 195 GENE544 - 196	41.00 44.00 52.00 60.00	NE6450 CFA07 GI NE6451 NE542 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE538 ENE6444 ENE536 ENE6442	42065220.00 42198932.00 42623072.00 42738084.00
GENE540 223001408.00 HSA01 GENE6447 223048608.00 HSA01 GENE542 223327808.00 HSA01 GENE542 223327808.00 HSA01	GENE546 - 196 GENE545 - 196 GENE540 - 196 GENE540 - 196 GENE5447 - 196	64.00 68.00 81.00 85.00	NE546 CFA07 GI NE545 NE540 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE535 ENE534 ENE6441 ENE11937	42738084.00 42943280.00 42978888.00 43174004.00
GENE544 223793792.00 HSA01 GENE6451 224057664.00 HSA01 GENE545 224148784.00 HSA01 GENE545 224148784.00 HSA01 GENE6452 224213168.00 HSA01		89.00 32.00 54.00 58.00	NE6446 CFA07 GI NE538 CFA07 GI NE6445 NE539 CFA07 GI CFA07 GI	ENE6278 ENE6277 ENE372 ENE370	43174004.00 43174004.00 43174004.00 43307492.00
GENE546 224416304.00 HSA01 GENE574 237678448.00 HSA01 GENE6481 238765360.00 HSA01 GENE6481 238765360.00 HSA01 GENE575 238796000.00 HSA01		65.00 75.00 79.00 86.00	NE6444 CFA07 GI NE11937 CFA07 GI NE6278 CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE369 ENE6274 ENE11935 ENE365	43665080.00 43870716.00 44065144.00 44219152.00
GENE6482 238987264.00 HSA01 GENE11990 239199360.00 HSA01 GENE6483 239557200.00 HSA01 GENE6483 240265760.00 HSA01		90.00 05.00 09.00 12.00	NE6441 CFA07 GI NE535 NE534 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE364 ENE6271 ENE363 ENE362	44279204.00 44279204.00 44418584.00 44527764.00
GENE6485 241163776.00 HSA01 GENE579 241481648.00 HSA01 GENE11991 24152552.00 HSA01 GENE580 241693536.00 HSA01	-GENE536 - 213 -GENE370 - 213 -GENE372 - 213 -GENE369 - 216	20.00 28.00 36.00 61.00	NE536 CFA07 GI NE370 NE372 CFA07 GI NE369 CFA07 GI CFA07 GI	ENE6267 ENE360 ENE6266 ENE357	44607840.00 44753948.00 44872792.00 45057380.00
GENE6487 241798304.00 HSA01 GENE581 241956592.00 HSA01 GENE6488 242196912.00 HSA01 GENE6488 242196912.00 HSA01 GENE582 242387504.00 HSA01		76.00 91.00 95.00 00.00	NE363 NE365 NE6274 NE364	ENE6263 ENE11930 ENE11927 ENE354	45081108.00 45380032.00 45527748.00 45527748.00
GENE6489 242721040.00 HSA01 GENE583 242812432.00 HSA01 GENE6490 243650784.00 HSA01 GENE584 243756864.00 HSA01		04.00 08.00 20.00 25.00	NE6271 - CFA07 GI NE11935 - CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE11926 ENE352 ENE350 ENE349	45670640.00 45670640.00 45945896.00 46055992.00
GENE585 243996832.00 HSA01 GENE11789 151533840.00 HSAY GENE9473 76816392.00 HSA11 GENE10877 199285.00 HSA18		29.00 43.00 55.00 59.00	NE362 NE6266 NE6263 NE11930	ENE10946 ENE5061 ENE5060 ENE10944	46390388.00 46928376.00 47133852.00 47306312.00
GENE10878 570063.00 HSA18 GENE4994 667438.00 HSA18 GENE10879 713935.00 HSA18 GENE4995 1259259.00 HSA18	-GENE11926 - 226 -GENE11927 - 226 -GENE350 - 223 -GENE359 - 223	62.00 66.00 74.00 78.00	NE11926 CFA07 GI NE11927 NE350 CFA07 GI NE359 NE349 CFA07 GI	ENE5059 ENE10943 ENE5058 ENE5057	47422292.00 47422292.00 47654768.00 47788432.00
GENE13393 2527017.00 HSA18 GENE4996 2576742.00 HSA18 GENE4997 2739734.00 HSA18 GENE10882 2874775.00 HSA18	GENE352 - 228 GENE354 - 228 GENE357 - 229 GENE5061 - 230	82.00 86.00 91.00 09.00	NE352 - CFA07 GI NE354 - CFA07 GI NE357 - CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE5056 ENE10940 ENE10937 ENE5052	48267276.00 48267276.00 55607792.00 55853968.00
GENE4998 2910719.00 HSA18 GENE4999 3241655.00 HSA18 GENE10884 3266983.00 HSA18 GENE5000 3442271.00 HSA18	-GENE10946 - 23: -GENE5060 - 23: -GENE10944 - 23: -GENE5056 - 23:	17.00 29.00 33.00 40.00	NE10996 CFA07 GI NE5060 NE10944 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE5051 ENE10936 ENE10935 ENE5050	56096388.00 56096388.00 56640612.00 56694604.00
GENE10885 3488036.00 HSA18 GENE5001 3590915.00 HSA18 GENE10886 4282567.00 HSA18 GENE8528 5044773.00 HSA18	-GENE10940 - 234 -GENE5057 - 235 -GENE5059 - 235 -GENE10943 - 235	47.00 59.00 71.00 74.00	NE10940 CFA07 GI NE5057 NE5059 CFA07 GI NE10943 CFA07 GI CFA07 GI CFA07 GI	ENE10934 ENE10933 ENE5048 ENE10931	56950560.00 57226872.00 57508704.00 57508704.00
GENE5002 5047337.00 HSA18 GENE10887 5278030.00 HSA18 GENE5003 5382175.00 HSA18 GENE5003 5382175.00 HSA18		78.00 29.00 29.00 52.00	NE5058 - CFA07 GI NE11789 - CFA07 GI NE10937 - CFA07 GI NE5052 - CFA07 GI CFA07 GI	ENE10932 ENE5047 ENE10930 ENE5045	57508704.00 57508704.00 58458188.00 58790792.00
GENE10889 6955219.00 HSA18 GENE10890 8005596.00 HSA18 GENE5006 8112119.00 HSA18 GENE5007 8816175.00 HSA18	-GENE9473 - 256 -GENE5051 - 257 -GENE10934 - 256 -GENE5050 - 256	62.00 73.00 89.00 98.00	NE9973 NE5051 NE10934 NE5050 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE10929 ENE5044 ENE10928 ENE10927	59260428.00 59260428.00 59664232.00 60105600.00
GENE10892 9124064.00 HSA18 GENE5008 9247916.00 HSA18 GENE10893 9502715.00 HSA18 GENE5009 9603473.00 HSA18	-GENE10933 - 260 BAC_381-A22 260 -GENE5048 - 260 -GENE10931 - 260	11.00 18.00 27.00	C_381-A22 NE5048 NE10931	ENES042 ENES043 ENES041 ENE10924	80105600.00 60105600.00 60337468.00 60749352.00
GENE10894 9834995.00 HSA18 GENE5010 9921708.00 HSA18 GENE10895 10235077.00 HSA18 GENE5011 10524170.00 HSA18	- GENE10932 - 263 - GENE5047 - 264 - GENE10936 - 263 	44.00 70.00 83.00	NE10932 NE10936 NE10935 NE10935 NE10935 CFR07 GI CFR07 GI CFR07 GI CFR07 GI CFR07 GI	ENES040 ENES039 ENE10923 ENES038	00/49352.00 60749352.00 60749352.00 60749352.00
GENE10090 10001531.00 HSA18 GENE10897 10784220.00 HSA18 GENE10898 11875282.00 HSA18 GENE5014 12020246.00 HSA18 GENE5014 12020246.00 HSA18	-GENE10930 - 269 -GENE5045 - 270 -GENE10929 - 270 -GENE5044 - 270	06.00 21.00 36.00	NE5045 NE10929 NE5044 NE10928	ENE 10922 ENE5 037 ENE5 036 ENE5 035	61167112.00 64447544.00 64567336.00
GENE12776 12356617.00 HSA18 GENE5015 12385888.00 HSA18 GENE10900 12438412.00 HSA18 GENE10901 12662421 00 HSA18	-GENE10928 - 275 -GENE10927 - 275 -GENE5042 - 275 -GENE5043 - 276	55.00 59.00 63.00 79.00	NE10927 NE5042 NE5043 NE5041	ENES 034 ENES 033 ENES 032 ENES 032	64868804.00 65085852.00 66125576.00 66735784
GENES016 12708302.00 HSA18 GENE10902 12976858.00 HSA18 GENE10909 18032980.00 HSA18 GENE10909 18032980.00 HSA18	-GENE10924 - 28 -GENE5040 - 28 -GENE5039 - 28 -GENE5039 - 28	04.00 12.00 16.00 25.00	NE10924 NE5040 NE5039 NE10923	ENE10912 ENE10911 ENE10910 ENE10910	67180792.00 67244272.00 67494000.00 68465792.00
GENE10910 19025982.00 HSA18 GENE10911 19362034.00 HSA18 GENE10912 19477536.00 HSA18 GENE5029 19964440.00 HSA18	GENE5038 - 284 BAC_382-K9 285 GENE5037 - 286 GENE11904 - 286	42.00 54.00 65.00 69.00	NE5038 C_382-K9 (NE5037 NE11904	ENE5022 ENE10877 ENE10878 ENE10879	69119672.00 69522032.00 69920360.00 70016672.00
GENE5032 20893568.00 HSA18 GENE10915 21473556.00 HSA18 GENE5033 21990048.00 HSA18 GENE5034 22332550.00 HSA18	GENE10922 - 288 GENE10919 - 295 GENE5035 - 296 GENE5036 - 296	80.00 54.00 67.00 86.00	NE10922 CFA07 GI NE10919 NE5035 CFA07 GI NE5036 CFA07 GI	ENE4994 ENE4995 ENE13393 ENE4996	70016672.00 70420472.00 71643544.00 71758032.00
GENE10919 22519516.00 HSA18 GENE5035 22693244.00 HSA18 GENE5036 22776294.00 HSA18 GENE5037 26839612.00 HSA18	GENE5034 - 30 GENE5033 - 30 GENE5032 - 30 GENE10915 - 305	09.00 17.00 31.00 57.00	NE5033 NE5032 NE10915 NE10910	ENE4997 ENE10882 ENE4998 ENE4998	/1900704.00 72064240.00 72064240.00 72291432.00
GENE10922 26921176.00 HSA18 GENE5038 26994028.00 HSA18 GENE10923 27187072.00 HSA18 GENE5039 27307392.00 HSA18 GENE10924 27255555 40 HSA18	GENE10910 - 309 GENE5029 - 311 GENE10912 - 310 GENE10911 - 315	16.00 32.00 51.00	NE5029 NE10912 NE10911 NE10909	ENE10885 ENE5000 ENE5001	72550008.00 72550008.00 72668936.00 72668936.00
GENE5040 27423224.00 HSH18 GENE5041 27688892.00 HSA18 GENE5042 27961944.00 HSA18 GENE5042 27961944.00 HSA18 GENE10927 28044226 00 HCO12		25.00 54.00 68.00 74.00	NE5022 NE10877 NE10878 NE4995	ENE8528 ENE5002 ENE10887 ENE5002	74025072.00 74025072.00 74025072.00 74139296.00 74224056.00
GENE5043 28098446.00 HSA18 GENE10928 28510954.00 HSA18 GENE5044 28969004.00 HSA18 GENE5044 28969004.00 HSA18 GENE10929 29054884.00 HSQ18	GENET995 - 32 GENE10879 - 329 GENE10879 - 333 GENE10896 - 334 GENE10896 - 334	90.00 13.00 40.00 58.00	NE10879 - CFH07 GI NE4994 - CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE10888 ENE10889 ENE10890 ENE5006	74837192.00 75798080.00 76548232.00 76768040.00
GENE5045 29574412.00 HSA18 GENE10930 29789732.00 HSA18 GENE10931 30963884.00 HSA18 GENE5047 31074180.00 HSA18	GENE 10000 - 333 GENE 10882 - 336 GENE 10885 - 336 GENE 10884 - 340 GENE 28528 - 340	68.00 85.00 08.00 35.00	NE10882 NE10885 NE10884 NE8528	ENE5007 ENE10892 ENE5008 ENE10893	77411136.00 77627952.00 77743856.00 77966448.00
GENE10932 31137600.00 HSA18 GENE5048 31169464.00 HSA18 GENE10933 31311638.00 HSA18 GENE10934 31821652.00 HSA18	GENE10887 - 347 GENE10888 - 348 GENE5003 - 349 BAC_375-120 350	71.00 81.00 90.00 01.00	NE10887 NE10888 NE5003 C_375-120	ENE5009 ENE10894 ENE5010 ENE10895	78025440.00 78223184.00 78339760.00 78619832.00
GENE5050 31940464.00 HSA18 GENE10935 32031472.00 HSA18 GENE10936 32650458.00 HSA18 GENE10937 33104394.00 HSA18	GENE5002 - 35: GENE5000 - 35: GENE4998 - 35: GENE4998 - 35:	13.00 24.00 27.00 29.00	NES002 CFR07 GI NES000 NE4998 CFR07 GI NE4996 CFR07 GI CFR07 GI CFR07 GI CFR07 GI	ENE10896 ENE5011 ENE10897 ENE5013	78924200.00 78924200.00 79055696.00 79795384.00
GENESUS1 33994064.00 HSA18 GENE5052 34233520.00 HSA18 GENE10940 41458324.00 HSA18 GENE5056 41570576.00 HSA18	GENE4997 - 353 GENE4999 - 354 GENE5001 - 356 GENE10889 - 359	52.00 43.00 61.00 95.00	NE4999 CFA07 GI NE5001 CFA07 GI NE10889 CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE 10898 ENE 5014 ENE 10899 ENE 5015	00011552.00 80125304.00 80226544.00 80226544.00
GENESUS7 41841056.00 HSA18 GENE5058 42071440.00 HSA18 GENE10943 42282056.00 HSA18 GENE10944 4248848.00 HSA18	GENE10890 - 364 GENE10890 - 364 GENE10890 - 364 GENE10892 - 366	26.00 36.00 46.00 64.00	NE12198 NE10890 NE10892 NE10892 SET STATES S	ENE 12776 ENE 10900 ENE 10901 ENE 5016	00255424.00 80339344.00 80557792.00 80652384.00
GENE5061 42893300.00 HSA18 GENE10946 43648448.00 HSA18 GENE5059 43843452.00 HSA18 GENE10947 44448864.00 HCO19		96.00 05.00 08.00 18.00	NE5009 NE5008 NE5007 NE5010 NE5010	ENES066 ENE10950 ENE5065 ENE10949	81108896.00 81422688.00 81518064.00 81685952.00
GENE5063 44726160.00 HSA18 GENE13825 45050160.00 HSA18 GENE5064 45268656.00 HSA18 GENE10949 45359736.00 HSA18		31.00 44.00 47.00 50.00	NE10894 - CFA07 GI NE10895 - CFA07 GI NE10896 - CFA07 GI CFA07 GI CFA07 GI CFA07 GI CFA07 GI	ENE5064 ENE13825 ENE5063 ENE10947	81769760.00 81903992.00 82206616.00 82358016.00
GENE5065 45575736.00 HSA18 GENE10950 45603852.00 HSA18 GENE5066 46040056.00 HSA18 GENE5066 46040056.00 HSA18 GENE10951 48052144.00 HSA18	GENE10897 - 370 BAC_385-K23 377 GENE10900 - 376 GENE10899 - 380	63.00 76.00 89.00 03.00	NE10897 - CFAX GI C_385-K23 NE10900 - NE10899 - CFAX GI CFA21 GI CFA06 GI CFA20 GI	ENE11789 ENE9473 ENE11904 ENE12198	126874192.00 24327154.00 51578996.00 44339896.00
GENE5067 48125384.00 HSA18 GENE12198 47415216.00 HSA03 GENE5013 825823.00 HSA05	GENE5015 - 38: GENE12776 - 38: GENE10898 - 38: GENE5013 - 38:	14.00 24.00 36.00 49.00	NE10776 NE12776 NE5013 NE5066		
	- GENE5066 - 388 - GENE10902 - 388 - GENE10901 - 389 - GENE5016 - 393	87.00 94.00 18.00 48.00	NE10902 NE10901 NE5016 NE5014		
	GENES014 - 394 GENES065 - 396 GENE10950 - 399 GENE10947 - 399 GENE10947 - 399	84.00 90.00 99.00 03.00	NE5065 NE10950 NE10947 NE13825		
	BAC_381-J6 400 GENE5064 - 400 GENE5064 - 400 GENE5063 400	06.00 13.00 24.00 41.00	C_381-J6 NE5064 NE10949 NE5063		
	-GENE10951 - 403 -GENE5067 - 403	72.00 76.00	NE10951 NE5067		

RH MAP CFA08

ENE3213 70086896.00 HSA10 ENE11081 16617961.00 HSA19 ENE6223 117757952.00 HSA01	GENE3213 - 	0.00 16.00 35.00	- GENE3213	CFA17 GENE6223 58070220.00 CFA08 GENE586 3128258.00 CFA08 GENE11992 3239169.00
ENE586 244438864.00 HSA01 ENE11992 244544096.00 HSA01 ENE587 244641328.00 HSA01	GENE587 - GENE10035 - GENE10183 -	51.00 79.00 91.00	- GENE587 GENE10035 0	CFA08 GENE3213 3321902.00 CFA08 GENE587 3449033.00 CFA08 GENE10035 3790382.00
ENE3877 68254048.00 HSA12	GENE11081 -	101.00	-GENE11081	CFA08 GENE10183 3901204.00
ENE13228 74644824.00 HSA12	GENE4297 -	104.00		CFA08 GENE11081 4009930.00
ENE4158 16636384.00 HSA14	GENE13254 -	119.00		CFA08 GENE4297 4073939.00
ENE4160 17093094.00 HSA14 ENE4164 17784430.00 HSA14 ENE10035 18518274.00 HSA14	BAC_382-E10 	139.00 147.00 167.00	BAC_382-E10 -GENE4298 -GENE4299 -GENE4299	CFA08 GENE13254 4089819.00 CFA08 GENE4298 4261487.00 CFA08 GENE4299 4390023.00
ENE12706 20839000.00 HSA14	GENE4302 -	190.00	-GENE4302	CFA08 GENE10187 4809961.00
ENE10045 21008360.00 HSA14	GENE10188 -	197.00		CFA08 GENE10188 4948383.00
ENE10046 21272214.00 HSA14	GENE10187 -	205.00		CFA08 GENE4302 5002450.00
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ENE4162 21642148.00 HSA14	GENE4158 -	309.00		CFA08 GENE4158 5747601.00
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ENE10050 21876134.00 HSA14 ENE12708 22010560.00 HSA14 ENE4165 22104484.00 HSA14		325.00 328.00 332.00	-GENE10045	CFA08 GENE10046 6025188.00 CFA08 GENE10047 6086116.00 CFA08 GENE4160 6086116.00
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ENE10057 23433412.00 HSA14	GENE4166 -	379.00	- GENE4166	CFA08 GENE4166 6935439.00
ENE4180 28691880.00 HSA14	GENE10054 -	399.00		CFA08 GENE10054 7096759.00
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ENE4175 29607684.00 HSA14	GENE6223 -	640.00	-GENE6223	CFA08 GENE4173 12991935.00
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ENE4185 34284920.00 HSA14	GENE4179 -	825.00	-GENE4179	CFA08 GENE4180 16105328.00
ENE10072 34772020.00 HSA14	GENE4180 -	832.00		CFA08 GENE10067 16256178.00
ENE10073 35116316.00 HSA14	GENE4181 -	840.00		CFA08 GENE10069 16669148.00
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ENE100/5 36/11884.00 HSH14 ENE4190 3759366.00 HSA14 ENE10077 37636640.00 HSA14	GENE+105 - GENE+105 - GENE+184 - BOC 254 111	918.00 947.00 969.00	-GENE4185 -GENE4184 -GENE13238	CFH08 GENE4185 1/392364.00 CFA08 GENE10072 17744684.00 CFA08 GENE10073 18125458.00
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ENE4196 45109672.00 HSA14	GENE4190 -	1132.00	-GENE4190	CFA08 GENE10079 24821268.00
ENE4206 46267504.00 HSA14	GENE4191 -	1144.00		CFA08 GENE4193 25244876.00
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ENE10085 48402608.00 HSA14	GENE10079 -	1257.00	-GENE10079	CFA08 GENE10082 25477624.00
ENE4199 48449276.00 HSA14	GENE4195 -	1279.00	-GENE4195	CFA08 GENE10082 25477624.00
ENE10086 48564992.00 HSA14	GENE10080 -	1288.00	-GENE10080	CFA08 GENE4197 29045618.00
ENE4200 48574220.00 HSA14	GENE4193 -	1297.00		CFA08 GENE4198 29300904.00
ENE10087 48734836.00 HSA14	GENE10082 -	1309.00		CFA08 GENE4198 29300904.00
ENE10088 48883652.00 HSA14	BAC_380-D2	1333.00	BAC_380-D2	CFA08 GENE4199 29405200.00
ENE4202 49044472.00 HSA14	GENE4196 -	1360.00	-GENE4196	CFA08 GENE10086 29504328.00
ENE10089 49100616.00 HSA14	GENE12712 -	1383.00	-GENE12712 ->	CFA08 GENE10086 29504328.00
ENE4203 49213772.00 HSA14 ENE10090 49371368.00 HSA14 ENE4204 49442176.00 HSA14	GENE12712 - GENE12710 - GENE4206 - BOC 385-102	1397.00 1412.00 1425.00	-GENE12710 -GENE4206 BAC_385-J23	CFA08 GENE10087 29609072.00 CFA08 GENE10088 29727050.00 CFA08 GENE10089 29887998.00
ENE10091 49705968.00 HSA14 ENE4205 49945288.00 HSA14 ENE12710 50461624.00 HSA14	GENE12711 - GENE12711 - GENE1205 - GENE10090	1436.00 1447.00 1458.00	-GENE12711 -GENE4205 -GENE10090	CFA08 GENE4202 29887998.00 CFA08 GENE4203 30039662.00 CFA08 GENE10090 30145222 00
ENE12711 50926784.00 HSA14	GENE10091 -	1463.00	-GENE10091	CFA08 GENE10091 30354410.00
ENE12712 51167976.00 HSA14	GENE10091 -	1468.00	-GENE4204	CFA08 GENE4204 30354410.00
ENE12714 51518908.00 HSA14	GENE3877	1489.00	-GENE3877	CFA08 GENE3877 30354410.00
ENE10097 51610928.00 HSA14	GENE10087 -	1501.00	-GENE10087	CFA08 GENE4205 30670150.00
ENE13241 52406008.00 HSA14	GENE10086 -	1512.00	-GENE10086	CFA08 GENE12710 30997156.00
ENE10098 52883608.00 HSA14	GENE4198	1527.00	-GENE4198	CFA08 GENE4206 30997156.00
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ENE10101 53499708.00 HSA14	GENE10089 -	1612.00	-GENE10089	CFA08 GENE10097 32262100.00
ENE10102 53598332.00 HSA14	GENE4199 -	1623.00	-GENE4199	CFA08 GENE13241 32895024.00
ENE4225 53743820.00 HSA14 ENE10103 53808120.00 HSA14 ENE10104 54122180.00 HSA14	GENE4200 - GENE4202 - GENE4202 - GENE4208 -	1626.00 1637.00 1665.00	-GENE4200 -GENE4202 -GENE4208	CFA08 GENE10098 33261452.00 CFA08 GENE10099 33330492.00 CFA08 GENE12715 33330492.00
ENE4218 54754656.00 HSA14	GENE10097 -	1676.00	-GENE10097	CFA08 GENE10100 33541532.00
ENE10105 55081848.00 HSA14	GENE12714 -	1685.00		CFA08 GENE13242 33726944.00
ENE4219 55661972.00 HSA14	GENE13241 -	1710.00		CFA08 GENE10101 33790904.00
ENE10106 55738660.00 HSA14	GENE10099 -	1741.00	- GENE10099	CFA08 GENE10102 33942896.00
ENE4220 55869012.00 HSA14	GENE10104 -	1750.00		CFA08 GENE10103 34137300.00
ENE10107 55937544.00 HSA14	GENE10102 -	1756.00		CFA08 GENE10104 34332348.00
ENE4221 56020660.00 HSA14	GENE10103 -	1758.00	- GENE10103	CFA08 GENE4218 34966848.00
ENE10108 56595420.00 HSA14	GENE13242 -	1764.00	- GENE13242	CFA08 GENE10105 35242468.00
ENE4222 56714280.00 HSA14	GENE12715 -	1769.00	- GENE12715	CFA08 GENE10106 35761692.00
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ENE10113 5868304.00 HSA14	GENE10107 -	1821.00		CFR08 GENE10109 36574924.00
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ENE10116 59435600.00 HSA14	GENE4220 -	1832.00	-GENE4220	CFA08 GENE13243 37485084.00
ENE4230 59498740.00 HSA14	BAC 380-L14	1837.00	BAC 380-L14	CFA08 GENE4225 37729360.00
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ENET270 6373707.00 HSH17 ENET239 64017676.00 HSA14 ENET255 65475936.00 HSA14	GENE10113 - GENE10113 - GENE4227 - GENE4230 -	1992.00 2005.00 2021.00	-GENE10113 -GENE4227 -GENE4227	CFA08 GENE4233 40836720.00 CFA08 GENE4233 40836720.00 CFA08 GENE4235 41498908.00
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ENE10131 66246052.00 HSA14	GENE4236 -	2083.00		CFA08 GENE4242 44176384.00
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	~GENE4334 -	5723.00	SENETOT -	

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GENE3059 GENE3060 GENE3060 GENE8957 GENE8958 GENE8960 GENE3060 GENE3069 GENE3069 GENE3071 GENE3071 GENE3072 GENE3073 GENE3073 GENE3073 GENE3073 GENE3073 GENE3073 GENE3073 GENE3073 GENE3078 GENE3078 GENE3080 GENE3080 GENE3082 GENE3083 GENE3083	124828832.00 HSH 09 124943120.00 HSA 09 125190496.00 HSA 09 125225552.00 HSA 09 125593344.00 HSA 09 126028496.00 HSA 09 126493304.00 HSA 09 126493304.00 HSA 09 126493304.00 HSA 09 127458232.00 HSA 09 127458232.00 HSA 09 127458232.00 HSA 09 127641904.00 HSA 09 127857520.00 HSA 09 128364168.00 HSA 09 128366468.00 HSA 09 128366864.00 HSA 09 128366864.00 HSA 09 1283668664.00 HSA 09 129365888.00 HSA 09 129660920.00 HSA 09 130228792.00 HSA 09 130349072.00 HSA 09 130349072.00 HSA 09	GENE12880 - GENE3101 - GENE3101 - GENE3100 - GENE3100 - GENE3098 - GENE8996 - GENE8997 - GENE8997 - GENE8993 - GENE8993 - GENE8993 - GENE3090 - GENE3093 - GENE3093 - GENE3093 - GENE3094 - GENE3094 - GENE3086 - GENE3088 - GENE3088 - GENE3088 - GENE3088 - GENE3088 - GENE3089 - GENE3088 -	5357.00 5363.00 5393.00 5400.00 5409.00 5415.00 5415.00 5415.00 5421.00 5430.00 5439.00 5459.00 5454.00 5459.00 5454.00 5459.00 5474.00 5525.00 5588.00 5611.00 5622.00 5633.00 5635.00 5635.00 5635.00	-GENE128800 -GENE3101 -GENE3099 -GENE3099 -GENE3098 -GENE3995 -GENE8995 -GENE8997 -GENE8997 -GENE8993 -GENE3090 -GENE3093 -GENE3093 -GENE3093 -GENE3093 -GENE3093 -GENE3093 -GENE3093 -GENE3094 -GENE3088 -GENE3089	CFA09 GENE8989 CFA09 GENE12676 CFA09 GENE3093 CFA09 GENE3094 CFA09 GENE3094 CFA09 GENE3094 CFA09 GENE3094 CFA09 GENE3096 CFA09 GENE3089 CFA09 GENE3088 CFA09 GENE3085 CFA09 GENE3083 CFA09 GENE3078 CFA09 GENE3078<	42704968.00 42842736.00 43389536.00 43389536.00 43389536.00 43673320.00 43790824.00 43838084.00 43910312.00 43910312.00 43961280.00 44051408.00 44051408.00 44051408.00 44232232.00 44330288.00 44545212.00 44589344.00 4559344.00 45190344.00 45248068.00 45472172.00 45846288.00 46193624.00
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RH MAP CFA10

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GENE3858 56144660.00 HSA12 GENE13665 56288432.00 HSA12 GENE9748 56426548.00 HSA12	GENE3858 - GENE13665 - GENE13666 -	211.00 232.00 244.00	- GENE3858 CF - GENE13665 CF - GENE13666 CF	A10 GENE9746 4344471.00 A10 GENE3858 4653976.00 A10 GENE13665 4750769.00
GENE13666 56487728.00 HSA12 GENE9749 56636856.00 HSA12 GENE3852 56741792.00 HSA12	GENE 10032 - GENE 9748 - GENE 9748 - GENE 9749 -	253.00 260.00 267.00	- GENE10032 - CF - GENE9748 - CF - GENE9749 - CF	A10 GENE9748 4876169.00 A10 GENE13666 4927182.00 A10 GENE9749 5146915.00
GENE3856 57542300.00 HSA12 GENE3861 57551456.00 HSA12 GENE3857 57646988.00 HSA12	GENE3861 - GENE1987 - GENE1987 - GENE13667 -	310.00 355.00 392.00	- GENE3861 CF - GENE1987 CF - GENE13667 CF	A10 GENE3861 5776404.00 A10 GENE1987 8087755.00 A10 GENE13667 8627371.00
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GENE3871 65134976.00 HSA12 GENE13226 65977220.00 HSA12 GENE3872 66199540.00 HSA12	GENE 13226 - GENE3872 - GENE9872 -	629.00 641.00 646.00	- GENE 13226 CF - GENE 3872 CF - GENE 9762 CF	H10 GENE13226 12780453.00 GENE3872 12956382.00 GENE9761 13496791.00
GENE 9761 66839356.00 HSH12 GENE 13672 66930840.00 HSA12 GENE 9762 67004720.00 HSA12	GENE 9761 	665.00 674.00 683.00	- GENE 3761 CF - GENE 13672 CF - GENE 13673 CF	H10 GENE9762 13585621.00 A10 GENE13672 13585621.00 A10 GENE3874 13866975.00
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GENE9764 67936640.00 HSH12 GENE9765 68070192.00 HSA12 GENE9766 68376176.00 HSA12	GENE9764 - GENE9765 - GENE9766 -	812.00 826.00	- GENE 9764 CF - GENE 9765 CF - GENE 9766 CF	H10 GENE9764 14356384.00 A10 GENE9765 14433201.00 A10 GENE9766 14704654.00
GENE9767 68616160.00 HSA12 GENE3879 69007912.00 HSA12 GENE9768 69080200.00 HSA12	GENE9767 - GENE3879 - GENE7215 -	835.00 855.00 878.00	-GENE9767 CF -GENE3879 CF -GENE7215 CF	A10 GENE9767 14880345.00 A10 GENE3879 15233442.00 A10 GENE9768 15279398.00
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GENE3882 70294216.00 HSH12 GENE9771 70353840.00 HSA12 GENE9771 70564832.00 HSA12	GENE 13227 - GENE 3882 - GENE 3884 -	924.00 940.00 982.00	-GENE13227 CF -GENE3882 CF -GENE3884 CF	H10 GENE9771 16261417.00 A10 GENE7617 16261417.00 A10 GENE3882 16261417.00
GENE3884 70641664.00 HSA12 GENE9773 71343984.00 HSA12 GENE3883 72100592.00 HSA12	GENE 13674 - GENE 9768 - GENE 9768 - GENE 3881 -	1026.00 1035.00 1045.00	-GENE13674 CF -GENE9768 CF -GENE3881 CF	H10 GENE3883 16422237.00 A10 GENE13227 16509488.00 A10 GENE3884 16509488.00
GENE3885 73221296.00 HSA12 GENE9775 74042608.00 HSA12 GENE13698 103201136.00 HSA12		1073.00 1097.00 1103.00	-GENE9773 CF BAC_381-A8 CF -GENE3885 CF	A10 GENE9773 17234040.00 A10 GENE3885 18441188.00 A10 GENE9775 18985636.00
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GENE9826 105206952.00 HSA12 GENE13702 105328488.00 HSA12 GENE9827 105606720.00 HSA12	-GENE5688 - -GENE13452 - -GENE11573 -	1250.00 1263.00 1272.00	-GENE5688 CF -GENE13452 CF -GENE11573 CF	A10 GENE5685 20309434.00 A10 GENE11569 20507956.00 A10 GENE5683 22454732.00
GENE13703 105873248.00 HSA12 GENE9829 106555128.00 HSA12 GENE13704 106628400.00 HSA12	GENE11568 - GENE11565 -	1284.00 1295.00 1309.00	-GENE11568	H10 GENE11568 22539364.00 A10 GENE11567 22725172.00 A10 GENE11566 22903542.00
GENE5631 31207194.00 HSA22	GENE13448 - GENE5678 - GENE5678 - GENE96 -	1315.00 1318.00 1321.00	-GENE5678	H10 GENE13450 22948508.00 A10 GENE11565 23050420.00 A10 GENE5680 23106384.00
GENE11516 31521738.00 HSA22 GENE5632 32102176.00 HSA22 GENE11517 32458154.00 HSA22	-GENE11558 - 	1333.00 1341.00 1350.00	-GENE5674 CF	H10 GENE5679 23650552.00 A10 GENE13448 23835616.00 A10 GENE5678 23835616.00
GENE5635 32580652.00 HSA22 GENE5636 32757224.00 HSA22 GENE5633 33802780.00 HSA22		1356.00 1374.00 1391.00	-GENE5672 CF	H10 GENE96 24014642.00 A10 GENE11561 24217568.00 A10 GENE5675 24702136.00
GENE5640 33932752.00 HSA22 GENE11518 34006280.00 HSA22 GENE11519 34130744.00 HSA22		1407.00 1421.00 1425.00	-GENE11567 CF	H10 GENE5674 24835744.00 A10 GENE11558 24937096.00 A10 GENE5673 24972416.00
GENE13437 34219328.00 HSA22 GENE11520 34284768.00 HSA22 GENE13438 34397324.00 HSA22	-GENE11566 - -GENE11561 - -GENE5683 -	1434.00 1449.00 1485.00	-GENE11566 CF -GENE11561 CF -GENE5683 CF	H10 GENE5672 25149660.00 A10 GENE11557 25149660.00 A10 GENE11556 25286478.00
GENE11521 34424924.00 HSA22 GENE5644 34669320.00 HSA22 GENE5637 34816900.00 HSA22	GENE11547 - GENE11532 - GENE11531 -	1517.00 1543.00 1555.00	-GENE11547 -GENE11532 -GENE11531	A10 GENE5671 25506652.00 CA10 GENE11555 25559132.00 CA10 GENE5670 25559132.00
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GENE11532 36932196.00 HSA22 GENE5648 37120240.00 HSA22 GENE11533 37133524.00 HSA22	GENE5663 - GENE5660 - BAC_376-D1	1663.00 1673.00 1676.00	-GENE5663 -GENE5660 BAC_376-D1	A10 GENE11548 26725448.00 A10 GENE5663 26788636.00 A10 GENE11547 26871844.00
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GENE11541 39049108.00 HSA22 GENE11542 39319768.00 HSA22 GENE11542 39433208 00 HSA22	GENE5667 - GENE11544 - GENE11542 -	1833.00 1861.00 1891.00	-GENE5667 -GENE11544 -GENE11542	A10 GENE5655 28274928.00 A10 GENE11539 28348208.00
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GENE5679 42534088.00 HSR22 GENE11558 42543232.00 HSR22 GENE5674 42644344.00 HSR22	GENE 11518 - GENE 11519 - GENE 13437 -	2156.00 2172.00 2181.00	-GENE 11518 CF -GENE 11519 CF -GENE 13437 CF	H10 GENES635 31798784.00 'A10 GENE11519 31878152.00 'A10 GENE11518 32037224.00
GENES675 42844624.00 HSR22 GENE11561 43555176.00 HSR22 GENE5683 43724792.00 HSR22	GENES635 - GENE11520 - GENES636 -	2187.00 2196.00 2209.00	-GENES635 CF -GENE11520 CF -GENE5636 CF	H10 GENES633 32162716.00 'A10 GENE11517 33218818.00 'A10 GENE5632 33508948.00
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GENE7265 184075856.00 HSA03 GENE12020 43520620.00 HSA02	GENE13701 - GENE9822 - GENE13699 -	2501.00 2504.00 2510.00	-GENE9822 CF -GENE13699 CF -GENE13702 CF	A10 GENE8625 37541780.00 A10 GENE8625 37541780.00 A10 GENE795 37541780.00
GENE6579 43903772.00 HSH02 GENE6580 44002832.00 HSA02 GENE674 44105520 00 HSA02	GENE13702 - GENE9825 - GENE9827 -	2521.00 2528.00 2532.00	-GENE9825 CF -GENE9827 -GENE13700 CF	A10 GENE6700 37731928.00 A10 GENE12929 38392744.00
GENE6581 44402656.00 HSH02 GENE675 44487228.00 HSA02 GENE675 44487228.00 HSA02	-GENE13700 - -GENE12061 - -GENE9826 -	2535.00 2539.00 2554.00	-GENE12061 CF	A10 GENE792 38765220.00 A10 GENE791 39157692.00 A10 GENE6696
GENE6583 45206940.00 HSH02 GENE677 45389144.00 HSA02 GENE678 46044552.00 HSA02	GENE 13690 - 	2561.00 2576.00 2586.00	-GENE12929	A10 GENE790 40328528.00 A10 GENE6694 40832596.00 A10 GENE6693 41406194 00
GENE679 46737236.00 HSA02 GENE680 46816544.00 HSA02 GENE12022 47159928.00 HSA02	GENE6696 - GENE791 -	2593.00 2596.00 2612.00	-GENE6696	A10 GENE6692 41880028.00 A10 GENE6691 42378088.00 A10 GENE784 42378088.00
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GENE685 48716032.00 HSA02 GENE686 49164164.00 HSA02 GENE688 53894520.00 HSA02	-GENE6690 - -GENE12928 - -GENE783 -	2755.00 2762.00 2782.00	-GENE6690 CF -GENE12928 CF -GENE783 CF	A10 GENE6686 44229320.00 A10 GENE6685 44334392.00 A10 GENE778 44837732.00
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GENE6598 54826080.00 HSA02 GENE692 55065408.00 HSA02 GENE6599 55129080.00 HSA02	-GENE6681 - -GENE12057 - -GENE12056 -	2833.00 2837.00 2841.00	-GENE6681 -GENE12057 -GENE12056	A10 GENE12054 45515760.00 A10 GENE6681 45650668.00 A10 GENE6680 46137832.00
GENE12024 55563272.00 HSA02 GENE695 55799916.00 HSA02 GENE696 56394192.00 HSA02	-GENE6686 - -GENE6685 - -GENE6685 -	2852.00 2863.00 2878.00	-GENE6686 CF -GENE6685 CF -GENE6684 CF	A10 GENE12053 46460000.00 A10 GENE6679 46614632.00 A10 GENE772 46713772.00
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GENE6605 60652832.00 HSA02 GENE699 60961068.00 HSA02 GENE12026 61145816.00 HSA02	-GENE772 - -GENE771 - BAC_376-B9	2939.00 2952.00 2970.00	-GENE771 -GENE771 BAC_376-B9 CF	H10 GENE770 47209336.00 A10 GENE6675 47555068.00 A10 GENE12051 47741700.00
GENE701 61278400.00 HSA02 GENE6608 61389040.00 HSA02 GENE6609 62027688.00 HSA02	-GENE12053 - -GENE6679 - -GENE6675 -	2990.00 3004.00 3010.00	-GENE12053 -GENE6679 -GENE6675	A10 GENE12050 48055956.00 A10 GENE12049 48271656.00 A10 GENE6671 48434816.00
GENE12029 63027288.00 HSA02 GENE12906 64387168.00 HSA02 GENE12907 64834532.00 HSA02	-GENE12052 - -GENE6671 - -GENE12049 -	3017.00 3038.00 3045.00	-GENE12052	A10 GENE12020 49090692.00 A10 GENE12021 49282792.00 A10 GENE6579 49447260.00
GENE708 65217020.00 HSA02 GENE12908 65287492.00 HSA02 GENE710 65804076.00 HSA02	GENE12050 - GENE12051 - GENE12926 -	3048.00 3055.00 3059.00	-GENE 12050 CF	H10 GENE6580 49510208.00 A10 GENE674 49627780.00 A10 GENE6581 49933968.00
GENE12032 67606584.00 HSA02 GENE711 67810632.00 HSA02 GENE6618 67995712.00 HSA02	GENE770 - -GENE6680 - -GENE12020 -	3062.00 3088.00 3141.00	-GENE770 -GENE6680 -GENE12020 CF	H10 GENE6582 50027208.00 A10 GENE675 50027208.00 A10 GENE6583 50640560.00
GENE6620 68581968.00 HSA02 GENE6620 68581968.00 HSA02 GENE6622 69066088.00 HSA02	GENE12021 - GENE6579 - GENE6574 -	3156.00 3178.00 3203.00	-GENE6579 -GENE6574 -GENE674 CENE6520	H10 GENE677 50840624.00 A10 GENE678 51436588.00 A10 GENE679 51999980.00
GENE12909 70043936.00 HSA02	-GENE6580 - -GENE7265 - -GENE6581 -	3228.00 3246.00 3253.00	-GENE7265 -GENE6581 CENE6581	H10 GENE680 52122872.00 A10 GENE12022 52402920.00 A10 GENE681 52498088.00
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GENE721 70417848.00 HSA02 GENE722 70657976.00 HSA02 GENE12035 71036104.00 HSA02	GENE677 - GENE679 - GENE678 -	3355.00 3369.00	-GENE679 -GENE678 CENE628	H10 GENE12023 53104272.00 A10 GENE6591 53505364.00 A10 GENE685 53638172.00
GENE6671 96960816.00 HSA02		3393.00 3397.00	-GENE6589 -GENE681 CENE682	H10 GENE686 54018080.00 A10 GENE688 58056264.00 A10 GENE689 58269960.00
GENE12049 97884736.00 HSA02 GENE12050 97993984.00 HSA02 GENE772 98353432.00 HSA02	GENE682 - GENE12022 - GENE12022 - GENE683 -	3436.00 3453.00	-GENE12022 -GENE12022 -GENE683 CFNE12022 CF	H10 GENE6597 58682964.00 A10 GENE691 58790776.00 A10 GENE6598 58892136.00
GENE12051 98357360.00 HSA02 GENE6675 98634080.00 HSA02 GENE770 98963584.00 HSA02	GENE12023 - GENE6591 - GENE6591 - GENE685 -	3459.00 3459.00 3466.00	-GENE6591 -GENE685 CENE685 CENE685	H10 GENE692 59171904.00 A10 GENE6599 59171904.00 A10 GENE12024 59593136.00
GENE12020 99084448.00 HSA02 GENE771 99399936.00 HSA02 GENE12052 99530400.00 HSA02		3591.00 3607.00	-GENE688 -GENE6598 -GENE689	ALO GENE695 59889760.00 ALO GENE696 60335796.00 ALO GENE697 61696572.00 DIO GENE697 61696572.00
GENE120579 99570400.00 HSA02 GENE12053 99661904.00 HSA02 GENE6680 100073440.00 HSA02	-GENE689 - -GENE6597 - BAC_382-M13	3636.00 3641.00	-GENE6597 CF BAC_382-M13 -GENE691 CF	A10 GENE0804 61986464.00 A10 GENE12025 62487400.00 A10 GENE6605 63968036.00
GENE6681 100630320.00 HSH02 GENE12054 100807232.00 HSR02 GENE12054 101807232.00 HSR02	GENE691	3687.00 3695.00 3704.00	-GENE692 -GENE12024 -GENE6599	CENESS 64249120.00 CA10 GENE12026 64425208.00 CA10 GENE701 64530380.00 CA10 GENE6608 64210510
GENE777 101495432.00 HSH02 GENE6684 101523640.00 HSA02	GENE6599	3727.00 3739.00 3760.00	-GENE695 -GENE696 BAC_372-019	A10 GENE6609 65140136.00 A10 GENE12029 66048056.00 A10 GENE12029 66048056.00
CENEGGOE 400400000 CONTRACTOR	GENE697 -	3786.00 3804.00	-GENE697 - CF	A10 GENE12906 67292672.00 A10 GENE12907 67583528.00 A10 GENE708 67891048.00
GENE6685 102109200.00 HSA 02 GENE6686 102265392.00 HSA 02 GENE12056 102414128.00 HSA 02		0004 11	CENE 10 AOE	100 100 00 00 00 00 00 00 00 00 00 00 00
GENE6685 102109200.00 HSA 02 GENE6686 102265392.00 HSA 02 GENE12056 102414128.00 HSA 02 GENE12927 102426672.00 HSA 02 GENE12057 102624264.00 HSA 02 GENE12928 102921848.00 HSA 02	GENE56004 - -GENE12025 - -GENE6605 - -GENE12026 -	3821.00 3839.00 3844.00	-GENE12025 - CF -GENE6605 - CF -GENE12026 - CF CF	H10 GENE12908 67940064.00 A10 GENE12836 68069672.00 A10 GENE710 68402112.00



RH MAP CFA11

GENE6796 175569216.00HSA02 GENE3782 29365704.00HSA12 GENE3890 75748544.00HSA12	GENE12452 - GENE1997 - GENE7897 -	0.00 2.00 9.00	GENE 1245: GENE 1997 GENE 7897	2	CFA15 CFA27 CFA11	GENE3890 GENE3782 GENE12409	22688316.00 21621952.00 3018420.00
GENE11256 30009656.00 HSAX GENE5904 150941856.00 HSAX GENE7748 112936120.00 HSA05 GENE1850 113002640.00 HSA05	-GENE7895 - -GENE12451 - -GENE7894 - -GENE1995 -	34.00 41.00 50.00 59.00	- GENE7895 - GENE1245 - GENE7894 - GENE1995		CFA11 CFA11 CFA11 CFA11	GENE1858 GENE7756 GENE1857 GENE7755	3151607.00 3270349.00 3497424.00 3637606.00
GENE7749 113879400.00 HSA05 GENE1851 114548824.00 HSA05 GENE7750 114628352.00 HSA05	-GENE7893 - -GENE12450 - -GENE7892 - -GENE7892 -	69.00 82.00 92.00	- GENE7893 - GENE1245 - GENE7892		CFA11 CFA11 CFA11	GENE5904 GENE1856 GENE7753	4417028.00 5805112.00 6183605.00
GENE1852 114679064.00 HSA05 GENE7751 114937024.00 HSA05 GENE1853 115027712.00 HSA05 GENE7752 115222832.00 HSA05	-GENE7891 - -GENE7890 - -GENE1993 - -GENE1991 -	109.00 128.00 150.00 164.00	- GENE7891 - GENE7890 - GENE1993 - GENE1991		CFA11 CFA11 CFA11 CFA11	GENE1854 GENE1855 GENE7754 GENE7752	6183605.00 6183605.00 6183605.00 6523730.00
GENE1854 115249416.00 HSA05 GENE7753 115314704.00 HSA05 GENE1855 115410720.00 HSA05	- GENE1990 - - GENE7889 - - GENE7886 -	172.00 178.00 180.00	-GENE1990 -GENE7889 -GENE7886		CFA11 CFA11 CFA11	GENE1853 GENE7751 GENE1852	6631756.00 6735909.00 6979567.00
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GENE1857 118560544.00 HSA05 GENE7756 118804696.00 HSA05 GENE1858 118948192.00 HSA05 GENE1859 119758224.00 HSA05	-GENE7768 - BAC_372-C10 GENE3890 -	226.00 236.00 239.00 281.00	- GENE7748 BAC_372-0 - GENE3890	C10	CFA11 CFA11 CFA11 CFA11	GENE1850 GENE7748 GENE1988 GENE7887	8349694.00 8437894.00 8567758.00 8611548.00
GENE12409 121264072.00 HSA05 GENE7759 121541160.00 HSA05 GENE1860 121800208.00 HSA05	GENE3782 - - 	302.00 350.00 387.00	- GENE3782 - GENE1850 BAC_373-0	68	CFA11 CFA11 CFA11	GENE7888 GENE6796 GENE7886	9086340.00 9086340.00 9221277.00
GENE1861 121890928.00 HSA05 GENE7760 122236984.00 HSA05 GENE12411 122591768.00 HSA05 GENE12411 122591768.00 HSA05	GENE7749 - GENE1851 - GENE1852 - GENE7751 -	389.00 407.00 423.00 431.00	- GENE7749 - GENE1851 - GENE1852 - GENE7751		CFA11 CFA11 CFA11	GENE1991 GENE1990 GENE7889	9326088.00 9326088.00 9326088.00
GENE1864 122986792.00 HSA05 GENE7763 124058336.00 HSA05 GENE7764 125986632.00 HSA05	GENE7752 - GENE7750 - GENE1853 -	440.00 446.00 448.00	-GENE7751 -GENE7750 -GENE1853		CFA11 CFA11 CFA11	GENE7891 GENE1993 GENE7892	9999031.00 10038074.00 10131612.00
GENE1866 126015152.00 HSA05 GENE7765 126222552.00 HSA05 GENE1867 126288864.00 HSA05	GENE7753 - GENE1854 - GENE1855 -	454.00 457.00 463.00	- GENE7753 - GENE1854 - GENE1855		CFA11 CFA11 CFA11	GENE12450 GENE7893 GENE1995	10239768.00 10388174.00 10507849.00
GENE7766 126470512.00 HSA05 GENE1868 126852544.00 HSA05 GENE7767 126936088.00 HSA05 GENE1869 127474848.00 HSA05	GENE7754 - GENE1856 - GENE5904 - GENE7756 -	472.00 481.00 508.00 533.00	- GENE 7754 - GENE 1856 - GENE 5904 - GENE 7756		CFA11 CFA11 CFA11 CFA11	GENE7894 GENE12451 GENE7895 GENE1859	10610656.00 10749654.00 10987891.00 11652076.00
GENE1870 127550160.00 HSA05 GENE7769 127711760.00 HSA05 GENE7770 128518776.00 HSA05	GENE1857 - GENE1858 - GENE12409 -	539.00 542.00 563.00	-GENE1857 -GENE1858 -GENE1240		CFA11 CFA11 CFA11	GENE7759 GENE1860 GENE1861	13448275.00 13448275.00 13750489.00
GENE1872 128920320.00 HSA05 GENE7771 130611024.00 HSA05 GENE1873 130798448.00 HSA05	-GENE7755 - -GENE1859 - BAC_382-019	575.00 590.00 600.00	- GENE7755 - GENE1859 BAC_382-1	019	CFA11 CFA11 CFA11	GENE11256 GENE7760 GENE1863	13872512.00 14013391.00 14318589.00
GENE1874 131115784.00 HSH05 GENE7773 131394912.00 HSA05 GENE7774 131675832.00 HSA05 GENE1876 131746544.00 HSA05	GENE1759 - GENE1860 - GENE1861 - GENE11256 -	622.00 625.00 634.00 650.00	-GENE1860 -GENE1861 -GENE1861		CFA11 CFA11 CFA11 CFA11	GENE12411 GENE1864 GENE7763 GENE7764	143/1537.00 14805667.00 15515312.00 17216052.00
GENE7775 131799984.00 HSA05 GENE1875 131856720.00 HSA05 GENE12414 131953336.00 HSA05		663.00 672.00 680.00	- GENE7760 - GENE1863 - GENE1241		CFA11 CFA11 CFA11	GENE 1866 GENE 7765 GENE 1867	17305946.00 17522492.00 17522492.00
GENE12415 131999368.00 HSA05 GENE1879 132177048.00 HSA05 GENE1881 132488432.00 HSA05	-GENE1864 - -GENE7763 - -GENE7764 - -GENE1966	686.00 721.00 738.00	- GENE1864 - GENE7763 - GENE7764 - CENE1866		CFA11 CFA11 CFA11	GENE7766 GENE1868 GENE7767	17522492.00 17928660.00 18083184.00
GENE1780 132728084.00 HSH05 GENE1883 133557856.00 HSA05 GENE7782 133609240.00 HSA05 GENE7783 133783088.00 HSA05		749.00 752.00 763.00	-GENE1066 -GENE7765 -GENE1867 -GENE7766		CFA11 CFA11 CFA11 CFA11	GENE1889 GENE1870 GENE7769 GENE7770	18063104.00 18569756.00 18782712.00 19391312.00
GENE7784 133984264.00 HSA05 GENE1886 134136832.00 HSA05 GENE7785 134196224.00 HSA05	GENE7767 - GENE1868 - GENE1869 -	781.00 790.00 793.00	- GENE7767 - GENE1868 - GENE1869		CFA11 CFA11 CFA11	GENE1872 GENE7771 GENE1873	19665870.00 20899328.00 21107752.00
GENE1885 134289328.00 HSA05 GENE1888 134441568.00 HSA05 GENE7787 134585552.00 HSA05 GENE1889 134757260 00 HSA05		801.00 804.00 824.00 830.00	- GENE7769 - GENE1870 - GENE7770 - GENE1872		CFA11 CFA11 CFA11 CFA11	GENE1874 GENE7773 GENE1875 CENE2275	21325616.00 21657194.00 21804152.00
GENE7788 134945200.00 HSA05 GENE1890 134982384.00 HSA05 GENE7789 135262016.00 HSA05	BAC_335-C1 GENE7771 - GENE1873 -	846.00 867.00 874.00	BAC_385- - GENE7771 - GENE1873		CFA11 CFA11 CFA11 CFA11	GENE1876 GENE7774 GENE12414	21990584.00 21990584.00 22182000.00
GENE1891 135348400.00 HSA05 GENE7790 135458064.00 HSA05 GENE12418 135767952.00 HSA05	GENE1874 - GENE1875 - GENE7773 -	891.00 901.00 904.00	- GENE1874 - GENE1875 - GENE7773		CFA11 CFA11 CFA11	GENE12415 GENE1879 GENE1881	22269740.00 22416456.00 22701202.00
GENE 1095 137495296.00 HSA05 GENE 1894 137876832.00 HSA05 GENE 7796 137919680.00 HSA05 GENE 12423 138299152.00 HCA05	-GENE12415 - GENE7775 - BAC_373-G10 GENE1879	930.00 933.00 936.00	- GENE 1241 - GENE 7775 BAC_373-1 - GENE 1879	G10	CFA11 CFA11 CFA11 CFA11	GENE 7780 GENE 1883 GENE 7783 GENE 7782	22960452.00 23713814.00 23828704.00 23828704.00
GENE1898 138336416.00 HSA05 GENE1897 138363360.00 HSA05 GENE12424 138462736.00 HSA05		942.00 945.00 951.00	- GENE1876 - GENE7774 - GENE1241		CFA11 CFA11 CFA11	GENE1885 GENE7784 GENE1886	23956954.00 24072472.00 24155450.00
GENE / 686 177535952.00 HSA 05 GENE 1988 177683152.00 HSA 05 GENE 7887 177749808.00 HSA 05 GENE 7888 178255510 00 HSA 05	GENE1881 - BAC_375-F21 GENE7780 -	957.00 963.00 977.00 1002.00	-GENE1881 BAC_375-I -GENE7780 -GENE7780	F21	CFA11 CFA11 CFA11	GENE7785 GENE1888 GENE7787 GENE1880	24251080.00 24443344.00 24548354.00 24780110 00
GENE7889 178505040.00 HSR05 GENE1991 178520032.00 HSR05 GENE7890 178618880.00 HSR05	GENE //83 - GENE //83 - GENE //83 - GENE //83 - GENE //83 - GENE //83 - GENE //83 -	1012.00 1019.00 1033.00	- GENE7783 - GENE7782 - GENE1883 - GENE7784		CFA11 CFA11 CFA11 CFA11	GENE7788 GENE1890 GENE7789	24881772.00 24991956.00 25221998.00
GENE1990 179195872.00 HSA05 GENE7891 179259968.00 HSA05 GENE1993 179310208.00 HSA05	GENE1885 - GENE1888 - GENE7785 -	1047.00 1051.00 1061.00	- GENE 1885 - GENE 1888 - GENE 7785		CFA11 CFA11 CFA11	GENE1891 GENE7790 GENE12418	25221998.00 25335396.00 25576600.00
GENE12450 179414912.00 HSA05 GENE12450 179503136.00 HSA05 GENE7893 179655264.00 HSA05 GENE1995 179771328 00 HCA05	GENE1886 - GENE7787 - GENE1889 - GENE7788 -	1058.00 1078.00 1084.00 1091.00	- GENE 1886 - GENE 7787 - GENE 1889 - GENE 7788		CFA11 CFA11 CFA11 CFA11	GENE 1894 GENE 1895 GENE 1897 GENE 7796	2000/406.00 27145414.00 27397530.00 27468978.00
GENE7894 179841168.00 HSA05 GENE12451 180103616.00 HSA05 GENE7895 180229760.00 HSA05	GENE7700 GENE1890 GENE7789 GENE7790	1101.00 1115.00 1130.00	- GENE1890 - GENE7789 - GENE7790		CFA11 CFA11 CFA11	GENE 12423 GENE 1898 GENE 12424	27780426.00 27862016.00 27948560.00
GENE12452 181203808.00 HSA05 GENE1997 181203808.00 HSA05 GENE7897 181677616.00 HSA05 GENE10925 0250000 HSA05	GENE1891 - GENE12418 - GENE12418 - GENE1894 -	1134.00 1142.00 1157.00	- GENE1891 - GENE1241 - GENE1894		CFA11 CFA11 CFA11	GENE8778 GENE8779 GENE2882 GENE2284	28295900.00 28813582.00 29367590.00 29799150.00
GENE8778 5882097.00 HSR18 GENE8778 5882097.00 HSR09 GENE8779 6496463.00 HSR09 GENE2882 7038425.00 HCR09	GENE/796 - GENE/796 - GENE1897 - GENE1895 - GENE12423 -	1168.00 1176.00 1183.00	- GENE1897 - GENE1895 - GENE1242		CFA11 CFA11 CFA11 CFA11	GENE2883 GENE12621 GENE8782	30664166.00 31196930.00 34734836.00
GENE8780 7568686.00 HSA09 GENE2883 8305671.00 HSA09 GENE12621 9089104.00 HSA09	GENE1898 - GENE12424 - GENE8778 -	1187.00 1190.00 1197.00	- GENE 1898 - GENE 1242 - GENE 8778		CFA11 CFA11 CFA11	GENE2884 GENE8783 GENE8784	34734836.00 35101104.00 35848252.00
GENE2884 12683149.00 HSA09 GENE8782 12764548.00 HSA09 GENE8783 13135668.00 HSA09 GENE8783 14145207 00 HSA09	GENE8779 - 	1204.00 1220.00 1240.00 1253.00	- GENE8779 - GENE2882 - GENE8780 - GENE2883		CFA11 CFA11 CFA11 CFA11	GENE2887 GENE8785 GENE2888	36408116.00 36573696.00 36573696.00
GENE2887 14629648.00 HSA09 GENE8785 14738457.00 HSA09 GENE2888 14813705.00 HSA09	GENE12621 - BAC_375-K7 GENE8782 -	1276.00 1301.00 1343.00	- GENE 1262 BAC_375-I - GENE 8782		CFA11 CFA11 CFA11	GENE8788 GENE2891 GENE8789	37085332.00 37219936.00 37287116.00
GENE2890 15449200.00 HSA09 GENE8788 15468323.00 HSA09 GENE2891 15583871.00 HSA09 GENE8789 15685082.00 HSA09	GENE2884 - GENE8783 - GENE8784 - GENE2887 -	1352.00 1358.00 1374.00 1380.00	- GENE2884 - GENE8783 - GENE8784 - GENE2887		CFA11 CFA11 CFA11 CFA11	GENE2892 GENE8790 GENE2893 GENE8791	37980876.00 37980876.00 38628424.00 39158160.00
GENE2892 16408899.00 HSA09 GENE8790 16517077.00 HSA09 GENE2893 17287400.00 HSA09	GENE8785 - BAC_375-P13 GENE2888 -	1389.00 1393.00 1399.00	- GENE8785 BAC_375-1 - GENE2888	P13	CFA11 CFA11 CFA11	GENE2895 GENE8792 GENE2894	39940808.00 39940808.00 39940808.00
GENE8791 17783284.00 HSA09 GENE2894 18696436.00 HSA09 GENE8792 18819516.00 HSA09 GENE3895 18918632 00 HSA09	GENE2890 - GENE8789 - GENE2891 - GENE2891 - GENE3788 -	1406.00 1412.00 1420.00 1423.00	- GENE2890 - GENE8789 - GENE2891 - GENE8788		CFA11 CFA11 CFA11 CFA11	GENE2896 GENE8793 GENE2897 CENE8795	40394652.00 40394652.00 40394652.00 40394652.00
GENE28993 19047616.00 HSA09 GENE2896 19304730.00 HSA09 GENE2897 19335392.00 HSA09	GENE2892 - GENE3790 - GENE2893 -	1435.00 1442.00 1446.00	-GENE2892 -GENE8790 -GENE2893		CFA11 CFA11 CFA11	GENE8796 GENE2899 GENE12625	41333808.00 41790264.00 41790264.00
GENE8795 19413730.00 HSA09 GENE8796 20403248.00 HSA09 GENE2899 20916316.00 HSA09 GENE2899 20916316.00 HSA09	GENE8791 - GENE2895 - GENE2895 - GENE3892 - CENE2894 -	1450.00 1453.00 1457.00 1461.00	- GENE8791 - GENE2895 - GENE8792 - GENE8792		CFA11 CFA11 CFA11	GENE8797 GENE8799 GENE2902	42157776.00 43052260.00 43052260.00
GENE12825 20933084.00 HSH09 GENE8797 21321182.00 HSA09 GENE8799 22441562.00 HSA09 GENE2902 22671948.00 HSA09	GENE2896 - GENE2896 - GENE8793 - GENE2897 -	1468.00 1475.00 1487.00	- GENE2896 - GENE8793 - GENE8793		CFA11 CFA11 CFA11 CFA11	GENE8801 GENE8802 GENE2905	43905940.00 46454540.00 46710856.00 46885832.00
GENE8800 23694320.00 HSA09 GENE8801 26915784.00 HSA09 GENE8802 27199014.00 HSA09	GENE8795 - GENE8796 - GENE8797 - GENE3797 -	1490.00 1501.00 1525.00	- GENE8795 - GENE8796 - GENE8797		CFA11 CFA11 CFA11	GENE8804 GENE2906 GENE2907	51114532.00 51114532.00 51166636.00
GENE2905 27318200.00 HSH09 GENE8804 32446808.00 HSA09 GENE2907 32533836.00 HSA09 GENE2906 32554068.00 HSA09	GENE12625 - GENE12625 - GENE8799 - GENE2902 -	1555.00 1537.00 1556.00 1564.00	- GENE22039 - GENE1262 - GENE8799 - GENE2902		CFA11 CFA11 CFA11 CFA11	GENE 12628 GENE 12628 GENE 12630 GENE 2909	51524352.00 51524352.00 51676228.00 51726644.00
GENE8805 33015036.00 HSA09 GENE12628 33050428.00 HSA09 GENE12630 33229936.00 HSA09	GENE8800 - BAC_376-M15 GENE8801 -	1584.00 1615.00 1632.00	- GENE8800 BAC_376-I - GENE8801	M15	CFA11 CFA11 CFA11	GENE8807 GENE8809 GENE2912	51726644.00 52090644.00 52196860.00
GENE8807 33284160.00 HSH09 GENE2909 33409644.00 HSA09 GENE8809 33985808.00 HSA09 GENE12631 34083164.00 HSA09	GENE0002 - GENE2905 - GENE2907 - GENE8804 -	1638.00 1641.00 1685.00 1692.00	- GENE2902 - GENE2905 - GENE2907 - GENE8804		CFA11 CFA11 CFA11 CFA11	GENE12631 GENE2915 GENE2916 GENE12632	52196860.00 52539832.00 52701116.00 52926052.00
GENE2912 34255828.00 HSA09 GENE2915 34501716.00 HSA09 GENE2916 34649584.00 HSA09	GENE2906 - GENE12630 - GENE12630 - GENE8805 - CENE10608	1698.00 1722.00 1732.00	- GENE2906 - GENE1263 - GENE8805 CENE1263		CFA11 CFA11 CFA11	GENE2918 GENE8815 GENE2919	52926052.00 52926052.00 53290440.00
GENE2918 35033544.00 HSA09 GENE8815 35081240.00 HSA09 GENE8815 35081240.00 HSA09 GENE2919 35331504.00 HSA09	GENE2909 - GENE2909 - GENE8807 - GENE2912 -	1748.00 1751.00 1754.00	- GENE2909 - GENE8807 - GENE8807		CFA11 CFA11 CFA11 CFA11	GENE30310 GENE12633 GENE8817 GENE8818	53290440.00 53474856.00 53586392.00
GENE8816 35351092.00 HSA09 GENE12633 35389844.00 HSA09 GENE8817 35535788.00 HSA09	GENE8809 - GENE12631 - GENE2915 -	1757.00 1769.00 1788.00	- GENE8809 - GENE1263 - GENE2915		CFA11 CFA11 CFA11	GENE2923 GENE8820 GENE8821	53859740.00 53859740.00 54010880.00
GENE2010 35093372.00 HSH09 GENE2923 35992904.00 HSA09 GENE8820 36112604.00 HSA09 GENE2924 36181076.00 HSA09	GENE2910 GENE12632 - GENE2918 - GENE8815 -	1811.00 1824.00 1836.00	- GENE2918 - GENE1263 - GENE2918 - GENE8815		CFA11 CFA11 CFA11 CFA11	GENE2924 GENE2925 GENE8822 GENE2926	54010880.00 54107612.00 54423812.00 54563416.00
GENE8821 36212736.00 HSA09 GENE2925 36326216.00 HSA09 GENE8822 36667124.00 HSA09 GENE8822 06667124.00 HSA09	GENE2919 - GENE8816 - GENE12633 - CENE9817	1854.00 1860.00 1863.00	- GENE2919 - GENE8816 - GENE1263 - GENE8817		CFA11 CFA11 CFA11	GENE8823 GENE8824 GENE2928	54987688.00 55128912.00 55207776.00
GENE8823 37292080.00 HSA09 GENE8824 37419620.00 HSA09 GENE2928 37527096.00 HSA09	BAC_335-03 GENE8818 - GENE2923 -	1900.00 1916.00 1922.00	BAC_385-0 - GENE8818 - GENE2923	03	CFA11 CFA11 CFA11	GENE8826 GENE10925 GENE2931	55375128.00 55529152.00 55529152.00
GENE8825 37578120.00 HSA09 GENE8826 37723848.00 HSA09 GENE2930 37771100.00 HSA09 GENE8827 37940576 40 HSA09	GENE8820 - GENE2925 - GENE8821 -	1934.00 1943.00 1946.00 1949.00	- GENE8820 - GENE2925 - GENE8821 BBC 270		CFA11 CFA11 CFA11	GENE2930 GENE8827 GENE8828 GENE2822	55529152.00 55529152.00 55793424.00 55933044
GENE2931 38005996.00 HSA09 GENE8828 38188392.00 HSA09 GENE2932 38385624.00 HSA09	GENE2924 - GENE2924 - GENE3822 - GENE2926 -	1955.00 1968.00 1977.00	- GENE2924 - GENE8822 - GENE2926		CFA11 CFA11 CFA11 CFA11	GENE8886 GENE8887 GENE8888	56030448.00 56145384.00 56339552.00
GENE3001 95004576.00 HSA09 GENE8886 95451312.00 HSA09 GENE8887 95601632.00 HSA09 GENE8888 95829048 00 HSA09	GENE8823 - GENE2928 - GENE10925 -	1989.00 1995.00 2000.00 2006.00	- GENE8823 - GENE2928 - GENE1092 - GENE2022		CFA11 CFA11 CFA11	GENE2993 GENE8890 GENE2994 GENE12650	56637896.00 56637896.00 56802160.00 56802160.00
GENE2993 96157232.00 HSA09 GENE8890 96229536.00 HSA09 GENE2994 96276928.00 HSA09	GENE8826 - GENE2930 - GENE2933 -	2020.00 2031.00 2046.00	- GENE8826 - GENE2930 - GENE2993		CFA11 CFA11 CFA11	GENE8892 GENE2996 GENE8893	57216880.00 57346424.00 57472540.00
GENE8892 96878600.00 HSA09 GENE8892 96878600.00 HSA09 GENE2996 96978320.00 HSA09 GENE8893 97211688.00 HCA09	GENESSSS - GENESSSS - GENESSSS - GENESSSS	2052.00 2057.00 2063.00	- GENE8887 - GENE8887 - GENE8828 - GENE8888	1//////////////////////////////////////	CFA11 CFA11 CFA11 CFA11	GENE2997 GENE2894 GENE2998 GENE8895	57636304.00 57913164.00 58170456.00
GENE2997 97291216.00 HSA09 GENE8894 97360736.00 HSA09 GENE2998 97859752.00 HSA09 GENE8895 97859752.00 HSA09	GENE8827 - GENE8824 - GENE8825 -	2069.00 2078.00 2081.00 2087.00	- GENE8827 - GENE8824 - GENE8825		CFA11 CFA11 CFA11	GENE2999 GENE8896 GENE3000 GENE2004	58251272.00 58336836.00 58449368.00 58847872
GENE2999 98057168.00 HSA09 GENE8896 98161512.00 HSA09 GENE8896 98272472.00 HSA09 GENE3000 98272472.00 HSA09	GENE2932 - GENE2932 - GENE8890 - GENE2994 - GENE12650 -	2100.00 2110.00 2116.00	- GENE8890 - GENE2994 - GENE1265		CFA11 CFA11 CFA11 CFA11	GENE12651 GENE8898 GENE3002	58817872.00 59458348.00 59504712.00
GENE12651 98657984.00 HSA09 GENE3006 99200208.00 HSA09 GENE8898 99466064.00 HSA09	GENE8892 - GENE2996 - GENE2996 - GENE8893 - CENE2997 -	2128.00 2131.00 2138.00 2144.00	- GENE8892 - GENE2996 - GENE8893 - GENE8893		CFA11 CFA11 CFA11	GENE8900 GENE3004 GENE6208	59743760.00 60618744.00 61545212.00
GENES900 99811192.00 HSA09 GENE3004 101160400.00 HSA09 GENE3901 102253120.00 HSA09	GENE3834 - GENE3834 - GENE2999 - GENE3895 -	2150.00 2154.00 2157.00	- GENE8894 - GENE2999 - GENE8895		CFA11 CFA11 CFA11	GENE10703 GENE3005 GENE8902	61720064.00 61831296.00 61941628.00
GENE3005 102644728.00 HSA09 GENE8902 102740464.00 HSA09 GENE8903 102923904.00 HSA09	GENE2998 - GENE8896 - GENE3000 -	2160.00 2163.00 2170.00	- GENE2998 - GENE8896 - GENE3000		CFA11 CFA11 CFA11	GENE3006 GENE8903 GENE3007	62056384.00 62159568.00 62605688.00
GENE3007 103450544.00 HSA09 GENE8905 103743136.00 HSA09 GENE12652 103863656.00 HSA09 GENE3010 104729280.00 HSA09	GENE3001 - GENE12651 - GENE8898 - GENE8890 -	2191.00 2197.00 2215.00 2222.00	-GENE3001 -GENE1265 -GENE8898 -GENE88900		CFA11 CFA11 CFA11 CFA11	GENE8905 GENE12652 GENE8907 GENE3010	62741320.00 62955040.00 63556780.00 63556780.00
GENE3017 104738424.00 HSA09 GENE8907 104778568.00 HSA09 GENE3018 104936928.00 HSA09	GENE3002 - GENE3004 - GENE6208 -	2229.00 2236.00 2248.00	- GENE3002 - GENE3004 - GENE6208		CFA11 CFA11 CFA11	GENE3011 GENE3012 GENE8909	63947592.00 64143912.00 64252520.00
GENES011 105071088.00 HSA09 GENES012 105470936.00 HSA09 GENE8909 105626928.00 HSA09 GENES013 105762768.00 HCA09	7-GENE8901 	2263.00 2266.00 2270.00	- GENE8901 - GENE8902 - GENE3005 - GENE8903		CFA11 CFA11 CFA11 CFA11	GENE3013 GENE3014 GENE8910 GENE8911	65470632.00 65470632.00 65470632.00 65580828.00
GENE3023 106391368.00 HSA09 GENE3024 106717112.00 HSA09 GENE8910 107004496.00 HSA09	GENE3006 - GENE10703 - EST15E10	2277.00 2284.00 2297.00	- GENE3006 - GENE1070 EST15E10		CFA11 CFA11 CFA11	GENE3015 GENE3016 GENE8913	65652288.00 65898928.00 66546800.00
GENES014 10/120944.00 HSA09 GENE8911 107161680.00 HSA09 GENE3015 107291544.00 HSA09 GENE3016 107587240.00 HCA09	GENE12652 - GENE8905 - GENE3007 - GENE8907 -	2307.00 2311.00 2324.00	- GENE 1265 - GENE8905 - GENE3007 - GENE8907		CFA11 CFA11 CFA11 CFA11	GENE3017 GENE12653 GENE3018 GENE12654	66597144.00 66597144.00 66704532.00 66704532.00
GENE3027 107645456.00 HSA09 GENE8913 108313400.00 HSA09 GENE12653 108386696.00 HSA09	GENE3010 - GENE3011 - GENE3011 - BAC_373-H14	2327.00 2333.00 2340.00	-GENE3010 -GENE3011 BAC_373-I	H14	CFA11 CFA11 CFA11	GENE8915 GENE8916 GENE8917	66904336.00 67141024.00 67471904.00
GENE3030 108598480.00 HSA09 GENE3030 108662160.00 HSA09 GENE8915 108723776.00 HSA09 GENE8916 109083112 00 HSA09	GENES909 - GENES909 - GENES012 - GENES013 - GENES014 -	2354.00 2364.00 2378.00 2387.00	- GENE8909 - GENE3012 - GENE3013 - GENE3014		CFA11 CFA11 CFA11 CFA11	GENE3022 GENE8919 GENE3023 GENE12656	67622816.00 67745384.00 67860864.00 67860864.00
GENE8917 109585664.00 HSA09 GENE8022 109788744.00 HSA09 GENE8919 109865216.00 HSA09	GENE8910 - GENE3015 - GENE8911 -	2394.00 2404.00 2408.00	-GENE8910 -GENE3015 -GENE8911		CFA11 CFA11 CFA11	GENE3024 GENE12657 GENE8921	68134544.00 68134544.00 68320912.00
GENE12656 110066656.00 HSA09 GENE12657 110391808.00 HSA09 GENE8922 110828920.00 HSA09 GENE8923 111185480 00 HSA09	GENE3016 - GENE3018 - GENE3017 -	2411.00 2425.00 2428.00 2434.00	- GENE3016 - GENE3018 - GENE3017 - GENE3017		CFA11 CFA11 CFA11 CFA11	GENE8922 GENE8923 GENE3027 GENE8024	68472944.00 68805488.00 68904064.00 69017488.00
GENE8924 111400384.00 HSA09 GENE8928 111428584.00 HSA09 GENE8925 111551624.00 HSA09	GENE0915 - GENE8915 - GENE12654 - GENE12653 -	2438.00 2447.00 2450.00	-GENE8915 -GENE1265 -GENE1265		CFA11 CFA11 CFA11	GENE3028 GENE8925 GENE8926	69017488.00 69159696.00 69680392.00
GENES037 112057448.00 HSA09 GENE8926 112186944.00 HSA09 GENE3031 112561616.00 HSA09 GENE8929 112928696.00 HSA09	GENE8917 - GENE8916 - GENE3023 - GENE3024 -	2459.00 2459.00 2462.00 2465.00	- GENE8917 - GENE8916 - GENE3023 - GENE3024		CFA11 CFA11 CFA11 CFA11	GENE3030 GENE3031 GENE8929 GENE3033	55545200.00 70040024.00 70220024.00 70471832.00
GENE3033 113042576.00 HSA09 GENE3034 113539168.00 HSA09 GENE3035 114440952.00 HSA09	GENE8921 - GENE8922 - GENE12656 -	2468.00 2474.00 2480.00	- GENE8921 - GENE8922 - GENE1265		CFA11 CFA11 CFA11	GENE3 034 GENE3 035 GENE3 036	70922032.00 71491056.00 71669136.00
GENE3036 114706256.00 HSA09 GENE3038 114797704.00 HSA09 GENE8933 114835888.00 HSA09 GENE8932 115233480 00 HSA09	GENE8919 - GENE3022 - GENE12657 - GENE5902	2483.00 2490.00 2493.00 2496.00	- GENE8919 - GENE3022 - GENE1265 - GENE8922		CFA11 CFA11 CFA11 CFA11	GENE8933 GENE8932 GENE3037 GENE12661	/1845416.00 72186632.00 72734112.00 73911704.00
GENE12661 117306056.00 HSA09 GENE12663 118760888.00 HSA09 GENE8936 118925984.00 HSA09	GENE3923 - GENE3027 - GENE8924 - GENE3028 -	2503.00 2506.00 2509.00	- GENE3027 - GENE8924 - GENE3028		CFA11 CFA11 CFA11	GENE3038 GENE12663 GENE8936	75019584.00 75138952.00 75223872.00
GENE12664 118993152.00 HSA09 GENE8939 119477160.00 HSA09 GENE10703 30584096.00 HSA17 GENE6208 112511464.00 HSA04	GENE8925 - GENE8926 - GENE3031 - GENE3033 -	2515.00 2529.00 2551.00 2563.00	- GENE8925 - GENE8926 - GENE3031 - GENE3033		CFA11 CFA11	GENE12664 GENE8939	75270904.00 75651864.00
GENE8921 158841984.00 HSA01	GENE3030 - GENE3030 - GENE8929 - GENE3034 -	2570.00 2580.00 2595.00	-GENE3030 -GENE8929 -GENE3034				
	GENE3036 - GENE3035 - GENE8933 -	2609.00 2616.00	- GENE3 035 - GENE8 933				



RH MAP CFA12

GENE4840	37457696.00	HSA
GENE10169	81148432.00	HSA
GENE7976	0.00	HSA
GENE2064	30029764.00	HSA
GENE12465	30728534.00	HSA
GENE13054	30989148.00	HSA
GENE2071	31190172.00	HSB
GENEZ970	31233408.00	HCO
CENE2072	31606413 00	HCO
GENEZ07Z	31606412.00	IDSH UCO
GENE2073	31728522.00	HSH
GENE12466	31783212.00	HSH
GENE7972	31830080.00	HSA
GENE2074	31899544.00	HSA
GENE7973	32025500.00	HSA
GENE7974	32166984.00	HSA
GENE2076	32208562.00	HSA
GENE13056	32332812.00	HSB
GENE2077	32428450 00	HCO
CENED 077	20424456 00	HC0
GENEZ070	32404436.00	IDSH UCO
GENE13057	3262/564.00	IISH
GENE7979	32967468.00	HSH
GENE7980	33106316.00	HSA
GENE13058	33286020.00	HSA
GENE7982	33457746.00	HSA
GENE13061	33801720.00	HSA
GENE7985	33926216.00	HSA
GENE2087	34050184-00	HSP
GENE7986	34261984 0.0	HCO
CENE7987	34430750 00	HCO
CENE7000	246.04046 00	NCO NCO
GENE/900	04777000 00	INCO.
GENE2090	34777232.00	HSH
GENE7989	34872048.00	HSA
GENE2091	34891712.00	HSA
GENE7990	34986084.00	HSA
GENE2092	35074568.00	HSA
GENE7991	35136632.00	HSA
GENE2093	35255696.00	HSA
GENE7992	35309008.00	HSB
CENE2094	35489208 00	HCO
CENE2004	25622622 00	HC0
GENEZ090	05704444 00	IDSH UCO
GENE/994	35734144.00	IISH
GENE2096	35849584.00	HSH
GENE13063	35934192.00	HSA
GENE2097	36122672.00	HSA
GENE2098	36255592.00	HSA
GENE12468	36320696.00	HSA
GENE2099	36354744.00	HSA
GENE13067	36532256.00	HSA
GENE12469	36813444.00	HSB
GENE2102	36836060.00	HCO
CENE12068	36837393 00	HCO
GENEI0000	00007002.00	UC0
GENEIZ470	36974632.00	IDSH UCO
GENE13069	36987164.00	HSH
GENE8001	37022116.00	HSA
GENE8002	37345288.00	HSA
GENE13070	37405324.00	HSA
GENE8003	37485576.00	HSA
GENE13071	38128592.00	HSA
GENE8004	38166216.00	HSA
GENE8005	38696404.00	HSA
GENE13072	38800376.00	HSB
GENE13073	39079788.00	HCO
CENE210070	39206088 00	HCO
CENE2100	202004400.00	HC0
GENEZI09	00757000.00	HSH UCO
GENEZIIV	39/5/200.00	IDSH UCO
GENE12471	39889568.00	HSH
GENE8009	39920940.00	HSH
GENE8010	41111992.00	HSA
GENE8011	41235880.00	HSA
GENE2113	41290160.00	HSA
GENE2114	41611104.00	HSA
GENE13074	41659888.00	HSA
GENE8013	41698944.00	HSA
GENE2115	41761848.00	HSP
GENES014	41803732-00	HCO
GENE2116	41936000 00	HCO
GENE2117	42091064 00	HCO
CENERALS	40140004.00	HOD NO.
GENEOU10	42143204.00	IDSH USA
GENE2118	42240872.00	HSH
GENE8017	42250128.00	HSA
GENE13075	42256904.00	HSA
GENE8018	42672260.00	HSA
GENE2120	42711736.00	HSA
GENE8019	42843232.00	HSA
GENE2122	43018284.00	HSA
GENE8021	43188368.00	HSA
GENE13080	43371936.00	HSA

GENE12465 30728534.00 HSA06	GENE13054 - 24.00	- GENE 1	2465	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2	2465 3370194.00 3054 3621636.00
GENE13054 30909140.00 HSH06	GENE7970 - 41.00 GENE7972 - 49.00	-GENE7	970	CFA12 GENE7 CFA12 GENE2	970 3775099.00 064 3867051.00
GENE2071 31190172.00 HSA06 GENE7970 31233408.00 HSA06 GENE2072 31606412.00 HSA06	GENE12466 - 51.00 GENE2073 - 63.00 GENE2064 - 76.00	- GENE2	073	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2	072 3954002.00 2466 4108798.00 273 4108798.00
GENE2073 31728522.00 HSA06 GENE12466 31783212.00 HSA06		- GENE7 - GENE2	973	CFA12 GENE7 CFA12 GENE2	972 4167127.00 074 4229334.00
GENE2074 31899544.00 HSA06 GENE2073 32025500.00 HSA06	GENE13056 - 125.00 GENE7982 - 134.00	-GENE1 -GENE7	3056	CFA12 GENE7 CFA12 GENE7 CFA12 GENE2	974 4450774.00 076 4480845.00
GENE7974 32166984.00 HSA06 GENE2076 32208562.00 HSA06 GENE13056 32332812.00 HSA06	GENE7980 - 144.00 GENE2077 - 148.00 GENE7979 - 151.00	- GENE7 - GENE2 - GENE7	980	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2	3056 4729125.00 077 5063215.00 078 5063215.00
GENE2077 32428450.00 HSA06 GENE2078 32484456.00 HSA06	GENE13057 - 155.00 GENE13058 - 168.00	- GENE1 - GENE1	3057	CFA12 GENE7 CFA12 GENE1	976 5090357.00 3057 5284487.00
GENE13057 32027564.00 HSH06 GENE7979 32967468.00 HSA06 GENE7980 33106316.00 HSA06	GENE2078 - 185.00 GENE2071 - 203.00	- GENE2 - GENE2	078	CFA12 GENE7 CFA12 GENE7 CFA12 GENE1	979 5376301.00 980 5504053.00 3058 5600782.00
GENE13058 33286020.00 HSA06 GENE7982 33457746.00 HSA06 GENE13061 33801720.00 HSA06	GENE2072 - 225.00 GENE2074 - 249.00 GENE7985 - 286.00	- GENE2 - GENE2 - GENE7	072	CFA12 GENE7 CFA12 GENE1 CFA12 GENE7	982 5853096.00 3061 6077854.00 985 6169755.00
GENE7985 33926216.00 HSA06 GENE2087 34050184.00 HSA06	EST2A7 294.00 GENE13061 - 315.00	EST2A	3061	CFA12 GENE2 CFA12 GENE7	087 6240088.00 986 6463540.00
GENE7986 34261984.00 HSA06	GENE2087 - 333.00 GENE7986 - 343.00 GENE7987 - 350.00	- GENE2 - GENE7 - GENE7	986	CFA12 GENE7 CFA12 GENE7 CFA12 GENE2	987 6621839.00 988 6819997.00 090 6909609.00
GENE2090 34777232.00 HSA06 GENE7989 34872048.00 HSA06 GENE2091 34891712.00 HSA06	GENE2090 - 379.00 GENE2091 - 392.00	- GENE7 - GENE2 - GENE2	988	CFA12 GENE2 CFA12 GENE2 CFA12 GENE2	091 7087518.00 092 7087518.00 991 7087518.00
GENE7990 34986084.00 HSA06 GENE2092 35074568.00 HSA06	GENE2092 - 414.00 GENE7994 - 427.00	-GENE2 -GENE7	092	CFA12 GENE7 CFA12 GENE7	990 7087518.00 989 7087518.00
GENE7991 35136632.00 HSA06 GENE2093 35255696.00 HSA06 GENE7992 35309008.00 HSA06	GENE2094 - 437.00 GENE13063 - 447.00 GENE2099 - 454.00	- GENE2 - GENE1 - GENE2	094	CFA12 GENE2 CFA12 GENE7 CFA12 GENE2	093 7345201.00 992 7384656.00 094 7529267.00
GENE2094 35489208.00 HSA06 GENE2095 35633632.00 HSA06	GENE13069 - 470.00 GENE13071 - 498.00 GENE2102 - 530.00	- GENE1 - GENE1 - GENE2	3069	CFA12 GENE2 CFA12 GENE7 CFA12 GENE7	095 7654033.00 994 7770816.00
GENE2096 35849584.00 HSA06 GENE2096 35849584.00 HSA06 GENE13063 35934192.00 HSA06	GENE12470 - 554.00 GENE4840 - 577.00	-GENE1 -GENE4	2470	CFA12 GENE1 CFA12 GENE1 CFA12 GENE4	3063 7948679.00 840 8130070.00
GENE2097 36122672.00 HSA06 GENE2098 36255592.00 HSA06 GENE12468 36320696.00 HSA06	GENE2095 - 584.00 GENE7992 - 595.00 GENE7991 - 602.00	- GENE2 - GENE7 - GENE7	995 992 991	CFA12 GENE2 CFA12 GENE2 CFA12 GENE1	097 8130070.00 098 8341347.00 2468 8341347.00
GENE2099 36354744.00 HSA06 GENE13067 36532256.00 HSA06	GENE7990 - 607.00 GENE7989 - 612.00 GENE2093 - 642.00	- GENE7 - GENE7 - GENE2	990	CFA12 GENE2 CFA12 GENE1 CFA12 GENE1	099 8473629.00 3067 8473629.00
GENE12469 368313444.00 HSH06 GENE2102 36836060.00 HSA06 GENE13068 36837392.00 HSA06	GENE2096 - 675.00 GENE2097 - 685.00	- GENE2 - GENE2 - GENE2	096 097	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2	3068 8769662.00 102 8910913.00
GENE12470 36974832.00 HSA06 GENE13069 36987164.00 HSA06 GENE8001 37022116.00 HSA06	GENE2098 - 690.00 GENE12468 - 695.00 GENE13067 - 707.00	- GENE2 - GENE1 - GENE1	098	CFA12 GENE1 CFA12 GENE1 CFA12 GENE8	3069 8963627.00 2470 8963627.00 001 9002538.00
GENE8002 37345288.00 HSA06 GENE13070 37405324.00 HSA06	GENE12469 - 720.00 GENE13068 - 724.00 GENE8003 - 734.00	- GENE1 - GENE1 - GENE8	2469	CFA12 GENES CFA12 GENES CFA12 GENES	003 9335462.00 002 9335462.00
GENE13071 38128592.00 HSA06 GENE8004 38166216.00 HSA06	GENE8002 - 747.00 GENE8001 - 751.00	- GENE8 - GENE8	002	CFA12 GENES CFA12 GENES	3071 9912364.00 004 9912364.00
GENE8005 38696404.00 HSA06 GENE13072 38800376.00 HSA06 GENE13073 39079788.00 HSA06	GENE13070 - 759.00 GENES004 - 768.00 GENE10169 - 776.00	- GENE1 - GENE8 - GENE1	3070	CFA12 GENE1 CFA12 GENE8 CFA12 GENE1	0169 9912364.00 005 10529334.00 3072 10529334.00
GENE2108 39206088.00 HSA06 GENE2109 39294180.00 HSA06	GENE8005 - 785.00 GENE13072 - 795.00	- GENE8 - GENE1	005	CFA12 GENE1 CFA12 GENE2	3073 10999915.00 108 10999915.00
GENE2110 39757208.00 HSH06 GENE12471 39889568.00 HSA06 GENE8009 39920940.00 HSA06	GENE2108 - 817.00 GENE8009 - 835.00	- GENE2 - GENE8	108	CFA12 GENE3 CFA12 GENE3 CFA12 GENE1	109 11374535.00 009 11646369.00 2471 11646369.00
GENE8010 41111992.00 HSA06 GENE8011 41235880.00 HSA06 GENE2113 41290160.00 HSA06	GENE12471 - 843.00 	- GENE1 - GENE2 - GENE2	2471	CFA12 GENE2 CFA12 GENE8 CFA12 GENE2	110 11646369.00 010 12833840.00 113 12947872.00
GENE2114 41611104.00 HSA06 GENE13074 41659888.00 HSA06	GENE2120 - 889.00 GENE8021 - 916.00 GENE2116 - 922.00	- GENE2 - GENE8		CFA12 GENES CFA12 GENE2	011 12947872.00 114 13214662.00
GENE2013 41693944.00 HSH06 GENE2115 41761848.00 HSA06 GENE8014 41803732.00 HSA06	GENE13080 - 934.00 GENE13080 - 934.00 GENE8023 - 947.00	-GENE1 -GENE8	110 3080 023	CFA12 GENES CFA12 GENES CFA12 GENES	013 13318360.00 115 13373294.00
GENE2116 41936000.00 HSA06 GENE2117 42091064.00 HSA06 GENE8016 42143204.00 HSA06	GENE13075 - 960.00 BAC_381-M2 965.00 GENE8016 - 972.00	- GENE1 BAC_38 - GENE8	3075 31-H2 016	CFA12 GENE8 CFA12 GENE2 CFA12 GENE2	014 13442348.00 116 13533595.00 117 13625272.00
GENE2118 42240872.00 HSA06 GENE8017 42250128.00 HSA06	GENE2113 - 980.00 GENE8013 - 985.00 GENE8014 - 985.00	- GENE2 - GENE8 - GENE8		CFA12 GENES CFA12 GENE1	016 13680223.00 3075 13766194.00
GENE13075 42256904.00 HSH06 GENE8018 42672260.00 HSA06 GENE2120 42711736.00 HSA06	GENES010 - 1005.00 GENES011 - 1010.00	- GENES		CFA12 GENE2 CFA12 GENE3 CFA12 GENE2	110 13766194.00 017 13766194.00 120 14197042.00
GENES019 42843232.00 HSA06 GENE2122 43018284.00 HSA06 GENES021 43188368.00 HSA06	BAC_372-K13 1015.00 GENE13074 1024.00 GENE2115 1037.00	BAC_33 - GENE1 - GENE2	22-R13 3074 115	CFA12 GENES CFA12 GENES CFA12 GENES	018 14197042.00 019 14328657.00 122 14496994.00
GENE13080 43371936.00 HSA06 GENE8023 43465136.00 HSA06	GENE2117 - 1042.00 GENE2118 - 1047.00	- GENE2 - GENE2		CFA12 GENES CFA12 GENES	021 14583207.00 3080 14736815.00
GENE2125 43534632.00 HSR06 GENE8024 43601240.00 HSR06 GENE2127 43804856.00 HSR06	GENES017 - 1052.00 GENES019 - 1054.00 GENE2114 - 1085.00	- GENES - GENES	017 019 114	CFA12 GENES CFA12 GENE2 CFA12 GENES	023 14811290.00 125 14914878.00 024 14974892.00
GENE8026 43950008.00 HSA06 GENE2128 44019084.00 HSA06 GENE8027 44091924 00 HSA06	GENE2122 - 1113.00 GENE8018 - 1132.00 GENE8026 - 1160.00	- GENE2 - GENE8 - GENE8	122 018 026	CFA12 GENE2 CFA12 GENE3 CFA12 GENE3	127 15205421.00 026 15287284.00 128 15353206.00
GENE2130 44218256.00 HSA06 GENE2130 44242744.00 HSA06	GENE2125 - 1191.00 GENE8024 - 1205.00	- GENE2 - GENE8	125 024	CFA12 GENES CFA12 GENES	027 15445071.00 028 15570152.00
GENE13081 44244908.00 HSA06 GENE12474 44277056.00 HSA06 GENE8032 46153816.00 HSA06	EST1165 1208.00 GENE2127 - 1218.00 GENE8028 - 1234.00	- GENE2 - GENE8	35 127 028	CFA12 GENE1 CFA12 GENE2 CFA12 GENE1	3081 15570152.00 130 15594616.00 .2474 15602101.00
GENE2135 46707472.00 HSA06 GENE8034 46767908.00 HSA06 GENE2136 46876668 00 HSA06	GENE12474 - 1241.00 GENE2128 - 1246.00 GENE2130 - 1251.00	- GENE1 - GENE2 - GENE2	2474	CFA12 GENES CFA12 GENES CFA12 GENES	032 17448524.00 034 17814944.00
GENE2136 47023156.00 HSA06 GENE8035 47023156.00 HSA06 GENE12477 47267740.00 HSA06	GENE13081 - 1259.00 GENE8027 - 1275.00	-GENE1 -GENE8	3081 027	CFA12 GENE2 CFA12 GENE3 CFA12 GENE3	136 18055168.00 035 18055168.00
GENE13084 47626196.00 HSA06 GENE2138 47696732.00 HSA06 GENE8037 47722416.00 HSA06	BAC_375-H9 1306.00 GENE8032 - 1330.00 GENE8034 - 1332.00	- GENE8	75-H9 032 034	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2	2477 18254132.00 3084 18593966.00 138 18665852.00
GENE8038 49471624.00 HSA06 GENE2140 49588216.00 HSA06	GENE2135 - 1351.00 GENE2136 - 1372.00	- GENE2 - GENE2 - GENE3		CFA12 GENES CFA12 GENES	037 18697004.00 038 20232180.00
GENE20039 49620040.00 HSH06 GENE2141 49712296.00 HSA06 GENE8040 49745660.00 HSA06	GENE12477 - 1379.00 GENE13084 - 1386.00	-GENE1	2477	CFA12 GENES CFA12 GENES CFA12 GENES	039 20357488.00 040 20507048.00
GENE2142 49855436.00 HSA06 GENE8042 50851504.00 HSA06 GENE2144 51870072.00 HSA06	GENE2138 - 1391.00 GENE8037 - 1424.00 GENE8040 - 1446.00	- GENE2 - GENE8 - GENE8	138 037 040	CFA12 GENE2 CFA12 GENE2 CFA12 GENE8	141 20507048.00 142 20680104.00 042 21509676.00
GENE8043 52099740.00 HSA06 GENE2145 52159768.00 HSA06	GENE2141 - 1451.00 GENE2140 - 1458.00 GENE2140 - 1458.00	- GENE2 - GENE2	141 140 142	CFA12 GENE2 CFA12 GENE8	144 22654648.00 043 22799208.00
GENES044 52365424.00 HSH06 GENES046 52789840.00 HSA06 GENES048 53207116.00 HSA06	GENE2039 - 1480.00 GENE2039 - 1480.00 GENE2144 - 1498.00	- GENE2 - GENE8 - GENE2	192 039 144	CFA12 GENES CFA12 GENES CFA12 GENES	145 22000040.00 044 22999104.00 046 23325206.00
GENE2150 53358536.00 HSA06 GENE8049 53562776.00 HSA06 GENE2151 53793996.00 HSA06	GENE8043 - 1516.00 GENE8046 - 1521.00 GENE2145 - 1541.00	- GENE8 - GENE8 - GENE2	043 046 145	CFA12 GENE8 CFA12 GENE2 CFA12 GENE8	048 23677360.00 150 23950692.00 049 24182006.00
GENE13085 53994464.00 HSA06 GENE8052 55406808.00 HSA06	GENE8044 - 1553.00 GENE8048 - 1590.00 GENE2151 - 1513.00	- GENE8 - GENE8 - GENE2	044	CFA12 GENE2 CFA12 GENE1 CFA12 GENE3	151 24332756.00 3085 24552254.00
GENE2154 55734112.00 HSH06 GENE2155 56391920.00 HSA06 GENE8054 56761800.00 HSA06	GENE2151 - 1613.00 -GENE13085 - 1628.00 -GENE2150 - 1656.00	-GENE1	151 3085 150	CFA12 GENE2 CFA12 GENE2 CFA12 GENE2	154 25939392.00 155 26654932.00
GENE12478 57065400.00 HSA06 GENE2158 57178808.00 HSA06 GENE12479 57513752.00 HSA06	GENE8049 - 1661.00 GENE8042 - 1695.00 GENE8038 - 1722.00	- GENE8 - GENE8 - GENE8	049 042 038	CFA12 GENE8 CFA12 GENE2 CFA12 GENE1	054 27017736.00 158 27442404.00 2479 27442404.00
GENE8057 62992952.00 HSA06 GENE12480 64001168.00 HSA06	GENE8052 - 1822.00 GENE2154 - 1839.00	-GENE8 -GENE2	052	CFA12 GENES CFA12 GENES	2478 27442404.00 057 29074068.00
GENE12481 64352760.00 HSH06 GENE13088 65592108.00 HSA06 GENE8059 65607624.00 HSA06	GENE2155 - 1862.00 GENE2054 - 1880.00	- GENE2	00-F14 155 054	CFA12 GENE1 CFA12 GENE1 CFA12 GENE1	280 29396524.00 2480 29879294.00 .2481 30069520.00
GENE10825 66181308.00 HSA06 GENE8061 69781008.00 HSA06 GENE8062 70854448.00 HSA06	GENE2158 - 1927.00 GENE12479 - 1951.00 GENE12478 - 1972.00	- GENE2 - GENE1 - GENE1	158 2479 2478	CFA12 GENE1 CFA12 GENE8 CFA12 GENE1	3088 31284506.00 059 31284506.00 0825 31561112.00
GENE8063 71264896.00 HSA06 GENE2165 71344304.00 HSA06	BAC_381-A1 1999.00 GENE2280 - 2052.00 CENE2267 - 2055.00	BAC_38	31-A1 280 952	CFA12 GENES CFA12 GENES	061 34669760.00 062 35571536.00
GENE12402 71470304.00 HSH06 GENE8064 71598864.00 HSA06 GENE8065 72119344.00 HSA06	GENE12480 - 2073.00 GENE12481 - 2086.00	-GENE1	2480	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2	2482 36229252.00 165 36229252.00
GENE2168 74130528.00 HSA06 GENE12484 74315688.00 HSA06 GENE8068 74473256.00 HSA06	GENE13088 - 2105.00 GENE10825 - 2118.00 GENE8059 - 2135.00	- GENE1 - GENE1 - GENE8	3088	CFA12 GENE8 CFA12 GENE8 CFA12 GENE2	064 36229252.00 065 36860424.00 168 38419268.00
GENE2170 75906344.00 HSA06 GENE2172 76597760.00 HSA06 GENE12485 76652216.00 HSA06	GENE8061 - 2235.00 GENE8062 - 2247.00 GENE8063 - 2268.00	- GENE8 - GENE8 - GENE8	061 062 063	CFA12 GENE1 CFA12 GENE3 CFA12 GENE3	2484 38546888.00 068 38774560.00
GENE2173 79650480.00 HSA06 GENE8072 79908504.00 HSA06	GENE12482 - 2285.00 GENE2165 - 2300.00	-GENE1 -GENE2	2482	CE012 CENE2	170 39750364 00
CENECODO COCODA DO UCODO DO DO DO DO DO DO DO	GENES065 - 2320.00	-GENE8		CFA12 GENE1	170 39750364.00 172 40440776.00 2485 40440776.00
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06	-GEREOUDO - 2000.00	- GENE8	065	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2 CFA12 GENE3	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE8075 82450296.00 HSA06 GENE2177 82874744.00 HSA06 GENE8076 83759224.00 HSA06	BAC_372-E5 2355.00 BAC_372-E5 2356.00 GENE12484 - 2367.00 GENE2168 - 2376.00	- GENE8 BAC_37 - GENE1 - GENE2	065 068 72-E5 2484 168	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 176 44096944.00
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE8075 82450296.00 HSA06 GENE2177 82874744.00 HSA06 GENE8076 83759224.00 HSA06 GENE8077 83901008.00 HSA06 GENE2179 84229312.00 HSA06	GENE 3066 2353.00 BAC_372-E5 2356.00 GENE 12484 2367.00 GENE 2168 2376.00 GENE 2170 2386.00 GENE 12484 2367.00 GENE 2170 2386.00 GENE 12484 2367.00 GENE 2170 2386.00 GENE 12484 2394.00	- GENE8 BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2	065 068 72-E5 2484 168 170 172 2485	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 176 44096944.00 075 45134936.00 177 45501128.00
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE8075 82450296.00 HSA06 GENE8076 83759224.00 HSA06 GENE8077 83901008.00 HSA06 GENE8077 83901008.00 HSA06 GENE8078 84660384.00 HSA06 GENE8079 84890488.00 HSA06 GENE8079 84890488.00 HSA06	GENE20060 2353.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2172 2394.00 GENE12485 2402.00 GENE250 2422.00 GENE2173 2435.00	- GENE8 BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE1 - GENE2 - GENE2 - GENE2	065 068 72-E5 2484 168 170 172 2485 50 173	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3 CFA12 GENE3	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 176 44096944.00 075 45134936.00 177 45501128.00 076 46340776.00 077 46530752.00 179 46848728.00
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE2177 82874744.00 HSA06 GENE8076 83759224.00 HSA06 GENE8077 83901008.00 HSA06 GENE8078 84660384.00 HSA06 GENE8078 84660384.00 HSA06 GENE8079 84890488.00 HSA06 GENE8080 86095744.00 HSA06 GENE2182 86190352.00 HSA06 GENE2184 867785336.00 HSA06	GENE20000 2353.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2172 2394.00 GENE2172 2394.00 GENE2173 2402.00 GENE2173 2435.00 GENE2072 2435.00 GENE3073 2445.00 GENE3073 2450.00 GENE2176 2475.00	- GENES BAC_3; - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE3 - GENE3 - GENE3 - GENE3	065 068 72-E5 2484 168 170 172 2485 50 173 072 073 176	CFA12 GENE1 CFA12 GENE2 CFA12 GENE2 CFA12 GENE3 CFA12 GENE3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
GENE8073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE8075 82450296.00 HSA06 GENE8077 83901008.00 HSA06 GENE8077 83901008.00 HSA06 GENE8078 84660384.00 HSA06 GENE8078 84660384.00 HSA06 GENE8080 86095744.00 HSA06 GENE2182 86190352.00 HSA06 GENE2184 87785336.00 HSA06 GENE2184 87785336.00 HSA06 GENE2185 87989288.00 HSA06 GENE2185 87989288.00 HSA06 GENE2185 87989288.00 HSA06 GENE2186 88211240.00 HSA06	BAC_372-E5 2355.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2171 2386.00 GENE2172 2394.00 GENE2172 2394.00 GENE2173 2402.00 GENE2173 2442.00 GENE8072 2442.00 GENE8073 2450.00 GENE2176 2475.00 GENE2175 2495.00 GENE2175 2495.00 GENE2175 2506.00 GENE8075 2520.00	- GENES BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE3 - GENE3 BAC_33 - GENE3	065 068 72-E5 2484 168 170 172 2485 50 173 072 073 176 175 30-B24 075	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CFA12 GENE3	170 39750364.00 172 40440776.00 .2485 40440776.00 .50 42169652.00 .173 42833724.00 .072 43033916.00 .073 43420272.00 .175 43768880.00 .176 44096944.00 .075 45134936.00 .177 45501128.00 .076 46340776.00 .077 46530752.00 .078 47436484.00 .079 47436484.00 .080 48335272.00 .182 48454332.00
GENES073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE2075 82450296.00 HSA06 GENE2177 82874744.00 HSA06 GENE8076 83759224.00 HSA06 GENE8077 83901008.00 HSA06 GENE2179 84229312.00 HSA06 GENE8078 84660384.00 HSA06 GENE8079 84890488.00 HSA06 GENE8080 86095744.00 HSA06 GENE2182 86190352.00 HSA06 GENE2184 87785336.00 HSA06 GENE2184 87785336.00 HSA06 GENE2185 87989288.00 HSA06 GENE2185 87989288.00 HSA06 GENE2186 88211240.00 HSA06 GENE2187 88763976.00 HSA06 GENE2188 89802976.00 HSA06 GENE2188 89802976.00 HSA06 GENE2188 89802976.00 HSA06	GENE20000 2353.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2170 2386.00 GENE2170 2386.00 GENE2171 2394.00 GENE2172 2394.00 GENE2172 2394.00 GENE2172 2402.00 GENE2173 2435.00 GENE2173 2442.00 GENE2176 2442.00 GENE2176 2442.00 GENE2176 24450.00 GENE2176 2450.00 GENE2175 2495.00 BAC_330-B24 2506.00 GENE2177 2537.00 GENE2077 2571.00 GENE2077 2571.00	- GENE8 BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE8 - GENE8 - GENE2 - GENE2 - GENE8 - GENE8 - GENE8 - GENE8 - GENE8 - GENE8	065 068 72-E5 2484 168 170 172 2485 50 173 072 073 176 175 30-B24 075 177 077 077 077 077	CFA12 GENE3 CFA12 GENE3	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 176 44096944.00 075 45134936.00 177 45501128.00 076 46340776.00 077 46530752.00 179 46848728.00 078 47436484.00 079 47436484.00 080 4835272.00 182 48454332.00 081 48532096.00 184 49677760.00 083 49677760.00
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GENES073 80378048.00 HSA06 GENE2175 80619528.00 HSA06 GENE2176 80783064.00 HSA06 GENE2176 80783064.00 HSA06 GENE2176 82450296.00 HSA06 GENE8075 82450296.00 HSA06 GENE8076 83759224.00 HSA06 GENE8077 83901008.00 HSA06 GENE8077 83901008.00 HSA06 GENE8078 84660384.00 HSA06 GENE8078 84660384.00 HSA06 GENE8079 84890488.00 HSA06 GENE2182 86190352.00 HSA06 GENE2182 86190352.00 HSA06 GENE2182 86190352.00 HSA06 GENE2183 87920544.00 HSA06 GENE2185 87989283.00 HSA06 GENE2185 87989280.00 HSA06 GENE2188 89802976.00 HSA06 GENE2189 89933936.00 HSA06 GENE13092 90034560.00 HSA06 <t< td=""><td>GENE20000 2353.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2170 2386.00 GENE2170 2386.00 GENE2171 2394.00 GENE2172 2394.00 GENE2172 2394.00 GENE2172 2492.00 GENE2072 2442.00 GENE2072 2442.00 GENE2175 2495.00 GENE2176 2475.00 GENE2175 2495.00 GENE2175 2495.00 GENE2175 2495.00 GENE2175 2506.00 GENE2177 2537.00 GENE2177 2537.00 GENE2179 2578.00 GENE2179 2578.00 GENE3078 2599.00 GENE3079 2611.00 GENE3080 2626.00 GENE3081 2649.00 GENE3081 2649.00</td><td>- GENES BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE3 - GENE3</td><th>065 068 72-E5 2484 168 170 172 2485 50 173 072 073 176 175 30-B24 075 177 076 179 075 177 077 076 179 079 081 184</th><td>CFA12 GENE1 CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CFA12</td></t<> <td>170$39750364.00$$172$$40440776.00$$2485$$40440776.00$$50$$42169652.00$$173$$42833724.00$$072$$43033916.00$$073$$43420272.00$$175$$43768880.00$$176$$44096944.00$$075$$45134936.00$$177$$45501128.00$$076$$46340776.00$$077$$46530752.00$$179$$46848728.00$$078$$47436484.00$$079$$47436484.00$$080$$48335272.00$$182$$48454332.00$$081$$48532096.00$$184$$49677760.00$$185$$49677760.00$$186$$49986632.00$$187$$50302420.00$$188$$51270988.00$$3092$$51400828.00$$3092$$514084.00$$089$$51730284.00$</td>	GENE20000 2353.00 BAC_372-E5 2356.00 GENE12484 2367.00 GENE2168 2376.00 GENE2170 2386.00 GENE2170 2386.00 GENE2170 2386.00 GENE2171 2394.00 GENE2172 2394.00 GENE2172 2394.00 GENE2172 2492.00 GENE2072 2442.00 GENE2072 2442.00 GENE2175 2495.00 GENE2176 2475.00 GENE2175 2495.00 GENE2175 2495.00 GENE2175 2495.00 GENE2175 2506.00 GENE2177 2537.00 GENE2177 2537.00 GENE2179 2578.00 GENE2179 2578.00 GENE3078 2599.00 GENE3079 2611.00 GENE3080 2626.00 GENE3081 2649.00 GENE3081 2649.00	- GENES BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE3 - GENE3	065 068 72-E5 2484 168 170 172 2485 50 173 072 073 176 175 30-B24 075 177 076 179 075 177 077 076 179 079 081 184	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CFA12	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 176 44096944.00 075 45134936.00 177 45501128.00 076 46340776.00 077 46530752.00 179 46848728.00 078 47436484.00 079 47436484.00 080 48335272.00 182 48454332.00 081 48532096.00 184 49677760.00 185 49677760.00 186 49986632.00 187 50302420.00 188 51270988.00 3092 51400828.00 3092 514084.00 089 51730284.00
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SER.3.073 80.779.4045.00 HS.406 GEN.2.175 80.1952.00 HS.406 GEN.2.176 80.1952.00 HS.406 GEN.2.177 82.074744.00 HS.406 GEN.2.177 84.69.944.00 HS.406 GEN.2.18 86.99.974.00 HS.406 GEN.2.18 87.69.976.00 HS.406 GEN.2.18 87.69.976.00 HS.406 GEN.2.18 89.09.977.00 HS.406 GEN.2.18 89.09.975.00 HS.406 GEN.2.18 89.09.975.00 HS.406 GEN.2.18 89.09.975.00 HS.406 GEN.2.199 90.3755.00 HS.406 GEN.2.199 99.7719.40.0 HS.406 GEN.2.199 99.7719.40.0 HS.406 GEN.2.2.19 10.0106.950.00	BAC.372-E5 2355.00 GENE12484 2367.00 GENE12484 2367.00 GENE2170 2386.00 GENE2170 2386.00 GENE2170 2386.00 GENE2170 2386.00 GENE2173 2442.00 GENE2173 2442.00 GENE2175 2442.00 GENE2175 2442.00 GENE2175 2442.00 GENE2175 2442.00 GENE2175 2455.00 GENE2175 2495.00 GENE2177 2537.00 GENE2077 2520.00 GENE2077 2578.00 GENE2077 2578.00 GENE2179 2578.00 GENE2182 2642.00 GENE2184 2699.00 GENE2185 2707.00 GENE2186 2707.00 GENE2186 2707.00 GENE2188 2773.00 GENE2188 2773.00 GENE2188 2773.00 GENE2188 2777.00	- GENES BAC_33 - GENE1 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE2 - GENE3 - GEN	065	CFA12 GENE1 CFA12 GENE1 CFA12 GENE2 CF	170 39750364.00 172 40440776.00 2485 40440776.00 50 42169652.00 173 42833724.00 072 43033916.00 073 43420272.00 175 43768880.00 177 45501128.00 076 46340776.00 077 46530752.00 177 45501128.00 078 47436484.00 080 4835272.00 182 48454332.00 081 48532096.00 185 49677760.00 185 49677760.00 186 49386632.00 187 50302420.00 188 51270988.00 190 51518048.00 090 51873528.00 192 52047100.00 193 5146108.00 094 57943048.00 093 57166108.00 094 57943048.00 095 61013648.00 096 635
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ERHEBNIZ 175 00730080.00 HSA06 ERHEDIZ 176 00730084.00 HSA06 ERHEDIZ 176 00730084.00 HSA06 ERHEDIZ 176 00730084.00 HSA06 ERHEDIZ 177 05275424.00 HSA06 ERHEDIZ 178 052759244.00 HSA06 ERHEDIZ 178 052759244.00 HSA06 ERHEDIZ 178 052759244.00 HSA06 ERHEDIZ 186 05275944.00 HSA06 ERHEDIZ 180 0527592.00 HSA06 ERHEDIZ 180 0527592.00 HSA06 ERHEDIZ 180 0527592.00 HSA06 ERHEDIZ 180 057552.00 HSA06 ERHEDIZ 190 057552.00 HSA06 ERHEDIZ 190 057552.00 HSA06 ERHEDIZ 190 057552.00 HSA06 ERHEDIZ 190 05564.00 HSA06 ER	BRC. 372-E5 2353.6.00 GENC. 2126 2356.00 GENE 12484 - GENE 12484 - GENE 12485 - GENE 2175 - GENE 2175 - GENE 2175 - GENE 2177 - CENE 2077 - GENE 2077 - GENE 2076 - GENE 2017 - GENE 2017 - GENE 2017 - ZST1.00 - GENE 2017 - ZST3.00 - GENE 2011 - GENE 2011 - GENE 2012 - GENE 2013 - GENE 2014 - GENE 2015 - ZEX0.00 - >	-GENES BAC_33 -GENE1 -GENE2 -GENE2 -GENE2 -GENE2 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -GENE2 -GENE3 -G	065 0 072-E5 0 174 0 175 0 173 0 174 0 175 0 176 0 177 0 178 0 179 0 171 0 175 0 176 0 177 0 178 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 180 0 181 0 182 0 183 0 184 0 185 0 186 0 187 0 188 0 </th <td>CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CF</td> <td>1170 39750364.00 1172 40440776.00 1173 42833724.00 1173 42833724.00 1173 42833724.00 1175 43033916.00 1175 43768880.00 1176 44096944.00 1075 45134936.00 1177 4550128.00 1076 46340776.00 1077 46530752.00 1179 4684728.00 1079 4736484.00 1079 4736484.00 1079 4736484.00 1081 48532096.00 1182 49677760.00 1282 48454332.00 1283 49677760.00 1284 49677760.00 1285 49677760.00 1285 49677760.00 1285 5127088.00 1290 5140828.00 1393 5140828.00 1393 51460828.00 1490 51873528.00 190 5187048.00 093 5745048.00 094 57943048.00</td>	CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CF	1170 39750364.00 1172 40440776.00 1173 42833724.00 1173 42833724.00 1173 42833724.00 1175 43033916.00 1175 43768880.00 1176 44096944.00 1075 45134936.00 1177 4550128.00 1076 46340776.00 1077 46530752.00 1179 4684728.00 1079 4736484.00 1079 4736484.00 1079 4736484.00 1081 48532096.00 1182 49677760.00 1282 48454332.00 1283 49677760.00 1284 49677760.00 1285 49677760.00 1285 49677760.00 1285 5127088.00 1290 5140828.00 1393 5140828.00 1393 51460828.00 1490 51873528.00 190 5187048.00 093 5745048.00 094 57943048.00
EHENENTY 500720040.00 HSANG EHEN2175 80720040.00 HSANG EHEN2175 80720040.00 HSANG EHEN2177 8075024.00 HSANG EHEN2177 8075024.00 HSANG EHEN2177 8095744.00 HSANG EHEN2177 8095744.00 HSANG EHEN2177 8095744.00 HSANG EHEN2177 8095744.00 HSANG EHEN2177 8095744.00 HSANG EHEN2177 8095744.00 HSANG EHEN2178 8075944.00 HSANG EHEN2129 8095744.00 HSANG EHEN2129 8095744.00 HSANG EHEN2129 90973850.00 HSANG EHEN2199 9073850.00 HSANG EHEN2199 9073850.00 HSANG EHEN2199 9073850.00 HSANG EHEN2199 9033550.00 HSANG EHEN2199 90771864.00 HSANG EHEN2191 10352752.00 HSANG EHEN2201 1045514.00 HSANG EHEN2201 1045514.00 HSANG EHEN2201 1045282.00 HSANG EHEN2201 1045282.00 HSANG EHEN2201 10352752.00 HSANG EHEN2201 1045282.00 HSANG EHEN2201 10352752.00 HSANG EHEN2201 10455142.00 HSANG EHEN2201 10455142.00 HSANG EHEN2201 1045282.00 HSANG EHEN2201 1152214.00 HSANG EHEN2201 115224.00 HSANG EHEN2201 115224.00 HSANG EHEN2201 1153299.00 HSANG EHEN2201 1153299.00 HSANG EHEN2201 1153299.00 HSANG EHEN2201 1153299.00 HSANG EHEN2201 1153299.00 HSANG EHEN2201 1153299.00 HS	BRC. 372-E5 2353.6.00 GENC. 2126 2356.00 GENC. 2126 2356.00 GENE 2148 - GENE 2176 2356.00 GENE 2175 2492.00 GENE 2175 2492.00 GENE 2175 2495.00 GENE 2175 2495.00 GENE 2175 2495.00 GENE 2175 2495.00 GENE 2175 2505.00 GENE 2175 2505.00 GENE 2175 2505.00 GENE 2075 2550.00 GENE 2075 2550.00 GENE 2076 2557.00 GENE 2076 2557.00 GENE 2077 2559.00 GENE 2078 2611.00 GENE 2078 2611.00 GENE 2081 2642.00 GENE 2185 2707.00 GENE 2185 2707.00 GENE 2186 2771.00 GENE 2186 2771.00 GENE 2186 2771.00 GENE 2186 2771.00 GENE 2189 2771.00<	-GENES BAC_33 -GENE1 -GENE2 -GENE2 -GENE2 -GENE2 -GENE2 -GENE2 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE3 -GENE2 -GENE3 -G	065 0 072-E5 0 174 0 175 0 173 0 174 0 075 0 176 0 177 0 178 0 179 0 171 0 175 0 176 0 177 0 178 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 179 0 180 0 181 0 182 0 183 0 184 0 184 0 184 0 184 0 185 0 </th <td>CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CF</td> <td>1170 39750364.00 1172 40440776.00 1173 42633724.00 1173 42633724.00 1175 43033916.00 1175 43768880.00 1176 44096944.00 1177 45501128.00 1177 45501128.00 1177 45501128.00 1177 45530720.00 1179 46848728.00 1179 46848728.00 1182 49677760.00 1182 49677760.00 1184 49677760.00 1185 49677760.00 1186 51270988.00 1187 50302420.00 1188 51270988.00 1189 51440828.00 3092 5148084.00 1190 51518048.00 1191 52047100.00 1192 52047100.00 1193 5145188.00 1194 55044780.00 1193 5145188.00 1194 5504470.00 1195 6103648.00 1196 61352524.00</td>	CFA12 GENE1 CFA12 GENE2 CFA12 GENE3 CF	1170 39750364.00 1172 40440776.00 1173 42633724.00 1173 42633724.00 1175 43033916.00 1175 43768880.00 1176 44096944.00 1177 45501128.00 1177 45501128.00 1177 45501128.00 1177 45530720.00 1179 46848728.00 1179 46848728.00 1182 49677760.00 1182 49677760.00 1184 49677760.00 1185 49677760.00 1186 51270988.00 1187 50302420.00 1188 51270988.00 1189 51440828.00 3092 5148084.00 1190 51518048.00 1191 52047100.00 1192 52047100.00 1193 5145188.00 1194 55044780.00 1193 5145188.00 1194 5504470.00 1195 6103648.00 1196 61352524.00

GENE4840 37457696.00 HSA1 GENE10169 81148432.00 HSA1	-GENE2252 - BAC_382-K4	0.00 4.00	-GENE2252 CFA12 GENE2252 3162403.00 BAC_382-K4 CFA12 GENE12465 3370194.00 CFA12 GENE12465 3370194.00 CFA12 GENE12465 3370194.00
GENE/976 0.00 HSH0 GENE2064 30029764.00 HSA0 GENE12465 30728534.00 HSA0 GENE12465 30728534.00 HSA0	GENE 12465 GENE 13054 - GENE 7970 	24.00 41.00	-GENE12465 CFM12 GENE13054 3621636.00 -GENE13054 CFA12 GENE2071 3743813.00 -GENE7970 CFA12 GENE7970 3775099.00 -GENE7972 CFA12 GENE7970 3775099.00
GENE2071 31190172.00 HSA0 GENE2071 31233408.00 HSA0 GENE7970 31233408.00 HSA0	GENE12466 - GENE2073 - GENE2074	51.00 63.00 76.00	-GENE12466
GENE2072 31606412.00 HSH0 GENE2073 31728522.00 HSA0 GENE12466 31783212.00 HSA0	GENE2004 GENE7973 - GENE2076 -	88.00 100.00	-GENE2007
GENE/972 31830080.00 HSH0 GENE2074 31899544.00 HSA0 GENE7973 32025500.00 HSA0	GENE7974 GENE13056 - GENE7982 -	113.00 125.00 134.00	-GENE/974
GENE/974 32106984.00 HSH0 GENE2076 32208562.00 HSA0 GENE13056 32332812.00 HSA0	GENE29900 GENE2077 GENE7979	144.00 148.00 151.00	-GENE2077 -GENE2077 -GENE2077 -GENE7979 -GENE7979 -GENE7979
GENE2077 32428450.00 HSH00 GENE2078 32484456.00 HSA00 GENE13057 32827564.00 HSA00	GENE 13 057 - GENE 13 058 - GENE 13 058 - GENE 7976 -	155.00 168.00 178.00	-GENE13057
GENE/9/9 3296/468.00 HSH0 GENE7980 33106316.00 HSA0 GENE13058 33286020.00 HSA0 GENE13058 33286020.00 HSA0	GENE2070 - GENE2071 - GENE2072 -	203.00 225.00	-GENE2076
GENE/982 33457746.00 HSA00 GENE13061 33801720.00 HSA00 GENE7985 33926216.00 HSA00	GENE2074 - GENE7985 - EST2A7	249.00 286.00 294.00	-GENE2074
GENE2087 34050184.00 HSA0 GENE7986 34261984.00 HSA0 GENE7987 34432752.00 HSA0	GENE13061 - GENE2087 - GENE2087 - GENE7986 -	315.00 333.00 343.00	-GENE13061 CFA12 GENE7986 6463540.00 -GENE2087 CFA12 GENE7987 6621839.00 -GENE7986 CFA12 GENE7988 6819997.00
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GENE2094 35489208.00 HSH00 GENE2095 35633632.00 HSA00 GENE7994 35734144.00 HSA00	GENE 13069 - GENE 13071 - GENE 2102 - GENE 2102 -	470.00 498.00 530.00	-GENE13069 -GENE13071 -GENE2102 CFA12 GENE2095 7654033.00 CFA12 GENE2095 770816.00 CFA12 GENE2096 7852774.00
GENE2096 35049504.00 HSH0 GENE13063 35934192.00 HSA0 GENE2097 36122672.00 HSA0 GENE2097 36122672.00 HSA0	GENE4840 - GENE2095 - CENE7092	577.00 584.00 595.00	-GENE4840 -GENE4840 -GENE2095 -CENE2095
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GENECOUS 3775576.00 HSH0 GENE13071 38128592.00 HSA0 GENE8004 38166216.00 HSA0 GENE8005 38166216.00 HSA0	GENES002 - GENES002 - GENE13070	747.00 751.00 759.00	-GENES002
GENE13072 38800376.00 HSA0 GENE13072 38800376.00 HSA0 GENE13073 39079788.00 HSA0	GENES004 - GENES004 - GENES005 -	768.00 776.00 785.00	-GENE10105
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GENE12471 39009500.00 HSH0 GENE8009 39920940.00 HSA0 GENE8010 41111992.00 HSA0 GENE8010 41111992.00 HSA0	GENE2100 - GENE2009 - GENE12471 - CENE2110	835.00 843.00 848.00	-GENE3009
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GENESO18 42672260.00 HSA0 GENESO18 42672260.00 HSA0 GENE2120 42711736.00 HSA0 GENESO19 42843332.00 HSA0	GENES010 - GENES011 - BBC 372-K13	1005.00 1010.00 1015.00	-GENESO10 -GENESO10 -GENESO11 -GENESO11 -GENESO11 -GENESO12
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GENE8023 43465136.00 HSA0 GENE2125 43534632.00 HSA0 GENE2125 43534632.00 HSA0	GENE2118 - GENE8017 - GENE8019 -	1047.00 1052.00 1054.00	-GENE2118
GENE2127 43804856.00 HSA00 GENE8026 43950008.00 HSA00 GENE2128 44019084.00 HSA00	GENECOTS GENE2114 GENE2122 GENES018	1085.00 1113.00 1132.00	-GENE2114 - CFA12 GENE2123 14914878.00 -GENE2122 - CFA12 GENE8024 14974892.00 CFA12 GENE2127 15205421.00 CFA12 GENE2026 15205421.00
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GENE13081 44244908.00 HSA0 GENE12474 44277056.00 HSA0 GENE12474 44277056.00 HSA0 GENE8032 46153816.00 HSA0	EST11G5 GENE2127 - GENE8028 -	1208.00 1218.00 1234.00	EST11G5 -GENE2127 -GENE2127 -GENE8028 -GENE8028 -GENE2127 -GENE217 -GENE217 -GENE217 -GENE217 -GENE217 -GENE217 -GENE217
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GENE2168 74130528.00 HSA00 GENE12484 74315688.00 HSA00 GENE8068 74473256.00 HSA00	GENE 13088 - GENE 13088 - GENE 10825 - GENE 8059 -	2105.00 2118.00 2135.00	-GENE13088 - CFA12 GENE8064 36229252.00 -GENE10825 - CFA12 GENE8065 36860424.00 -GENE8059 - CFA12 GENE2168 38419268.00
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GENE2173 79650480.00 HSA00 GENE8072 79908504.00 HSA00 GENE8073 80378048.00 HSA00	GENE12482 - GENE2165 - GENE3064 -	2285.00 2300.00 2306.00	-GENE12482
GENE2175 80619528.00 HSA00 GENE2176 80783064.00 HSA00 GENE8075 82450296.00 HSA00	GENE8065 - GENE8068 - BAC_372-E5	2320.00 2353.00 2356.00	-GENE8065 - CFA12 GENE2173 42833724.00 -GENE8068 - CFA12 GENE8072 43033916.00 CFA12 GENE8072 43033916.00 CFA12 GENE8073 43420272.00
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GENE8094 97044328.00 HSA00 GENE8097 99419432.00 HSA00 GENE2199 99771904.00 HSA00	GENE2186 - GENE2185 - GENE3826 -	2704.00 2707.00 2731.00	-GENE2186 -GENE2185 -GENE3826 -GENE3
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GENE2206 106600200.00 HSA0 GENE8105 106772600.00 HSA0 GENE2207 107032584.00 HSA0	GENE2194 - BAC_373-022 GENE13093 -	2865.00 2882.00 2908.00	-GENE2194 CFA12 GENE13096 61800636.00 BAC_373-022 CFA12 GENE2203 62422564.00 CFA12 GENE2103 62697680.00
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GENE2210 108048280.00HSA00 GENE12489 108116456.00HSA00 GENE8110 108490000.00HSA00	GENE8097 - GENE8097 - GENE13095 - GENE8098 -	2985.00 2997.00 3009.00	-GENE8097 -GENE13095 -GENE8098 -GENE8098 -GENE8098
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GENE8112 109277968.00 HSA00 GENE8113 109636480.00 HSA00 GENE8114 109736736.00 HSA00	GENE2201 - GENE13096 - GENE2203 -	3020.00 3049.00 3067.00	-GENE13096 -GENE13096 -GENE2203 -GENE2203 -GENE81102 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE8110 -GENE81 -G
GENE2210 109841920.00 HSA00 GENE8115 110011184.00 HSA00 GENE2217 110156800.00 HSA00 GENE2219 110156800.00 HSA00	GENE8102 - GENE8103 - GENE2205 -	3109.00 3120.00 3131.00	-GENE8103 -GENE8103 -GENE2205 -GENE2205 -GENE2206 -GENE2206
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GENE13100 111363904.00 HSA00 GENE2222 111543312.00 HSA00 GENE8122 111957344 00 HSA00	GENE 12409 - GENE 12409 - GENE 12490 - GENE 12490 -	3234.00 3257.00 3281.00	-GENE2209 -GENE12490 -GENE12490 -GENE8110 -GENE8110
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GENE2226 114323216.00 HSA00 GENE2227 116285560.00 HSA00 GENE8126 116466416 00 HSA00	GENEDIIS GENEBII2 GENEBII5 GENEDIIS	3331.00 3334.00 3350.00	-GENE8112GENE8112GENE8115GENE2216GENE2216GENE2216GENE2216GENE2216GENE2216GENE2216GENE2210GENE2100GENE2
GENE2228 116604648.00 HSA00 GENE8128 116642920.00 HSA00 GENE2252 131911480.00 HSA00	GENE2217 - GENE8114 - GENE10491	3373.00 3410.00 3440.00	-GENE2217 - CFA12 GENE2224 71202848.00 -GENE8114 - GENE12491 - CFA12 GENE8123 71480176.00 -GENE12491 - CFA12 GENE8123 71480176.00
GENE2280 144501952.00 HSA00 GENE8224 169872224.00 HSA00 GENE2327 169911552.00 HSA00	GENE2219 GENE8122 GENE2220	3443.00 3449.00 3455.00	-GENE2219 -GENE8122 -GENE8122 -GENE2220 -GENE220 -GENE2
GENE8225 170450448.00 HSA00 GENE250 89036128.00 HSA00 GENE464 190068928.00 HSA00	GENE2222 - GENE13098 - GENE11699	3468.00 3480.00 3489.00	-GENE2222 - CFA12 GENE2228 74882336.00 -GENE13098 CFA12 GENE3128 74904088.00 -GENE11699 CFA12 GENE3128 74904088.00 CFA12 GENE3224 74947728.00
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	GENE13100 - GENE8123 - GENE2224 -	3513.00 3536.00 3566.00	-GENE13100 -GENE8123 -GENE2224
	GENE2226 - GENE13101 - BAC_373-014	3614.00 3646.00 3657.00	- GENE2226 - GENE13101 BAC_373-014
	BAC_382-C12 GENE2327 - GENE8128 -	3665.00 3685.00 3691.00	BRC_382-C12 -GENE2327 -GENE8128
	GENE2227 - GENE8126 - GENE8225 -	3715.00 3732.00 3755.00	- GENE2227

RH MAP CFA13

GENE12608 GENE2793	98955344.00 HSA08 99126184.00 HSA08		0.00 26.00	-GENE12609	CFA13 GENE2793 CFA13 GENE8691	3403430.00 3529846.00
GENE2792 GENE8691	99127560.00 HSA08 99283016.00 HSA08	GENE2792	46.00 54.00	GENE2792 GENE12608	CFA13 GENE2795 CFA13 GENE12609	3793620.00 4011216.00
GENE2795 GENE12609 GENE2796	99918608.00 HSA08 100030576.00 HSA08		82.00 97.00	-GENE2795	CFA13 GENE2796 CFA13 GENE2797 CFA13 GENE8695	4011218.00 4341731.00 4623060.00
GENE2797 GENE8695	100242752.00 HSA08 100786304.00 HSA08	GENE2797 - GENE8696 -	112.00 117.00	-GENE2797	CFA13 GENE12610 CFA13 GENE8696	4834921.00 4909119.00
GENE12610 GENE8696	100821912.00 HSA08 100946576.00 HSA08	GENE12610 - GENE2799 -	124.00 131.00	-GENE12610	CFA13 GENE2799 CFA13 GENE12611	5022348.00 5144456.00
GENE2799 GENE8697	101106248.00 HSA08 101209088.00 HSA08	GENE8695 - GENE12611 - GENE12611 -	133.00 143.00	- GENE8695	CFA13 GENE8697 CFA13 GENE8698	5144456.00 5395966.00
GENE12611 GENE8698 GENE2801	101236944.00 HSH08 101496632.00 HSA08 101586048.00 HSA08		156.00	-GENE8698	CFA13 GENE2001 CFA13 GENE8699 CFA13 GENE8700	5395966.00 5539763.00 5947246.00
GENE8699 GENE8700	101686504.00 HSA08 102167840.00 HSA08	GENE2801 - GENE2804 -	163.00 179.00	-GENE2801	CFA13 GENE2804 CFA13 GENE2803	6434053.00 6434053.00
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GENE2806 GENE8705	103617352.00 HSA08 104105192.00 HSA08		189.00 191.00	- GENE 13131	CFA13 GENE2808 CFA13 GENE8705	7645757.00 7645757.00
GENE13131 GENE2808 GENE8706	104213472.00 HSH08 104221168.00 HSA08 104300000.00 HSA08		196.00	- GENE2806	CFH13 GENE8706 CFA13 GENE2809 CFR13 GENE8707	7767751.00 7882377.00 8184303.00
GENE2809 GENE8707	104388944.00 HSA08 104853648.00 HSA08		216.00 233.00	-GENE2809	CFA13 GENE2811 CFA13 GENE12612	8622988.00 8622988.00
GENE12612 GENE2811	105396448.00 HSA08 105459888.00 HSA08	GENE2811 - GENE12612 -	243.00 248.00	- GENE2811	CFA13 GENE2812 CFA13 GENE8710	9409438.00 10606993.00
GENE2812 GENE8710	106386224.00 HSA08 107719560.00 HSA08		267.00 278.00	-GENE2812	CFA13 GENE2814 CFA13 GENE8712	11864901.00 12176928.00
GENE2814 GENE8712 GENE2815	1091/1248.00 HSH08 109438064.00 HSA08 109751920 00 HSA08		295.00 320.00 337.00	-GENE8710	CFR13 GENE2815 CFR13 GENE2816 CFR13 GENE12613	12470822.00 12891755.00 12891755.00
GENE12613 GENE8714	110261936.00 HSA08 110311712.00 HSA08	GENE2815 - GENE8716 -	380.00 408.00	-GENE2815	CFA13 GENE8714 CFA13 GENE2817	12950117.00 13066172.00
GENE2816 GENE2817	110322232.00 HSA08 110486144.00 HSA08	GENE2816	414.00 420.00	- GENE2816	CFA13 GENE8716 CFA13 GENE402	13530104.00 14711390.00
GENE8716 GENE2819	110935728.00 HSA08 113305128.00 HSA08		423.00 455.00	-GENE8714	CFA13 GENE2819 CFA13 GENE2821	15610891.00 19039940.00
GENE2821 GENE2822	117616224.00 HSH06 117740176.00 HSA08 118142872.00 HSA08	BACB11	520.00 564.00	BACB11	CFR13 GENE8718 CFR13 GENE2822 CFR13 GENE2823	19039940.00 19930700.00 20676852.00
GENE2823 GENE2824	119348160.00 HSA08 120211720.00 HSA08		616.00 647.00	-GENE2821	CFA13 GENE2824 CFA13 GENE8722	21491744.00 21638036.00
GENE8722 GENE2825	120391592.00 HSA08 120539240.00 HSA08		660.00 676.00	-GENE2822	CFA13 GENE2825 CFA13 GENE8723	21638036.00 21789092.00
GENE8723 GENE2826	120713152.00 HSA08 120808144.00 HSA08	GENE8722 - GENE8722 - GENE2825 - CENE2824	692.00 699.00 702.00	-GENE8722	CFA13 GENE2826 CFA13 GENE12614	21860888.00 22276772.00
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GENE8725 GENE2828	121423568.00 HSA08 121607672.00 HSA08		728.00 732.00	-GENE2827	CFA13 GENE8724 CFA13 GENE8726	22276772.00 23144188.00
GENE8726 GENE8727	122597856.00 HSA08 124094528.00 HSA08	BAC_381-I3 GENE8725 -	735.00 742.00	BAC_381-I3 -GENE8725	CFA13 GENE8727 CFA13 GENE8728	24577360.00 24665190.00
GENE8728 GENE8729	124222376.00 HSA08 124410032.00 HSA08	BAC_381-G7 GENE8723 - CENE87234	745.00 776.00 794.00	BRC_381-67 -GENE8723 -GENE8724	CFA13 GENE8729 CFA13 GENE2832	24827060.00 24827060.00
GENE2032 GENE8730 GENE2833	124481496.00 HSH08 124614408.00 HSA08 124705992.00 HSA08	GENE0724	846.00 896.00	-GENE8726	CFR13 GENE8730 CFR13 GENE8731 CFR13 GENE2833	24961972.00 25080200.00 25080200.00
GENE8731 GENE2834	124745392.00 HSA08 124943600.00 HSA08	GENE8728 - GENE8729 -	919.00 922.00	-GENE8728	CFA13 GENE2834 CFA13 GENE8732	25244454.00 25244454.00
GENE8732 GENE2835	125028736.00 HSA08 125295480.00 HSA08	GENE2832 - GENE8730 -	928.00 933.00	-GENE2832 -GENE8730	CFA13 GENE2835 CFA13 GENE8733	25421060.00 25618024.00
GENE8733 GENE2836	125484656.00 HSA08 125551504.00 HSA08	GENE8731 - GENE2833 - OFNE2835	939.00 945.00	-GENE8731	CFA13 GENE2836 CFA13 GENE8734	25809776.00 26038750.00
GENE8734 GENE2837 GENE8735	125947360.00 HSA08 125987112.00 HSA08 126070688.00 HSA08	GENE2835 - GENE2834 - GENE2730	972.00 978.00	-GENE2834	CFR13 GENE2837 CFR13 GENE8735 CFR13 GENE2828	20119424.00 20119424.00 20398730 00
GENE2838 GENE8736	126401920.00 HSA08 128709160.00 HSA08	GENE20732 - GENE20733 - GENE2836 -	1001.00 1011.00	-GENE8733 -GENE2836	CFA13 GENE8736 CFA13 GENE2839	28217520.00 28423408.00
GENE2839 GENE8737	128916144.00 HSA08 130321400.00 HSA08	GENE2837 - GENE8734 -	1020.00 1023.00	-GENE2837	CFA13 GENE8737 CFA13 GENE2840	29673920.00 29673920.00
GENE2840 GENE8738	130717952.00 HSA08 130871512.00 HSA08	GENE2838 - GENE8735 -	1033.00 1052.00	-GENE2838	CFA13 GENE8738 CFA13 GENE8739	30031844.00 30322912.00
GENE2841 GENE8739 GENE2840	131149000.00 HSA08 131264496.00 HSA08 131851616 00 HSA08	GENE8736 - GENE2839 - BOC 015	1102.00 1123.00 1157.00	-GENE2839 BACG15	CFR13 GENE2841 CFR13 GENE2842 CFR13 GENE2842	30322912.00 30849480.00 31684024 00
GENE2042 GENE8740 GENE2843	132924496.00 HSA08 133013192.00 HSA08	GENE2842 - GENE2842 - GENE8738 -	1160.00	-GENE2842 -GENE8738	CFA13 GENE2043 CFA13 GENE8740 CFA13 GENE2844	31684024.00 31684024.00 32288046.00
GENE2844 GENE8742	133690680.00 HSA08 133767464.00 HSA08	GENE8737 - GENE2840 -	1186.00 1197.00	-GENE8737 -GENE2840	CFA13 GENE8742 CFA13 GENE2845	32362776.00 32442000.00
GENE2845 GENE2846	133849808.00 HSA08 134195832.00 HSA08	GENE8739 - GENE2841 -	1225.00 1234.00	-GENE8739 -GENE2841	CFA13 GENE2846 CFA13 GENE8744	32744596.00 32784400.00
GENE8744 GENE2847	134248464.00 HSA08 134428032.00 HSA08	GENE2843 - GENE8740 - GENE2847	1263.00 1290.00 1317.00	-GENE2843 -GENE8740 -GENE2847	CFA13 GENE2847 CFA13 GENE8745	32936136.00 33159338.00
GENE2848 GENE8746	135619904.00 HSA08 135834624.00 HSA08	GENE2848 - GENE2848 - GENE2846 -	1331.00	-GENE2848 -GENE2848	CFR13 GENE2040 CFR13 GENE8746 CFR13 GENE2849	34024488.00 34619040.00
GENE2849 GENE8747	136579776.00 HSA08 139115328.00 HSA08	GENE2844 - GENE2845 -	1351.00 1358.00	-GENE2844 -GENE2845	CFA13 GENE8747 CFA13 GENE2850	36488916.00 36488916.00
GENE2850 GENE8748	139247664.00 HSA08 139644848.00 HSA08	GENE8742 - GENE8744 -	1361.00 1373.00	-GENE8742 -GENE8744	CFA13 GENE8748 CFA13 GENE8749	36865520.00 38280040.00
GENE8749 GENE13132	141512784.00 HSA08 141871296.00 HSA08	GENE8745 - GENE8746 - R0C - K13	1383.00 1416.00 1423.00	-GENE8745 -GENE8746 B00 -K13	CFA13 GENE13132 CFA13 GENE8750	38579724.00 38734816.00
GENE8751 GENE2853	142220336.00 HSA08 142220336.00 HSA08	GENE2849 - BACD13	1427.00	-GENE2849 BACD13	CFA13 GENE2000 CFA13 GENE8751 CFA13 GENE8753	38825028.00 39569408.00
GENE8753 GENE13134	143255776.00 HSA08 143459424.00 HSA08	GENE8747 - GENE2850 -	1470.00 1474.00	-GENE8747 -GENE2850	CFA13 GENE13134 CFA13 GENE8754	39713576.00 39885268.00
GENE8754 GENE8755	143810080.00 HSA08 144208064.00 HSA08	GENE8748 - GENE8749 - GENE8749 -	1490.00 1538.00	-GENE8748 - -GENE8749	CFA13 GENE8755 CFA13 GENE2859	40055836.00 40343188.00
GENE2059 GENE13135 GENE2863	144750160.00 HSH08 144776448.00 HSA08 145124784.00 HSA08	GENE13132 - GENE13132 - GENE8751 -	1563.00	-GENE13132 -GENE8751	CFR13 GENE13135 CFR13 GENE2863 CFR13 GENE8759	40380920.00 40620260.00 40728272.00
GENE8759 GENE13137	145256880.00 HSA08 145483552.00 HSA08	GENE8750 - GENE2853 -	1592.00 1595.00	-GENE8750 -GENE2853	CFA13 GENE7926 CFA13 GENE13137	40772352.00 40820120.00
GENE8762 GENE2865	145682384.00 HSA08 145726656.00 HSA08	GENE8753 - GENE13134 -	1630.00 1645.00	-GENE8753 -GENE13134	CFA13 GENE8762 CFA13 GENE2865	40995380.00 41031592.00
GENE8763 GENE2866 CENE2867	145937920.00 HSA08 146034912.00 HSA08	GENE8754 - GENE13135 - CENE8759	1648.00 1652.00 1655.00	-GENE8754 -GENE13135 -GENE8759	CFA13 GENE8763 CFA13 GENE2866	41174692.00 41259620.00 41224128 00
GENE6142 GENE6142 GENE402	78637352.00 HSA01 163432480.00 HSA01	-GENE20755 - GENE20755 - GENE20755 -	1667.00	-GENETOTOS	CFA13 GENE2007 CFA13 GENE6988 CFA13 GENE10372	41365864.00 41463912.00
GENE7926 GENE6988	12622292.00 HSA06 31467408.00 HSA03	GENE2859 - GENE2863 -	1707.00 1729.00	-GENE2859 -GENE2863	CFA13 GENE4486 CFA13 GENE10371	41485724.00 41564596.00
GENE10371 GENE4486	76506088.00 HSA15 76596848.00 HSA15	GENE 13137 - GENE 7327 - GENE 7327 -	1741.00 1767.00	-GENE13137 -GENE7327	CFA13 GENE7327 CFA13 GENE7372	41610200.00 41871632.00
GENE10372 GENE7392 GENE7397	76609408.00 HSA15 59443140.00 HSA11	GENE22065 - GENE22065 - GENE8763 - GENE8762 -	1782.00	- GENE2865 - - GENE8763 - - GENE8763 -	CFR13 GENE1471 CFR13 GENE7373 CED13 CENE1473	42009648.00 42167000.00 42659820.00
GENE7372 GENE1471	41441036.00 HSA04 41661348.00 HSA04	GENE2866 - GENE6988 -	1799.00 1802.00	-GENE2866 -GENE6988	CFA13 GENE7518 CFA13 GENE7375	44210372.00 44281648.00
GENE7373 GENE1473	41856736.00 HSA04 42516360.00 HSA04	GENE10371 - GENE10372 -	1808.00 1818.00	-GENE10371 -GENE10372	CFA13 GENE12323 CFA13 GENE1474	44331524.00 44331524.00
GENE7375 GENE12323	44545424.00 HSA04 44633748.00 HSA04	GENE4486 - GENE2867 - GENE7372	1832.00 1845.00 1855.00	-GENE4486 -GENE2867 -GENE7372	CFA13 GENE7376 CFA13 GENE12324	45290912.00 45499328.00
GENE1474 GENE7376 GENE12324	45015666.00 HSH04 45958364.00 HSA04 46220960.00 HSA04	GENE7372 - GENE1471 - GENE7373 -	1874.00	-GENE1471 -GENE7373	CFR13 GENE1377 CFR13 GENE1477 CFR13 GENE1478	45365305.00 46349128.00 46349128.00
GENE7377 GENE1477	46652164.00 HSA04 47320584.00 HSA04	GENE1473 - BACH24	1925.00 1958.00	-GENE1473 BACH24	CFA13 GENE1479 CFA13 GENE1480	46969104.00 47141636.00
GENE1478 GENE1479 GENE1400	47429796.00 HSA04 47853376.00 HSA04 48027644 00 HSA04	GENE12323 - GENE7518 -	1968.00 1974.00 1981.00	-GENE 12323 -GENE 7518 -GENE 7375	CFR13 GENE1481 CFR13 GENE1482 CFR12 OFFETER	47355548.00 47493300.00
GENE 1481 GENE 1482	48295064.00 HSA04 48503612.00 HSA04	GENEZ375	2001.00 2004.00	-GENE7377 -GENE7376	CFA13 GENE1484 CFA13 GENE7385	48100200.00 48100200.00
GENE7383 GENE1484	48774308.00 HSA04 52815144.00 HSA04	GENE 12324 - GENE 12324 - GENE 1474 -	2015.00 2042.00	-GENE12324 -GENE1474	CFA13 GENE1485 CFA13 GENE1486	48503824.00 48657688.00
GENE7385 GENE1485	52861144.00 HSA04 53372584.00 HSA04	GENE 1482	2086.00 2113.00	-GENE7383 -GENE1482	CFA13 GENE1487 CFA13 GENE7388	48920528.00 49185200.00
GENE 1486 GENE 1487 GENE 7389	53573656.00 HSA04 53727128.00 HSA04 54195708.00 HSA04	GENE7388 - GENE1477 -	2200.00	-GENE 1477 -GENE 1479	CFR13 GENE1488 CFR13 GENE7390 CFR13 GENE7394	49260712.00 49891236.00 50575720.00
GENE1488 GENE7390	54305884.00 HSA04 55070112.00 HSA04	GENE 1481 GENE 1478	2228.00 2232.00	-GENE1481 -GENE1478	CFA13 GENE1491 CFA13 GENE7393	50575720.00 50851220.00
GENE7391 GENE1491	55858080.00 HSA04 55884856.00 HSA04	GENE 1480 - GENE 1484 -	2241.00 2266.00 2272.00	-GENE 1480 -GENE 1484 -GENE 7385	CFA13 GENE1492 CFA13 GENE7392 CF012 OFNE1492	50851220.00 50851220.00
GENE 1492 GENE 7393 GENE 1493	56257612.00 HSA04 56386864.00 HSA04	BAC_381-E2	2287.00	BAC_381-E2 -GENE1485	CFA13 GENE1493 CFA13 GENE1494 CFA13 GENE7395	50904096.00 51358024.00 51595840.00
GENE1494 GENE7395	56761568.00 HSA04 57011704.00 HSA04	GENE 1486 GENE 1487	2300.00 2321.00	-GENE1486 -GENE1487	CFA13 GENE1495 CFA13 GENE7396	51595840.00 51595840.00
GENE1495 GENE7396	57105068.00 HSA04 57191364.00 HSA04	GENE1488 - GENE7390 -	2334.00 2337.00	-GENE1488 -GENE7390	CFA13 GENE1496 CFA13 GENE12982	51833696.00 51919000.00
GENE1496 GENE12982 GENE7298	57283160.00 HSA04 57431960.00 HSA04 57709136 00 HSA04	GENE7393 - BAC_372-09	2360.00 2367.00 2371.00	BAC_372-09 -GENE1493	CFH13 GENE7398 CFA13 GENE1498 CFA13 GENE7300	52176208.00 52289280.00 56599656 00
GENE1498 GENE7399	57805016.00 HSA04 62936108.00 HSA04	GENE1494 - GENE6142 -	2374.00 2377.00	-GENE1494 -GENE6142	CFA13 GENE7400 CFA13 GENE1500	58434744.00 59259752.00
GENE7400 GENE1500	65168888.00 HSA04 66271980.00 HSA04	GENE7391 - GENE1491 -	2384.00 2395.00	-GENE7391 -GENE1491	CFA13 GENE7401 CFA13 GENE1501	59562284.00 61234984.00
GENE7401 GENE1501 GENE1500	66540824.00 HSA04 68382656.00 HSA04 68517592 44 HSA04	GENE 1492 - GENE 7392 -	2409.00 2420.00 2432.00	-GENE 1492 -GENE 7392 -GENE 7395	CFR13 GENE1502 CFR13 GENE7403 CFR13 GENE7403	61234984.00 61397676.00 61397676.00
GENE1502 GENE7403 GENE1503	68517592.00 HSH04 68612680.00 HSA04 68710752.00 HSA04	GENE7395 - GENE1495 - GENE7396 -	2432.00 2445.00 2457.00	-GENE7395 - -GENE1495 - -GENE7396 -	CFH13 GENES616 CFA13 GENE1503 CFA13 GENE12983	61397676.00 61548384.00 61548384.00
GENE12983 GENE1504	68817560.00 HSA04 69097312.00 HSA04	GENE 12982 - GENE 1496 -	2464.00 2468.00	-GENE 12982 -GENE 1496	CFA13 GENE1504 CFA13 GENE7406	61877372.00 61877372.00
GENE 15 05 GENE 74 06	69225680.00 HSA04 69316408.00 HSA04	GENE7398 - GENE1498 -	2487.00 2506.00	-GENE7398 -GENE1498	CFA13 GENE1505 CFA13 GENE7407	61877372.00 62403560.00
GENE7407 GENE7410 GENE7414	70132296.00 HSA04 71384632.00 HSA04 71506560.00 HSA04	GENE7399 - BAC_381-G1	2549.00 2569.00 2576.00	BAC_381-G1 -GENE7400	CFR13 GENE7410 CFR13 GENE7411 CFR13 GENE7514	62764392.00 62764392.00 62908784 00
GENE1511 GENE7412	71591064.00 HSA04 71654736.00 HSA04	GENE7400 GENE7401 GENE1500	2580.00 2583.00	-GENE7401 -GENE1500	CFA13 GENE7412 CFA13 GENE7413	62957372.00 63109856.00
GENE7413 GENE7414	71973640.00 HSA04 72310752.00 HSA04	GENE 1501 - GENE 7403 -	2609.00 2612.00	- GENE1501 - GENE7403	CFA13 GENE7414 CFA13 GENE12326	63336956.00 63842700.00
GENE1515 GENE12326 GENE7446	72897464.00 HSA04 72903752.00 HSA04 73460072 00 HSA04	GENE 1502 - GENE 1503 -	2615.00 2623.00 2631.00	-GENE 1502 -GENE 1503 -GENE 1504	CFH13 GENE1515 CFA13 GENE7416 CFA13 GENE7416	63947928.00 64246656.00 65052556 00
GENE 7416 GENE 1517 GENE 7417	74218624.00 HSA04 74397048.00 HSA04	GENE 15 04 - GENE 74 06 - BAC 380-N4	2639.00 2642.00	-GENE7406 BAC_380-N4	CFA13 GENE7417 CFA13 GENE1519	65053556.00 65053556.00 65484624.00
GENE7418 GENE7419	74735792.00 HSA04 74913248.00 HSA04	GENE7407 - GENE12983 -	2646.00 2660.00	-GENE7407 -GENE12983	CFA13 GENE7419 CFA13 GENE7418	65484624.00 65484624.00
GENE1519 GENE7420	75073136.00 HSA04 75186120.00 HSA04	GENE1505 - GENE5616 -	2674.00 2686.00	-GENE1505 -GENE5616	CFA13 GENE7420 CFA13 GENE7422	65701664.00 65899208.00
GENE7422 GENE1522 GENE7400	75556880.00 HSA04 75714304.00 HSA04 75782016 00 HSA04	GENE7414 - GENE7414 - GENE7413 -	2694.00 2698.00 2701.00	-GENE7413 -GENE1511	CFR13 GENE1522 CFR13 GENE7423 CFR02 CENEC142	66057528.00 66057528.00
GENE7518 GENE5616	140335664.00 HSA04 25887260.00 HSA02	GENETATI	2717.00 2735.00	-GENE7410 -GENE7411	STRVE GENEO142	.0007004.00
		GENE7416 - GENE7412 -	2762.00 2782.00	- GENE7416 - GENE7412		
		GENE 1515 - GENE 12326 -	2786.00 2791.00 2804.00	-GENE 1515 -GENE 12326 -GENE 1517		
		GENE 1517 - GENE 7417 - GENE 7420 -	2813.00 2822.00	-GENE7417 -GENE7420		
		GENE 1519 - GENE 7419 -	2831.00 2848.00	- GENE1519 - GENE7419		
		GENE7418 - GENE1522 -	2860.00 2876.00	- GENE7418 - GENE1522 - GENE7423		
		GENE7423 - GENE7422 -	2888.00 2904.00	-GENE7423		

RH MAP CFA14

GENE5614 26572220.00 HSA22 GENE2552 127007072.00 HSA17 GENE7712 80459472.00 HSA05 GENE7778 122275784.00 HSA05	GENE6456 - GENE549 - GENE6454 - GENE6454 -	0.00 7.00 12.00 23.00	- GENE6456	CFA38 <u>GENE6430</u> CFA11 <u>GENE7778</u> CFA03 <u>GENE7712</u> CF014 CENE6456	15717461.00 22551920.00 29033340.00 3172407.00
GENE412 166533184.00 HSA01 GENE6360 181172128.00 HSA01 GENE6430 214679040.00 HSA01 GENE6430 225087584.00 HSA01	GENE588 - GENE6430 - CFOR12A03 - GENE589 -	33.00 45.00 52.00 65.00	- GENE588 - GENE6430 CFOR12A03 - GENE589	CFA14 GENE549 CFA14 GENE6454 CFA14 GENE547 CFA14 GENE588	3251727.00 3408341.00 3499026.00 3778655.00
GENE6454 225221280.00 HSA01 GENE549 225483392.00 HSA01 GENE6456 225570288.00 HSA01 GENE589 244956448.00 HSA01	BAC_416-B18 	69.00 74.00 76.00 83.00	BAC_416-B18 - GENE590 - GENE6496 - GENE7778	CFA14 GENE589 CFA14 GENE6496 CFA14 GENE590 CFA14 GENE6497	4112226.00 4729152.00 4950669.00 5369911.00
GENE6496 245160256.00 HSA01 GENE590 245299664.00 HSA01 GENE6497 245779792.00 HSA01 GENE588 45082868.00 HSA10	GENE6497 - GENE8464 - GENE2566 - GENE12567 -	100.00 113.00 117.00 127.00	- GENE6497	CFA14 GENE8464 CFA14 GENE2566 CFA14 GENE12567 CFA14 GENE8463	5697750.00 5805677.00 5951900.00 6422356.00
GENE9254 126929648.00 HSA10 GENE8928 112736112.00 HSA09 GENE6706 113183776.00 HSA02		145.00 162.00 174.00	-GENE8463	CFA14 GENE8462 CFA14 GENE12566 CFA14 GENE12566 CFA14 GENE2564	6808904.00 7074536.00 7074536.00
GENE8246 7227020.00 HSH07 GENE8248 7854749.00 HSA07 GENE2351 8011863.00 HSA07 GENE8249 10822685.00 HSA07		179.00 184.00 189.00 198.00	-GENE12565	CFA14 GENE8461 CFA14 GENE12565 CFA14 GENE2563 CFA14 GENE8460	7317548.00 7544906.00 7676669.00 8230497.00
GENE2352 11194007.00 HSA07 GENE2353 12014883.00 HSA07 GENE8250 12019732.00 HSA07 GENE12516 12139986.00 HSA07		201.00 208.00 221.00 228.00	-GENE2563	CFA14 GENE2562 CFA14 GENE8459 CFA14 GENE2561 CFA14 GENE8458	8230497.00 8382277.00 8559136.00 8774211.00
GENE8251 12361946.00 HSA07 GENE2354 13718888.00 HSA07 GENE8252 14128107.00 HSA07 GENE8253 16243675.00 HSA07		233.00 240.00 252.00 262.00	- GENE2561	CFA14 GENE5614 CFA14 GENE2560 CFA14 GENE8457 CFA14 GENE2559	8886095.00 8886095.00 8936970.00 8989405.00
GENE2356 16410364.00 HSA07 GENE2357 16585027.00 HSA07 GENE2358 16982596.00 HSA07 GENE12517 17093632.00 HSA07		267.00 271.00 276.00 281.00	- GENE2560	CFA14 GENE2558 CFA14 GENE8454 CFA14 GENE2557 CFA14 GENE2556	9258929.00 9258929.00 9258929.00 9395400.00
GENE8256 17582428.00 HSA07 GENE8257 18618552.00 HSA07 GENE12518 19492626.00 HSA07 GENE2361 19922912.00 HSA07	-GENE2557 - -GENE2556 - -GENE8453 - -GENE8453 - -GENE2555 -	283.00 291.00 293.00 296.00	- GENE2557	CFA14 GENE8453 CFA14 GENE2555 CFA14 GENE8451 CFA14 GENE2553	9561110.00 9703518.00 10063147.00 10173680.00
GENE2362 20015068.00 HSA07 GENE8259 20089332.00 HSA07 GENE8260 20442330.00 HSA07 GENE8260 20536800.00 HSA07	-GENE8451 - -GENE2553 - -GENE8450 - -GENE2552 -	300.00 305.00 313.00 320.00	-GENE8451	CFA14 GENE8450 CFA14 GENE2552 CFA14 GENE12564 CFA14 GENE8449	10173680.00 10304479.00 10347510.00 10347510.00
GENE2365 21227176.00 HSA07 GENE8262 21298134.00 HSA07 GENE8263 21937344.00 HSA07 GENE8263 21937344.00 HSA07 GENE3266 22511000.00 HSA07	-GENE8448 - -GENE2551 - -GENE12564 - -GENE8449 -	328.00 333.00 338.00 340.00	-GENE8448	CFA14 GENE2551 CFA14 GENE8448 CFA14 GENE2549 CFD14 GENE2549	10412940.00 10496409.00 10583234.00 10619653.00
GENE2366 22594758.00 HSA07 GENE2368 23041372.00 HSA07 GENE2368 23131262.00 HSA07 GENE8266 23131262.00 HSA07	-GENE2549 - -GENE2548 - -GENE3546 - -GENE3546 -	346.00 354.00 356.00 369.00	-GENE2549	CFA14 GENE2548 CFA14 GENE2546 CFA14 GENE2546 CFA14 GENE2546	10729920.00 11398605.00 13293458.00
GENE8267 23393006.00 HSA07 GENE2370 23493564.00 HSA07 GENE2371 24468964.00 HSA07 GENE2371 24468964.00 HSA07	-GENE2545 - -GENE36443 - -GENE36443 - -GENE2543 - -GENE3640 -	408.00 421.00 451.00 456.00	-GENE2545	CFA14 GENE2543 CFA14 GENE8440 CFA14 GENE8465 CFA14 GENE8365	14517120.00 14517120.00 15618872.00
GENE2372 24615270.00 HSA07 GENE2372 24615270.00 HSA07 GENE2373 25007836.00 HSA07 GENE8271 25444244.00 HSA07	BAC_382-M18 /GENE8365 - /GENE2469 -	473.00 481.00 484.00	BAC_382-M18 -GENE3865 -GENE2469 -GENE2469 -GENE2470	CFA14 GENE2470 CFA14 GENE2470 CFA14 GENE12550 CFA14 GENE2471	16125706.00 16125706.00 16125706.00 16446176.00
GENE2374 25966240.00 HSH07 GENE12522 25982340.00 HSA07 GENE2375 26145932.00 HSA07 GENE8273 26279448.00 HSA07		492.00 492.00 498.00 509.00	-GENE24710 -GENE12550	CFA14 GENE8369 CFA14 GENE8370 CFA14 GENE2473 CFA14 GENE2474	1660/381.00 16999404.00 17318908.00 18681204.00
GENE2376 26319804.00 HSA07 GENE2377 26450766.00 HSA07 GENE8275 26875072.00 HSA07 GENE2378 26902804.00 HSA07		527.00 557.00 595.00 598.00	-GENE8370	CFA14 GENE8372 CFA14 GENE2475 CFA14 GENE8373 CFA14 GENE2477	18757432.00 18847656.00 19439348.00 20244368.00
GENE12523 27025492.00 HSA07 GENE2379 27312530.00 HSA07 GENE8277 27612432.00 HSA07 GENE2380 28217140.00 HSA07	-GENE2475 - -GENE3373 - -GENE3376 - -GENE3376 -	600.00 605.00 610.00 615.00	-GENE2475	CFA14 GENE8376 CFA14 GENE2479 CFA14 GENE2480 CFA14 GENE8378	20631388.00 20631388.00 20864800.00 21152912.00
GENE8278 28847276.00 HSA07 GENE2381 29277458.00 HSA07 GENE2382 29530100.00 HSA07 GENE2383 29695164.00 HSA07	-GENE2479 - -GENE7712 - -GENE2480 - -GENE8378 -	620.00 627.00 632.00 635.00	- GENE2479	CFA14 GENE8379 CFA14 GENE2482 CFA14 GENE8380 CFA14 GENE2483	21324680.00 21512988.00 21958096.00 22131120.00
GENE8280 29702320.00 HSA07 GENE12524 29799948.00 HSA07 GENE8281 29836784.00 HSA07 GENE2384 29927656.00 HSA07	-GENE8379 - -GENE2482 - BAC_372-I9 -GENE8380 -	642.00 647.00 655.00 671.00	- GENE8379	CFA14 GENE8381 CFA14 GENE2484 CFA14 GENE8382 CFA14 GENE2485	22430064.00 22588172.00 22588172.00 23025886.00
GENE8282 30105316.00 HSA07 GENE12525 30152960.00 HSA07 GENE2386 30178514.00 HSA07 GENE8283 30233028.00 HSA07	-GENE2483 - -GENE3381 - -GENE3381 - -GENE2484 - -GENE3382 -	674.00 676.00 684.00 686.00	- GENE2483	CFA14 GENE2486 CFA14 GENE8383 CFA14 GENE12552 CFA14 GENE8384	23025886.00 23025886.00 23025886.00 23588176.00
GENE8284 30407134.00 HSA07 GENE12527 30692944.00 HSA07 GENE8286 30757300.00 HSA07 GENE2389 30874036.00 HSA07		696.00 699.00 706.00 711.00	- GENE2485	CFA14 GENE8385 CFA14 GENE2488 CFA14 GENE2489 CFA14 GENE8388	23588176.00 23588176.00 24627136.00 25267554.00
GENE9140 31012804.00 HSA07 GENE8287 31122600.00 HSA07 GENE8288 31489314.00 HSA07 GENE2391 31609264.00 HSA07	-GENE12552 - BAC_375-E19 -GENE8385 - -GENE2488 -	716.00 724.00 729.00 732.00	- GENE 12552	CFA14 GENE8246 CFA14 GENE8248 CFA14 GENE8251 CFA14 GENE8249	25643156.00 26244302.00 26244302.00 28587032.00
GENE8289 31991152.00 HSA07 GENE2393 32262774.00 HSA07 GENE2392 32269108.00 HSA07 GENE8290 32354652.00 HSA07	-GENE2489 - -GENE3388 - 'GENE3246 - 'GENE3246 -	737.00 747.00 752.00 772.00	-GENE2489	CFA14 GENE2352 CFA14 GENE9254 CFA14 GENE8250 CFA14 GENE8250	28812876.00 29295022.00 29687542.00 29769504.00
GENE8291 32660648.00 HSA07 GENE2394 32821414.00 HSA07 GENE8292 33315678.00 HSA07 GENE8293 33752072.00 HSA07	-GENE2351 - -GENE9254 - -GENE9253 - -GENE2353 - -GENE2352 -	781.00 828.00 837.00 848.00	-GENE2351	CFA14 GENE2353 CFA14 GENE8251 CFA14 GENE2354 CFA14 GENE2354 CFB14 GENE8252	29859000.00 30000002.00 31278782.00 31665816.00
GENE2396 34496364.00 HSA07 GENE8294 34619976.00 HSA07 GENE2398 35031172.00 HSA07 GENE2398 35451696.00 HSA07		853.00 867.00 872.00 872.00	-GENE8249 -GENE8251 -GENE12516 -GENE8250	CFA14 GENE8928 CFA14 GENE8253 CFA14 GENE2356 CFA14 GENE2356	33114034.00 33672652.00 33672652.00 33841368.00
GENE2399 35611548.00 HSA07 GENE2400 35934932.00 HSA07 GENE2401 36076056.00 HSA07 GENE2401 36076056.00 HSA07	BAC_382-K2 	896.00 910.00 924.00 932.00	BAC_382-K2 -GENE2354 -GENE8252 BBC 385-C9	CFA14 GENE65706 CFA14 GENE12517 CFA14 GENE2358 CF014 GENE2358	34148152.00 34148152.00 34148152.00 34148152.00
GENE8300 37095192.00 HSA07 GENE8300 37095192.00 HSA07 GENE2470 85566664.00 HSA07 GENE8365 86027504.00 HSA07	- GENES928 - GENES928 - GENES253 - GENES256 - GENES257 -	952.00 957.00 962.00	- GENE8928 - GENE8928 - GENE8253 - GENE2356 - GENE2357	CFA14 GENE8257 CFA14 GENE8257 CFA14 GENE12518 CFA14 GENE2261	35695600.00 36517224.00 36788844.00
GENE2469 86439312.00 HSH07 GENE12550 86661952.00 HSA07 GENE2471 87071160.00 HSA07 GENE8369 87147520.00 HSA07	BAC_380-F10 GENE6706 - GENE2357 - GENE2356	979.00 987.00 993.00	BAC_380-F10 -GENE6706 -GENE2357	CFA14 GENE82562 CFA14 GENE8260 CFA14 GENE8260 CFA14 GENE2363	37004476.00 37241648.00 37309052.00
GENE2473 88034808.00 HSA07 GENE2474 88376304.00 HSA07 GENE8372 89549112.00 HSA07 GENE8372 89549112.00 HSA07		1007.00 1009.00 1049.00 1058.00	-GENE12517	CFA14 GENE2365 CFA14 GENE8263 CFA14 GENE8263 CFA14 GENE8264	38254184.00 38605396.00 39088356.00
GENE2373 90286456.00 HSA07 GENE2373 91282160.00 HSA07 GENE2376 91282160.00 HSA07 GENE3376 91638872.00 HSA07		1072.00 1081.00 1086.00 1097.00	-GENE2362 -GENE2363 -GENE3260 -GENE3259	CFA14 GENE2368 CFA14 GENE8266 CFA14 GENE8266 CFA14 GENE2369	39545200.00 39545200.00 39545200.00 39728688.00
GENE2480 92015216.00 HSA07 GENE8378 92371856.00 HSA07 GENE8379 92552072.00 HSA07 GENE8379 92552072.00 HSA07	-GENE8262 - -GENE2365 - -GENE9291 - -GENE9291 -	1111.00 1113.00 1118.00 1121.00	-GENE8262 -GENE2365 -GENE9291 -GENE8263	CFA14 GENE2370 CFA14 GENE2269 CFA14 GENE2269 CFA14 GENE2371 CFB14 GENE2372	39927696.00 40789768.00 40789768.00 40789768.00
GENE2485 93074432.00 HSA07 GENE8380 93146952.00 HSA07 GENE2483 93244624.00 HSA07 GENE2483 93244624.00 HSA07		1126.00 1128.00 1141.00 1146.00	-GENE8264 -GENE2366 -GENE2368 -GENE3266	CFA14 GENE2373 CFA14 GENE8271 CFA14 GENE8271 CFA14 GENE2374 CFB14 GENE12522	41357944.00 41357944.00 42045712.00 42045712.00
GENE2484 93796656.00 HSA07 GENE8382 93864448.00 HSA07 GENE2488 94284752.00 HSA07 GENE2488 94284752.00 HSA07		1152.00 1159.00 1162.00 1170.00	-GENE8267 -GENE8269 -GENE2370 -GENE2373	CFA14 GENE2375 CFA14 GENE8273 CFA14 GENE2377 CFA14 GENE2377 CFA14 GENE2376	42149336.00 42315000.00 42432768.00 42432768.00
GENE8383 94557696.00 HSA07 GENE2486 94652544.00 HSA07 GENE8384 94744880.00 HSA07 GENE8385 9538624.00 HSA07		1176.00 1178.00 1187.00 1244.00	-GENE2372 -GENE2371 -GENE2369 BBC: 380-B4	CFA14 GENE8275 CFA14 GENE2378 CFA14 GENE12523 CFA14 GENE12523	42692152.00 42882232.00 42976880.00 43203196.00
GENE2489 96251848.00 HSA07 GENE2489 96251848.00 HSA07 GENE8388 97092768.00 HSA07 GENE2526 106686664.00 HSA07	GENE8271 - GENE2374 - GENE12522 - GENE12522 - GENE12522 -	1255.00 1276.00 1281.00 1290.00	- GENE8271 - GENE2374 - GENE12522 - GENE12522	CFA14 GENE8277 CFA14 GENE8278 CFA14 GENE8278 CFA14 GENE8278	43497008.00 44250916.00 44615228.00 44692204.00
GENE8424 110324048.00 HSA07 GENE8424 110324048.00 HSA07 GENE2527 110935128.00 HSA07 GENE8425 111530280.00 HSA07		1302.00 1310.00 1316.00 1327.00	-GENE2377 -GENE2376 -GENE8273 -GENE8275	CFA14 GENE2382 CFA14 GENE8280 CFA14 GENE8280 CFA14 GENE2383 CFD14 CENE12824	45140200.00 45300288.00 45396728.00
GENE2529 112020312.00 HSA07 GENE2529 112020312.00 HSA07 GENE8427 112286088.00 HSA07 GENE2530 113069472.00 HSA07	GENE2376 - GENE2376 - GENE12523 - GENE2379 - GENE2379 -	1332.00 1338.00 1356.00 1365.00	- GENE2378 - GENE12523 - GENE2379 - GENE2377	CFA14 GENE8281 CFA14 GENE8281 CFA14 GENE8284 CFA14 GENE8282 CFA14 GENE8282	45396728.00 45507140.00 45757968.00
GENE2531 114209808.00 HSA07 GENE8429 115177584.00 HSA07 GENE2532 115443400.00 HSA07 GENE2536 115593648.00 HSA07		1385.00 1404.00 1413.00 1415.00	- GENE2380 - GENE8278 - GENE2381 BBC: 376-H5	CFA14 GENE8283 CFA14 GENE8286 CFA14 GENE8286 CFA14 GENE8284 CFB14 CFB12527	45757968.00 45757968.00 45757968.00 45757968.00
GENE2533 115753880.00 HSA07 GENE2534 116092864.00 HSA07 GENE2537 116301824.00 HSA07 GENE2537 116301824.00 HSA07	GENE2382 - GENE3280 - GENE3280 - GENE3283 - GENE12524 -	1418.00 1427.00 1432.00 1438.00	- GENE2382 - GENE8280 - GENE2383 - GENE12524	CFA14 GENE8286 CFA14 GENE2389 CFA14 GENE9140 CFA14 GENE9287	46166464.00 46313444.00 46416188.00 4649472.00
GENE2535 116490760.00 HSA07 GENE8434 116984880.00 HSA07 GENE8436 120161696.00 HSA07 GENE8436 120161696.00 HSA07 GENE12562 12054584 00 HSA07		1444.00 1452.00 1458.00 1464.00	-GENE8281 -GENE2384 -GENE8282 -GENE12525	CFA14 GENE8288 CFA14 GENE2391 CFA14 GENE8289 CFA14 GENE8289	46680916.00 46913208.00 47198532.00 47407800.00
GENE2540 121178112.00 HSA07 GENE8438 121293608.00 HSA07 GENE2541 121519216.00 HSA07 GENE25439 122309192.00 HSA07	GENE8283 - GENE2386 - GENE12527 - GENE12527 - GENE8286 -	1470.00 1472.00 1475.00 1475.00	-GENE8283 -GENE2386 -GENE12527 -GENE8286	CFA14 GENE8291 CFA14 GENE8290 CFA14 GENE8290 CFA14 GENE2394 CFB14 GENE8292	47475908.00 47475908.00 47687872.00 48184384.00
GENE2542 122673592.00 HSA07 GENE8440 122808616.00 HSA07 GENE2543 122822416.00 HSA07 GENE2545 124064880.00 HSA07	-GENES284 - -GENE2389 - -GENE9140 - -GENE9287 -	1481.00 1493.00 1501.00 1504.00	-GENE8284 -GENE2389 -GENE9140 -GENE8287	CFA14 GENE8293 CFA14 GENE2396 CFA14 GENE8294 CFA14 GENE8294	48612580.00 49005340.00 49005340.00 49255964.00
GENE8443 124373936.00 HSA07 GENE2546 126584648.00 HSA07 GENE2548 127449184.00 HSA07 GENE2548 127449184.00 HSA07	-GENES289 - -GENES288 - -GENES288 - -GENE2391 - -GENE2392 -	1513.00 1522.00 1528.00 1534.00	-GENE8289 -GENE8288 -GENE2391 -GENE2392	CFA14 GENE9753 CFA14 GENE2513 CFA14 GENE2398 CFA14 GENE8296	49346176.00 49346176.00 49463524.00 49746252.00
GENE2549 127553328.00 HSA07 GENE8448 127909296.00 HSA07 GENE2551 127963392.00 HSA07 GENE8449 128047344.00 HSA07	-GENE8291 - -GENE8290 - -GENE2394 - -GENE8292 -	1536.00 1539.00 1545.00 1550.00	-GENE8291 -GENE8290 -GENE2394 -GENE8292	CFA14 GENE2399 CFA14 GENE2400 CFA14 GENE8298 CFA14 GENE8298	49983888.00 50220376.00 50316780.00 50429608.00
GENE12564 128072696.00 HSA07 GENE8450 128248296.00 HSA07 GENE2553 128357776.00 HSA07 GENE2553 128457776.00 HSA07	GENE8293 - GENE2393 - GENE2396 - GENE2396 - GENE8294 -	1559.00 1564.00 1567.00 1570.00	-GENE8293 -GENE2393 -GENE2396 -GENE8294	CFA14 GENE8300 CFA14 GENE2526 CFA14 GENE12559 CFA14 GENE12559	51057992.00 51382488.00 51454472.00 53559096.00
GENE2555 128863856.00 HSA07 GENE8453 129031912.00 HSA07 GENE2556 129211104.00 HSA07 GENE2556 129211104.00 HSA07	BAC_381-K9 BAC_376-J23 -GENE9753 -	1578.00 1584.00 1587.00 1589.00	BAC_381-K9 BAC_376-J23 -GENE9753 -GENE2513	CFA14 GENE2527 CFA14 GENE8425 CFA14 GENE8426 CFA14 GENE8426	53869776.00 54493876.00 54861872.00 54867948 00
GENE2557 129358944.00 HSA07 GENE2558 129491424.00 HSA07 GENE2559 129696720.00 HSA07 GENE2559 129696720.00 HSA07 GENE8457 129714576.00 HSA07	-GENE2398 - -GENE8296 - -GENE8299 - -GENE8360 -	1592.00 1597.00 1600.00 1603.00	-GENE2398 -GENE8296 -GENE2399 -GENE6360	CFA14 GENE8427 CFA14 GENE2530 CFA14 GENE8428 CFA14 GENE8428	55128324.00 55620264.00 56291832.00 56700796.00
GENE2560 129785496.00 HSA07 GENE8458 129982520.00 HSA07 GENE2561 130147864.00 HSA07 GENE2563 130155240.00 HSA07	-GENE2400 - -GENE8298 - -GENE2401 - -GENE8300 -	1605.00 1614.00 1616.00 1624.00	-GENE2400 -GENE8298 -GENE2401 -GENE8300	CFA14 GENE8429 CFA14 GENE2532 CFA14 GENE2533 CFA14 GENE2533 CFA14 GENE2534	57502416.00 57903696.00 58094936.00 58377672.00
GENE8459 130427664.00 HSA07 GENE2562 130571384.00 HSA07 GENE8460 130606744.00 HSA07 GENE12565 131280672.00 HSA07	-GENE12559 - -GENE2526 - BAC_375-K10 BAC_382-M1	1639.00 1653.00 1669.00 1683.00	-GENE12559 -GENE2526 BAC_375-K10 BAC_382-M1	CFA14 GENE8432 CFA14 GENE2535 CFA14 GENE2536 CFA14 GENE8434	58531300.00 58723760.00 58973268.00 59121268.00
GENE8461 131607648.00 HSA07 GENE2564 131828344.00 HSA07 GENE12566 131899728.00 HSA07 GENE2566 132154544.00 HSA07	-GENE8424 - BAC_374-I1 -GENE8425 - -GENE8425 -	1692.00 1704.00 1712.00 1727.00	-GENE8424 BAC_374-I1 -GENE2527 -GENE8425	CFA14 GENE2537 CFA14 GENE412 CFA14 GENE8436 CFA14 GENE12562	59499488.00 59683096.00 61631688.00 62004608.00
GENE8462 132182832.00 HSA07 GENE8463 132579120.00 HSA07 GENE12567 133105704.00 HSA07 GENE8464 133401960.00 HSA07		1745.00 1757.00 1763.00 1772.00	-GENE3426 -GENE2529 -GENE2530 -GENE3428	CFA14 GENE2540 CFA14 GENE8438 CFA14 GENE2541 CFA14 GENE8439	62458748.00 62557780.00 62752272.00 63252384.00
GENE9291 5136280.00 HSA11 GENE9753 62238796.00 HSA12 GENE2513 62263328.00 HSA12	GENE2531 - GENE2531 - GENE8427 - EST24C4 GENE8429	1778.00 1785.00 1823.00 1851.00	-GENE2531 -GENE8427 EST24C4 -GENE8429	CFA14 <u>GENE2542</u> CFA21 <u>GENE9291</u> CFA07 <u>GENE6360</u>	63508684.00 30395910.00 19909512.00
	GENE0429 - GENE2532 - GENE2533 - GENE2534 - GENE2534 -	1860.00 1863.00 1866.00 1869.00	-GENE2532 -GENE2533 -GENE2534 -GENE8432		
	-GENE2535 - -GENE2536 - -GENE8434 - -GENE2537 -	1872.00 1875.00 1881.00 1898.00	- GENE2535 - GENE2536 - GENE8434 - GENE2537		
		1905.00 1966.00 1989.00 2003.00	- GENE412 - GENE8436 - GENE12562 - GENE2540		
	GENE2541 - GENE8438 - GENE8439 - GENE2542 -	2010.00 2016.00 2038.00 2041.00	- GENE2541 - - GENE8438 - GENE8439 - - GENE2542 -		

GENE6029 33540272.00 HSA01 GENE121 33591840.00 HSA01 GENE6030 33692240.00 HSA01 GENE11839 33778812.00 HSA01	-GENE137 - -GENE139 - -GENE11850 - -GENE141 -	0.00 23.00 38.00 48.00	-GENE137 -GENE139 -GENE11850 -GENE141	CFA27 GENE3789 19298980.00 CFA27 GENE3784 20550948.00 CFA27 GENE3783 21621952.00 CFA27 GENE3783 22782140.00
GENEG032 34180212.00 HSA01 GENEG032 34180212.00 HSA01 GENEG033 34748224.00 HSA01 GENE11841 34880232.00 HSA01 GENEG034 35007484.00 HSA01	GENE143 - GENE143 - GENE147 - GENE148 - GENE150 -	62.00 67.00 77.00 92.00	-GENE 143 -GENE 147 -GENE 148 -GENE 150	CFA15 GENE153 35452775.00 CFA15 GENE152 3500328.00 CFA15 GENE151 3500328.00 CFA15 GENE151 3641200.00 CFA15 GENE150 3804218.00
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GENE152 42729760.00 HSA01 GENE6061 42805072.00 HSA01 GENE153 42854036.00 HSA01 GENE6062 43042920.00 HSA01	-GENE6031 - -GENE6029 - -GENE4619 - BAC_376-I5	487.00 495.00 511.00 524.00	-GENE6031 -GENE6029 -GENE4619 BAC_376-15	CFA15 GENE6033 10134452.00 CFA15 GENE6032 10663426.00 CFA15 GENE6031 10910320.00 CFA15 GENE11839 10956413.00
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GENE164 45447280.00 HSA01 GENE6074 45857224.00 HSA01 GENE6075 46114108.00 HSA01 GENE167 46196764.00 HSA01	GENE184 - GENE182 - GENE6091 - GENE6088 -	661.00 664.00 672.00 686.00	-GENE184 -GENE182 -GENE6091 -GENE6088	CFA15 GENE182 12022896.00 CFA15 GENE11870 12096053.00 CFA15 GENE181 12211076.00 CFA15 GENE181 12267633.00
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GENE6083 48067512.00 HSA01 GENE175 48141156.00 HSA01 GENE6085 4859224.00 HSA01 GENE178 50802872.00 HSA01 GENE178 50802872.00 HSA01	GENEG 082 GENE 082 GENE 11868 GENE 11868 GENE 1170 GENE 1170	795.00 804.00 829.00 836.00	-GENE 6082	CFA15 GENE6083 15663463.00 CFA15 GENE6082 15965988.00 CFA15 GENE11868 16309049.00 CFA15 GENE172 16365074.00
GENESSO7 51106296.00 HSH01 GENE179 51256940.00 HSA01 GENE6088 51504736.00 HSA01 GENE180 51629208.00 HSA01 GENE11869 51858904 00 HSA01	GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2 GENEL1/2	859.00 863.00 866.00 869.00	-GENE172 -GENE169 -GENE11866 -GENE6077 -GENE6076	CFM15 GENE170 16645430.00 CFA15 GENE169 16765199.00 CFA15 GENE11866 16765199.00 CFA15 GENE6077 16860788.00 CFA15 GENE6076 17005204 00
GENE181 51918648.00 HSA01 GENE11870 52075076.00 HSA01 GENE182 52192544.00 HSA01 GENE6091 52220108.00 HSA01	GENE6075 - GENE6074 - GENE6072 - GENE11862 -	872.00 882.00 889.00 893.00	- GENE6075	CFA15 GENE167 17037392.00 CFA15 GENE6075 17089636.00 CFA15 GENE6074 17311712.00 CFA15 GENE164 17773656.00
GENE184 52528192.00 HSA01 GENE4619 46396092.00 HSA16 GENE4620 46542156.00 HSA16 GENE10506 46624304.00 HSA16	GENE6070 - GENE160 - GENE164 - GENE156 -	897.00 901.00 914.00 933.00	-GENE6070	CFA15 GENE6072 17841684.00 CFA15 GENE11862 17967820.00 CFA15 GENE6070 18356442.00 CFA15 GENE160 18645436.00
GENE4621 46724664.00 HSA16 GENE10033 14035948.00 HSA14 GENE4154 15464568.00 HSA14 GENE12703 18637608.00 HSA14 GENE12703 18637608.00 HSA14	GENE157 GENE6066 BAC_382-014 GENE11857 -	941.00 944.00 952.00 955.00	GENE 157 - GENE 6066 BAC_382-014 - GENE 11857 - GENE 154	CFH15 GENE6066 19288628.00 CFA15 GENE157 19330508.00 CFA15 GENE156 19603272.00 CFA15 GENE11857 19877420.00 CFA15 GENE11857
GENE10038 19151632.00 HSA14 GENE10039 19453852.00 HSA14 GENE12704 19688532.00 HSA14 GENE10041 19775864.00 HSA14 GENE10042 19884254 00 HSA14	GENE 154 GENE 154 GENE 6062 GENE 10033 GENE 12703 GENE 12704	959.00 970.00 980.00 986.00 1003.00	-GENE 154 -GENE 6062 GENE 10033 -GENE 12703 -GENE 12704	CFR15 GENE154 19956966.00 CFR15 GENE6062 19983674.00 CFR15 GENE12703 20526068.00 CFR15 GENE10038 21038560.00 CFR15 GENE10039 21105676.00
GENE10043 20129606.00 HSA14 GENE11636 45998268.00 HSAX GENE11661 56670352.00 HSAX GENE3781 28007054.00 HSA12	GENE10038 - GENE4154 - GENE10039 - GENE9776 -	1006.00 1010.00 1024.00 1040.00	-GENE10038	CFA15 GENE12704 21354322.00 CFA15 GENE4154 21354322.00 CFA15 GENE10041 21354322.00 CFA15 GENE10042 21354322.00
GENE3783 29617532.00 HSA12 GENE3784 30723892.00 HSA12 GENE3789 32652080.00 HSA12 GENE9776 74181328.00 HSA12	GENE10043 - GENE10041 - GENE10042 - GENE11061 -	1058.00 1088.00 1091.00 1095.00	-GENE10043	CFA15 GENE11661 21354322.00 CFA15 GENE9776 21888680.00 CFA15 GENE10043 21888680.00 CFA15 GENE3888 22155036.00
GENE3888 74739824.00 HSA12 GENE3889 75242896.00 HSA12 GENE9779 75941208.00 HSA12 GENE13676 76864256.00 HSA12	GENE3888 GENE3889 GENE3781 GENE3781 GENE9779	1112.00 1124.00 1140.00 1164.00	-GENE3888	CFA15 GENE3889 22300796.00 CFA15 GENE9779 22879520.00 CFA15 GENE3891 23616280.00 CFA15 GENE13676 23616280.00
GENE9780 77108304.00 HSA12 GENE3892 78192328.00 HSA12 GENE9781 78345024.00 HSA12 GENE3891 78511960.00 HSA12 GENE3891 78511960.00 HSA12	GENE3891 GENE3891 GENE3783 GENE13676 GENE9780 CENE9780	1181.00 1191.00 1209.00 1224.00	-GENE3783	CFR15 GENE9780 23954904.00 CFR15 GENE3892 25006448.00 CFR15 GENE9781 25006448.00 CFR15 GENE3893 25167872.00 CFR15 GENE3893 25167872.00
GENE13230 79126632.00 HSA12 GENE9783 79272704.00 HSA12 GENE3895 79339728.00 HSA12 GENE9784 79565152.00 HSA12	GENE3892 - GENE3892 - GENE9781 - GENE3893 - GENE3895 -	1267.00 1273.00 1276.00 1282.00	-GENE3892	CFA15 GENE13230 25695450.00 CFA15 GENE3895 25818376.00 CFA15 GENE9784 26013304.00 CFA15 GENE3896 26168764.00
GENE3896 79784016.00 HSA12 GENE13677 80128944.00 HSA12 GENE9786 80849576.00 HSA12 GENE9787 81326160.00 HSA12	GENE9783 - GENE13230 - GENE9784 - GENE3896 -	1285.00 1291.00 1307.00 1319.00	-GENE9783 -GENE13230 -GENE9784 -GENE3896	CFA15 GENE13677 26428328.00 CFA15 GENE9786 27130612.00 CFA15 GENE9787 27433814.00 CFA15 GENE3898 27433814.00
GENE13679 81791800.00 HSA12 GENE3898 83084912.00 HSA12 GENE3899 83419232.00 HSA12 GENE9788 83781360.00 HSA12	GENE 13677 - GENE 9787 - GENE 9787 - GENE 9786 - GENE 9786 -	1322.00 1338.00 1349.00 1361.00	-GENE13677	CFA15 GENE13679 27878384.00 CFA15 GENE3899 27878384.00 CFA15 GENE9788 29507180.00 CFA15 GENE13231 29682090.00
GENE13231 83952176.00 HSA12 GENE9789 84778352.00 HSA12 GENE9790 86979224.00 HSA12 GENE13681 87088288.00 HSA12	GENE3898 BAC_416-N24 GENE13679 - GENE3899 - CENE12021	1367.00 1372.00 1391.00 1410.00	-GENE3898 BAC_416-N24 -GENE13679 -GENE3899	CFA15 GENE9789 30369968.00 CFA15 GENE9790 32277962.00 CFA15 GENE13681 32277962.00 CFA15 GENE9791 32707356.00
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GENE9795 91362408.00 HSA12 GENE9796 92383576.00 HSA12 GENE9797 92573544.00 HSA12 GENE9798 93274808.00 HSA12	GENE9791 - GENE9792 - GENE13682 - GENE9794 -	1553.00 1564.00 1600.00 1610.00	-GENE9791	CFA15 GENE9796 36732184.00 CFA15 GENE9797 36897860.00 CFA15 GENE9798 37467520.00 CFA15 GENE13684 38082184.00
GENE13684 94030592.00 HSA12 GENE9800 94196408.00 HSA12 GENE3912 94381776.00 HSA12 GENE9802 94682400.00 HSA12	GENE 13683 - GENE 9795 - GENE 9797 - GENE 9797 - GENE 9796 -	1627.00 1650.00 1673.00 1677.00	-GENE13683	CFA15 GENE3911 38082184.00 CFA15 GENE3912 38279224.00 CFA15 GENE9800 38279224.00 CFA15 GENE9802 38575104.00
GENE 9003 94784096.00 HSH12 GENE 13685 94899168.00 HSA12 GENE 9804 95162368.00 HSA12 GENE 3916 95414960.00 HSA12 GENE 13686 95449848.00 HSA12	GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750 GENE3750	1711.00 1726.00 1730.00 1734.00	GENE3912	CFM15 GENE9003 30694900.00 CFA15 GENE13685 38847136.00 CFA15 GENE3915 38847136.00 CFA15 GENE9804 39029096.00 CFA15 GENE98016 39192924.00
GENE13687 95839720.00 HSA12 GENE3911 95862456.00 HSA12 GENE3916 96629648.00 HSA12 GENE3816 96629648.00 HSA12 GENE3915 96730808.00 HSA12	GENE9802 - GENE9802 - GENE3916 - GENE13685 - GENE3915 -	1742.00 1776.00 1794.00 1798.00	-GENE9802 -GENE3916 -GENE13685 -GENE3915	CFA15 GENE13686 39262664.00 CFA15 GENE13687 39568852.00 CFA15 GENE3807 39568852.00 CFA15 GENE3806 40360252.00
GENE9807 97544904.00 HSA12 GENE3917 97798912.00 HSA12 GENE3919 98954128.00 HSA12 GENE9808 99114384.00 HSA12	GENE9803 - GENE9804 - GENE13686 - GENE13687 -	1801.00 1813.00 1825.00 1829.00	-GENE9803 -GENE9804 -GENE13686 -GENE13687	CFA15 GENE9807 41154536.00 CFA15 GENE11636 41600468.00 CFA15 GENE3919 42280400.00 CFA15 GENE9808 42354744.00
GENE9809 99234648.00 HSA12 GENE3921 99317280.00 HSA12 GENE9810 99430584.00 HSA12 GENE3922 99514496.00 HSA12	BAC_381-B7 GENE3917 - GENE9806 - GENE9807 -	1836.00 1857.00 1881.00 1905.00	BAC_381-B7 -GENE3917 -GENE9806 -GENE9807	CFA15 GENE9809 42432812.00 CFA15 GENE3921 42513640.00 CFA15 GENE9810 42581612.00 CFA15 GENE3922 42647192.00
GENE9811 99992304.00 HSA12 GENE13688 100083216.00 HSA12 GENE13689 100238624.00 HSA12 GENE9813 100378784.00 HSA12 GENE9814 100524512 00 HSA12	GENE3921 GENE3922 GENE3919 GENE3919 GENE11636	1965.00 2005.00 2021.00 2036.00 2043.00	-GENE3921 -GENE3922 -GENE3919 -GENE9808 -GENE11636	CFA15 GENE9811 43111596.00 CFA15 GENE3923 43276408.00 CFA15 GENE13688 43276408.00 CFA15 GENE13689 43276408.00 CFA15 GENE13689 43276408.00
GENE13692 100676152.00 HSH12 GENE9815 100804416.00 HSA12 GENE13693 100922040.00 HSA12 GENE9816 100973520.00 HSA12	GENE 11636 - GENE 9809 - GENE 9810 - GENE 9815 - GENE 9811	2050.00 2057.00 2087.00 2097.00	-GENE9809 -GENE9810 -GENE9815 -GENE9811	CFA15 GENE9813 43473620.00 CFA15 GENE9813 43608204.00 CFA15 GENE9814 43608204.00 CFA15 GENE9814 43608204.00 CFA15 GENE9815 43921596.00
GENE7619 101092008.00 HSA12 GENE13694 101315552.00 HSA12 GENE3923 101533936.00 HSA12 GENE9817 101747472.00 HSA12	GENE3923 - GENE13692 - GENE13688 - GENE13694 -	2104.00 2110.00 2117.00 2128.00	-GENE3923 -GENE13692 -GENE13688 -GENE13694	CFA15 GENE13693 43921596.00 CFA15 GENE7619 43921596.00 CFA15 GENE9816 43921596.00 CFA15 GENE13694 44214248.00
GENE3924 101772280.00 HSA12 GENE13695 102265048.00 HSA12 GENE9818 102715040.00 HSA12 GENE13696 102830208.00 HSA12 GENE9810	GENE13693 - GENE7619 - GENE9816 - GENE9814 -	2131.00 2138.00 2144.00 2151.00	GENE 13693 -GENE 7619 -GENE 9816 -GENE 9814 -GENE 13689	CFH15 GENE9817 44607296.00 CFA15 GENE13695 45004748.00 CFA15 GENE9818 45370720.00 CFA15 GENE9819 45538696.00 CFA15 GENE9819 45538696.00
GENE 3697 102695240.00 HSA12 GENE 13697 102960864.00 HSA12 GENE 9820 103014568.00 HSA12 GENE 9824 104266880.00 HSA12 GENE 1524 76350288.00 HSA14	GENE 13689 - GENE9813 - GENE9813 - GENE9817 - GENE12005	2193.00 2240.00 2288.00 2303.00	-GENE9813 -GENE3924 -GENE9817 -GENE13695	CFA15 GENE9820 45538696.00 CFA15 GENE9820 45538696.00 CFA15 GENE13696 45538696.00 CFA15 GENE1626 45752612.00 CFA15 GENE1627 46233922 44
GENE1626 145037232.00 HSH04 GENE1627 145608592.00 HSA04 GENE7528 146202480.00 HSA04 GENE1628 146596000.00 HSA04	GENE 13695 - GENE 9819 - GENE 13697 - GENE 9820 - GENE 13696 -	2322.00 2329.00 2346.00 2363.00	-GENE9819 -GENE13697 -GENE9820 -GENE13696	CFA15 GENE7528 46563624.00 CFA15 GENE1628 46867344.00 CFA15 GENE7529 46867344.00 CFA15 GENE7530 47080060.00
GENE7529 146673056.00 HSA04 GENE7530 146979712.00 HSA04 GENE1631 147053856.00 HSA04 GENE13007 147144432.00 HSA04	GENE9818 - GENE1626 - GENE1627 - GENE7528 -	2369.00 2376.00 2382.00 2396.00	-GENE9818 -GENE1626 -GENE1627 -GENE7528	CFA15 GENE7531 47188504.00 CFA15 GENE13007 47188504.00 CFA15 GENE1631 47375864.00 CFA15 GENE12347 47375864.00
GENE7531 147152272.00 HSA04 GENE12347 147347696.00 HSA04 GENE7532 147609824.00 HSA04 GENE12348 147688096.00 HSA04	GENE1628	2410.00 2422.00 2441.00 2448.00	-GENE1628 -GENE7529 -GENE7530 -GENE1631	CFA15 GENE7532 47596952.00 CFA15 GENE12348 47596952.00 CFA15 GENE13008 47763016.00 CFA15 GENE7533 47763016.00
GENE/533 147/56624.00 HSH04 GENE13008 147791664.00 HSA04 GENE12349 149758064.00 HSA04 GENE7538 152426560.00 HSA04 GENE7538 152600832.00 HSA04	GENE7531 	2455.00 2459.00 2462.00 2478.00 2484.00	-GENE7531 -GENE12347 -GENE13007 -GENE7532 BBC 380-P2	CFR15 GENE12349 49730680.00 CFR15 GENE1638 52072084.00 CFR15 GENE7538 52072084.00 CFR15 GENE7539 52072084.00 CFR15 GENE7539 52072084.00
GENE7539 152664192.00 HSA04 GENE1639 152789472.00 HSA04 GENE1640 153167312.00 HSA04 GENE7541 153878464.00 HSA04	GENE 13008 - GENE 13008 - GENE 12348 - BAC_375-N23	2494.00 2500.00 2506.00 2545.00	-GENE13008 -GENE7533 -GENE12348 BAC_375-N23	CFA15 GENE1640 52635052.00 CFA15 GENE7541 53279056.00 CFA15 GENE1641 53468992.00 CFA15 GENE7542 53536140.00
GENE1641 154036128.00 HSA04 GENE1642 154079120.00 HSA04 GENE7542 154141488.00 HSA04 GENE7543 154361840.00 HSA04	GENE12349 - BAC_417-H22 -GENE7541 - GENE1638 -	2561.00 2586.00 2618.00 2636.00	-GENE12349 BAC_417-H22 -GENE7541 -GENE1638	CFA15 GENE1642 53713812.00 CFA15 GENE7543 53713812.00 CFA15 GENE1644 54407552.00 CFA15 GENE7545 54514660.00
GENE1644 155100512.00 HSA04 GENE7545 155202656.00 HSA04 GENE1645 155284096.00 HSA04 GENE1646 155614400.00 HSA04	GENE7538 - GENE7539 - GENE1639 - GENE1640 -	2649.00 2655.00 2661.00 2664.00	-GENE7538 -GENE7539 -GENE1639 -GENE1640 -BOC 28A_D14	CFA15 GENE1645 54564068.00 CFA15 GENE1646 54907136.00 CFA15 GENE12351 54907136.00 CFA15 GENE7547 55253240.00
GENE 12351 155828160.00 HSA04 GENE 7547 156036368.00 HSA04 GENE 13014 156045632.00 HSA04 GENE 1648 156296528.00 HSA04 GENE 1650 157046.000 HSA04	BAC_380-P14 GENE1641 - GENE7542 - GENE1642 -	2674.00 2677.00 2687.00 2701.00 2714.00	-GENE 1641 -GENE 1641 -GENE 1642 -GENE 1642 -GENE 7543	OFM15 GENE13014 55253240.00 CFA15 GENE1648 55491040.00 CFA15 GENE12352 56230244.00 CFA15 GENE1650 56275052.00 CFA15 GENE13015 56275052.00
GENE12352 157211664.00 HSA04 GENE13015 157303328.00 HSA04 GENE12353 157328560.00 HSA04 GENE12354 158307872.00 HSA04	GENE / 59-3 GENE /	2732.00 2743.00 2750.00 2756.00	-GENE1644 -GENE7545 -GENE1646 -GENE12351	CFA15 GENE120510 56367132.00 CFA15 GENE12353 56387132.00 CFA15 GENE12354 57288508.00 CFA15 GENE7553 57523824.00 CFA15 GENE7554 58383152.00
GENE7553 158669568.00 HSA04 GENE1654 159522256.00 HSA04 GENE7554 159628976.00 HSA04 GENE12355 159711232.00 HSA04	GENE7547 - GENE1648 - GENE13014 - GENE1645 -	2767.00 2782.00 2793.00 2803.00	-GENE7547 -GENE1648 -GENE13014 -GENE1645	CFA15 GENE1654 58426928.00 CFA15 GENE12355 58455200.00 CFA15 GENE7555 58599032.00 CFA15 GENE13016 58959496.00
GENE7555 159751824.00 HSA04 GENE12356 160412816.00 HSA04 GENE13016 160471648.00 HSA04 GENE7558 163008880.00 HSA04	GENE13015 - GENE12352 - GENE12353 - GENE1650 -	2826.00 2832.00 2839.00 2850.00	-GENE13015 -GENE12352 -GENE12353 -GENE1650 -GENE10254	CFA15 GENE12356 58959496.00 CFA15 GENE7558 61062888.00 CFA15 GENE7559 62568188.00 CFA15 GENE1659 62800948.00
GENE / 559 164825104.00 HSA04 GENE 1659 165023344.00 HSA04 GENE 1660 166103696.00 HSA04 GENE 12357 166252656.00 HSA04 GENE 1662 166200000 ANNO 4	GENE12354 - GENE7553 - GENE7554 - GENE7555 -	2005.00 2881.00 2907.00 2910.00 2913.00	-GENE7553 -GENE7554 -GENE7555 -GENE1654	CFR15 GENE12357 63842600.00 CFR15 GENE1660 63842600.00 CFR15 GENE1662 64283652.00 CFR15 GENE1663 64944808.00 CFR15 GENE10259 66704440
GENE1663 167573152.00 HSR04 GENE1664 169435776.00 HSR04 GENE12358 169803760.00 HSR04 GENE12358 169803760.00 HSR04 GENE7565 169854032.00 HSR04	GENE 1854 GENE 12355 GENE 12355 GENE 12356 GENE 12356 GENE 12356 BBC 372-111	2923.00 2948.00 3035.00 3100.00	-GENE12355 -GENE13016 -GENE12356 BAC_372-I11	CFA15 GENE7565 66701412.00 CFA15 GENE7565 66701412.00 CFA15 GENE1664 66701412.00 CFA15 GENE1524 67041436.00
	GENE7558 - GENE7558 - GENE1659 - GENE7559 - GENE12357 -	3119.00 3143.00 3158.00 3215.00	-GENE7558 -GENE1659 -GENE7559 -GENE12357	
	GENE1660 - GENE1662 - EST27A10 BAC_381-D20	3225.00 3239.00 3242.00 3257.00	-GENE1660 -GENE1662 EST27A10 BAC_381-D20	
	GENE 1663 - GENE 12358 - GENE 7565 - GENE 1664 -	3266.00 3316.00 3322.00 3327.00 3341.00	-GENE 12358 -GENE 12358 -GENE 1565 -GENE 1564 -GENE 1524	
	MGENE 1524 -	5571.00		

RH MAP CFA16

GENE12736	18615004.00 HSA16	GENE12736 -	0.00	GENE 12736	CFA16	GENE2417	3069531.00
GENE2417 GENE2419	43984644.00 HSA07	GENE8322 -	39.00	GENE 12568 -	CFA16 CFA16	GENE12535	3253114.00
GENE12535	44301132.00 HSA07	GENE2605 -	70.00	GENE2605	CFA16 CFA16	GENE2421	3507080.00
GENE2421	44477268.00 HSA07		77.00	-GENE12574 - GENE2604 -	CFA16	GENE8319 CENE12538	3555968.00
GENE12538	44745960.00 HSA07	-GENE8501 - 	99.00 106.00	-GENE8501	CFA16 CFA16	GENE12539 GENE2423	3694972.00
GENE12539 GENE8322	44856144.00 HSA07		121.00	-GENE2602	CFA16 CFA16	GENE1357 CENE6498	4143614.00
GENE8323 GENE8466	46679592.00 HSA07		163.00 176.00	-GENE8498	CFA16 CFA16	GENE591 GENE8466	4204957.00
GENE2569 GENE2570	134265184.00 HSA07	-GENE8497 - -GENE8496 -	186.00	-GENE8497 -GENE8496	CFA16 CFA16	GENE2569 GENE2570	4927288.00
GENE2570 GENE8469 GENE2572	134773216.00 HSA07	-GENE8494 - -GENE8494 -	203.00	-GENE8494	CFA16 CFA16	GENE2570 GENE8469 GENE2572	5296415.00 5442461 00
GENE2072 GENE8470	135030064.00 HSA07	GENE2596 -	210.00	-GENE2596	CFA16	GENE2572 GENE8470	5569570.00
GENE2070 GENE8471	136355568.00 HSA07	-GENE2597 -	219.00	-GENE2597	CFA16	GENE8471 CENE0574	6542305.00
GENE2574 GENE8472 GENE2577	136710320.00 HSA07	-GENES491 -	251.00	-GENESA91 -	CFA16 CFA16	GENE2374 GENE8472 CENE12568	6905031.00 7321719.00
GENE12577 GENE12568	137207632.00 HSA07	GENE2592	266.00	-GENE2592 -	CFA16 CFA16	GENE8503	7579856.00
GENE8474 GENE8475	137837584.00 HSA07	-GENE2591 - GENE2591 -	307.00	-GENE2591	CFA16 CFA16	GENE12574 CENE26.04	7550542.00
GENE2578 GENE2476	138033280.00 HSA07	GENE8487 -	322.00	-GENES487 -	CFA16 CFA16	GENE2504 GENE8501	7973761.00
GENE8477	138360176.00 HSA07		327.00	-GENE2589	CFA16 CFA16	GENE2500 GENE2500	8748394.00
GENE8478 GENE8479	138553232.00 HSA07	GENE2588 - GENE2587 -	342.00	-GENE2588	CFA16 CFA16	GENE2602 GENE2602	11395588.00
GENE2582	138978160.00 HSA07	BAC_382-C23	355.00	BRC_382-C23	CFA16 CFA16	GENE8497 CENE2599	11648736.00
GENE2584 GENE2585	139486992.00 HSA07 139680576.00 HSA07	GENE2585 - GENE12571 -	388.00 394.00	-GENE2585	CFA16 CFA16	GENE8496 GENE8495	11865326.00
GENE12571 GENE2586	139801552.00 HSA07 139860848.00 HSA07	GENE2584 - GENE2583 -	403.00 408.00	-GENE2584 -GENE2583	CFA16 CFA16	GENE2597 GENE8494	12013872.00
GENE2587 GENE2588	140700080.00 HSA07 140830144.00 HSA07	GENE2582 - GENE35478 -	425.00 431.00	-GENE2582 -GENE8478	CFA16 CFA16	GENE12573 GENE2596	12156211.00
GENE8486 GENE2589	140870640.00 HSA07 140944848.00 HSA07	GENE8477 - GENE2580 -	436.00 441.00	-GENE8477 -GENE2580	CFA16 CFA16	GENE2594 GENE8491	12433435.00 12489380.00
GENE8487 GENE2590	141052560.00 HSA07 141136720.00 HSA07	GENE8479 - GENE8476 -	450.00 467.00	-GENE8479 -GENE8476	CFA16 CFA16	GENE2592 GENE2591	12641329.00 12788467.00
GENE2596 GENE8488	141286176.00 HSA07 141291648.00 HSA07		472.00 481.00	-GENE8475 -GENE2578	CFA16 CFA16	GENE8488 GENE2590	12901067.00 12901067.00
GENE2591 GENE2592	141350304.00 HSA07 141616352.00 HSA07		489.00 492.00	-GENE2577 -GENE8474	CFA16 CFA16	GENE8487 GENE2589	13059109.00 13146002.00
GENE2599 GENE8491	141796496.00 HSA07 142038784.00 HSA07	-GENE2576 - -GENE8472 -	495.00 516.00	-GENE2576 -GENE8472	CFA16 CFA16	GENE8486 GENE2588	13219368.00 13219368.00
GENE2594 GENE12573	142121760.00 HSA07 142390592.00 HSA07		527.00 535.00	-GENE8471 -GENE2574	CFA16 CFA16	GENE2587 GENE2586	13325804.00 14031665.00
GENE8494 GENE2597	142482896.00 HSA07 142562768.00 HSA07		547.00 565.00	-GENE2573	CFA16 CFA16	GENE12571 GENE2585	14031665.00 14198338.00
GENE8495 GENE8496	142656736.00 HSA07 142817280.00 HSA07		586.00 595.00	-GENE2570 -/////	CFA16 CFA16	GENE2584 GENE2583	14353698.00 14562910.00
GENE8497 GENE2600	143092736.00 HSA07 143183840.00 HSA07	GENE2572 - GENE8469 -	597.00 603.00 608.00	-GENE2572	CFA16 CFA16	GENE2582 GENE8479	14724784.00 14943953.00
GENE8498 GENE2602	143465520.00 HSA07 146390816.00 HSA07		609.00 626.00	-GENE6498	CFA16 CFA16	GENE8478 GENE2580	15065264.00 15108437.00
GENE8500 GENE2605	146574592.00 HSH07 146750912.00 HSA07	-GENEI357 -	635.00 644.00	-GENESSI -	CFA16 CFA16	GENE8477 GENE8476	15188469.00 15389441.00
GENE2603 GENE8501 GENE0600	147233504.00 HSA07 147508880.00 HSA07		671.00 680.00	-GENES319	CFR16 CFR16	GENE8475 GENE2578	15491781.00
GENE2608 GENE2604	147530384.00 HSH07 147704208.00 HSA07	GENE2421 -	683.00 685.00	-GENE2421 -	CFH16 CFA16	GENE2577 GENE8474	15590141.00 15665195.00
GENE12574 GENE8503	147889168.00 HSH07 148092592.00 HSA07	-GENE 12530 - -GENE 12530 -	694.00 696.00	- GENE 12530 -	CFA16 CFA16	GENE2576 GENE2606	15772617.00
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GENE2615 GENE12576	140347072.00 HSH07 149030400.00 HSA07 149378048_00 HSA07	GENE8504 - GENE8506	770.00	-GENE8504	CFA16 CFA16	GENE2611 CENE8510	16526669.00
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GENE12580 GENE8515	150520976.00 HSA07 150579120.00 HSA07	GENE2615 - GENE2616 -	813.00 821.00	-GENE2615	CFA16 CFA16	GENE8515 GENE2618	17290396.00 17368758.00
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GENE8517 GENE2620	151264912.00 HSA07 151737792.00 HSA07	EST12G9 GENE12580 -	835.00 838.00	EST12G9 -GENE12580	CFA16 CFA16	GENE2620 GENE12576	18225002.00 18324048.00
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GENE2622 GENE2625	154254224.00 HSA07 154703648.00 HSA07		852.00 857.00	-GENE8516	CFA16 CFA16	GENE2622 GENE8520	20035894.00 20243488.00
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GENE8521 GENE2624	155020656.00 HSA07 155648288.00 HSA07	GENEOSIO - GENEOSIO - GENEOSIO - GENEOSIO -	899.00	-GENEOSIO	CFA16 CFA16	GENE2624 GENE8522	20913784.00 21118888.00
GENE8522 GENE8523	155866528.00 HSA07 156178576.00 HSA07	GENE2622 - GENESE20 -	907.00	-GENE2622	CFA16 CFA16	GENE2625 GENE8523	21118888.00 21341732.00
GENE2626 GENE8524	156576800.00 HSA07	GENE0621 - GENE2624 -	921.00	-GENE2621	CFA16 CFA16	GENE2626 GENE8524	21477616.00 21668280.00
GENE2620 GENE8526 CENE2629	157961760.00 HSA07	GENESS22 - GENESS23 -	941.00	GENE2627	CFA16 CFA16	GENE2626 GENE8526	22519052.00 22590064.00 22682160.00
GENE2025 GENE591 CENE6498	245933792.00 HSA01	GENE2625 - GENE2625 - GENE2626 -	946.00	-GENE2625	CFA16 CFA16	GENE2020 GENE8555	23541112.00
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GENE13119 GENE2640	8692111.00 HSA08 9220485.00 HSA08	GENE8555 - GENE8556 -	993.00 1015.00	-GENE8555	CFA16 CFA16	GENE2886 GENE8606	24896782.00 25119912.00
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GENE12583 GENE2650	12599116.00 HSA08 12888757.00 HSA08	-GENE8606 - -GENE2886 -	1034.00 1040.00	-GENE8606	CFA16 CFA16	GENE2707 GENE8604	25342924.00 25568592.00
GENE8549 GENE2652	15610783.00 HSA08 15926275.00 HSA08		1042.00 1045.00	-GENE12592	CFA16 CFA16	GENE2706 GENE8602	25919216.00 25919216.00
GENE12584 GENE2653	16010901.00 HSA08 16954596.00 HSA08		1048.00	-GENE2707 -GENE8609 -GENE8609	CFA16 CFA16	GENE8603 GENE2705	25919216.00 25919216.00
GENE8551 GENE8552	17087968.00 HSA08 17198572.00 HSA08		1085.00	-GENE8608	CFA16 CFA16	GENE2704 GENE13125	26149308.00 26517996.00
GENE2655 GENE8553 GENE2656	17406062.00 HSA08 17496200.00 HSA08	-GENE2706 - GENE3598 -	1125.00	-GENE8598	CFH16 CFA16	GENE8600 GENE12591 GENE9201	27056268.00 27563092.00
GENE8554 GENE2657	17814656.00 HSA08 17943116.00 HCO08	GENE2700 GENE8599	1178.00	-GENE8599	CFA16 CFA16	GENE8599 GENE2702	27724820.00
GENE8555 GENE2658	18754188.00 HSA08	GENE22/02 -GENE8602 -DENE8603	1264.00	-GENE8602 -GENE8603	CFA16 CFA16	GENE8598 GENE2700	28132324.00
GENE8556 GENE2659	19372172.00 HSA08 19690750.00 HSA08	-GENE2705 - -GENE2704 -	1288.00 1294.00	-GENE2705 -GENE2704	CFA16 CFA16	GENE13124 GENE2699	28451410.00 28657960.00
GENE8584 GENE2687	29840654.00 HSA08 29984712.00 HSA08	-GENE 13125 - -GENE 12591 -	1305.00 1314.00	-GENE 13125 -GENE 12591	CFA16 CFA16	GENE2929 GENE2698	28657960.00 28923420.00
GENE2688 GENE12588	30464972.00 HSA08 30528240.00 HSA08	-GENE2701 - -GENE8600 -	1325.00 1333.00	-GENE2701 -GENE8600	CFA16 CFA16	GENE8594 GENE2712	29161644.00 29395178.00
GENE8588 GENE2689	30762388.00 HSA08 30887348.00 HSA08	GENE13124 - GENE2699 -	1353.00 1362.00	-GENE13124	CFA16 CFA16	GENE2695 GENE12590	29910660.00 29910660.00
GENE8589 GENE2692	31047214.00 HSA08 32677268.00 HSA08	- GENE2929 GENE2698	1370.00 1379.00	-GENE2929	CFA16 CFA16	GENE8592 GENE2694	30198264.00 31017548.00
GENE8590 GENE2693	33403492.00 HSA08 33473336.00 HSA08	GENE3594 - GENE2712 -	1393.00	-GENEOSUM	CFA16 CFA16	GENE12589 GENE2693	31017548.00 32995544.00
GENE12589 GENE2694	35858540.00 HSA08		1430.00	-GENE12590	CFA16 CFA16	GENE8590 GENE2692	33055804.00 33632832.00
GENE12590 GENE2605	37243812.00 HSA08	GENE8592 - GENE2694 - CENE2E04	1456.00	-GENE2694	CFA16 CFA16	GENE8588 GENE8588	35300984.00
GENE2712 GENE2712	37789400.00 HSA08	GENE8590 - GENE2692 -	1502.00	-GENE2692	CFA16 CFA16	GENE 2089 GENE 12588 GENE 95 64	35664960.00
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GENE13124 GENE2700	38820240.00 HSA08 38957524.00 HSA08	GENE22609 GENE8588 GENE 12588	1607.00	-GENE8588	CFA16 CFA16	GENE8538 GENE264.0	36979520.00
GENE8598 GENE2701	39060916.00 HSA08 39501464.00 HSA08	GENE8589 - GENE8584 -	1635.00 1657.00	-GENE8589 -GENE8584	CFA16 CFA16	GENE13119 GENE2639	37521956.00 37521956.00
GENE12591 GENE8599	39512136.00 HSA08 39641604.00 HSA08	GENE2687 - GENE2688 -	1662.00 1668.00	-GENE2687 -GENE2688	CFA16 CFA16	GENE12583 GENE2649	38019060.00 38019060.00
GENE2702 GENE8600	39644176.00 HSA08 39799436.00 HSA08		1683.00 1700.00	-GENE8538 BAC_381-E13	CFA16 CFA16	GENE2650 GENE8549	38316136.00 40843952.00
GENE13125 GENE2704	40641680.00 HSA08 41135680.00 HSA08	GENE2640 - GENE13119 -	1721.00 1741.00	-GENE2640 -GENE13119	CFA16 CFA16	GENE2652 GENE12584	41126056.00 41126056.00
GENE8602 GENE2705	41384468.00 HSA08 41410240.00 HSA08		1761.00 1782.00	-GENE2639 -GENE12583	CFA16 CFA16	GENE2653 GENE8551	42037896.00 42267300.00
GENE8603 GENE2706	41472752.00 HSA08 41547156.00 HSA08		1802.00 1811.00	-GENE2650	CFA16 CFA16	GENE8552 GENE2655	42267300.00 42482216.00
GENE8604 GENE2707	41817336.00 HSA08 42029272.00 HSA08		1863.00 1886.00	-GENE8549	CFA16 CFA16	GENE8553 GENE2656	42602916.00 42791064.00
GENE8605 GENE12592	42080816.00 HSA08 42193344.00 HSA08	-GENE 12584 - -GENE 1689 -	1901.00	-GENE12009	CFA16 CFA16	GENE8554 GENE2657	42910124.00 42910124.00
GENE8606 GENE2886 GENE8600	42276952.00 HSA08 42673492.00 HSA08	GENE2655 - GENE2653 -	1980.00	-GENE2653	CFA16 CFA16	GENE7593 GENE1692	44181568.00 44602424.00
GENES609	43071720.00 HSA08		2010.00	-GENE8552	CFA16 CFA16	GENE/592 GENE1691 GENE1600	44732140.00 45723292.00
GENE13022 GENE1674	177257520.00 HSA04		2035.00	-GENE8554 -GENE2657	CFA16 CFA16	GENE7591 GENE1620	46042228.00
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RH MAP CFA17

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GENE6503 3137611.00 HSH02 GENE11996 3313258.00 HSA02 GENE11997 3352885.00 HSA02 GENE656 4906966 00 HSA02	GENE0592 	135.00 137.00 139.00	GENE0592	CFA17 GENE6501 4530012.00 CFA17 GENE6505 4816211.00 CFA17 GENE6503 5077469.00 CF017 CENE6503 5077469.00
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GENE6564 36791612.00 HSA02 GENE6564 36791612.00 HSA02 GENE658 37009996.00 HSA02 GENE12896 37097024 00 HSA02	GENE6560 - GENE653 - GENE12016 -	1494.00 1497.00 1502.00	-GENE653 -GENE12016 -GENE12017	CFA17 GENE6564 31941832.00 CFA17 GENE657 31941832.00 CFA17 GENE657 31941832.00 CFA17 GENE658 24044000 00
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	GENE6209	3463.00 3469.00 3479.00	-GENE301 -GENE6207 -GENE300	



GENE640 27882482.00 HSA02	0.00 175.00 177.00	-GENE640 CF GENE2427 CF -GENE2428 (CF	A17 <u>GENE640 24490816.</u> A02 <u>GENE2461 85653384.</u> A02 <u>GENE8359 86275224.</u>	00 ,00 ,00
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GENE0411 102542586.00 HSH07 GENE2514 102578480.00 HSA07 GENE8412 102741224.00 HSA07 GENE8412 102741224.00 HSA07	672.00 674.00 677.00	-GENE8409 CF	HIG GENECOVO 20120646. A18 GENE2457 20202878. A18 GENE8354 20251988.	,00 ,00
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GENE9366 45795844.00 HSA11 GENE3473 45865972.00 HSA11 GENE9367 45954860.00 HSA11 GENE9367 45954860.00 HSA11	1669.00 1684.00 1711.00	-GENE9386 CF BAC_380-L20 -GENE3491 CF	A18 GENE9377 51838092. A18 GENE3483 51838092. A18 GENE9376 51983308.	00 ,00 ,00
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GENE3476 46689912.00 HSA11 GENE9370 46744592.00 HSA11 GENE3477 46874456.00 HSA11 GENE3477 46874456.00 HSA11	1755.00 1765.00 1784.00	-GENE 1356 0 CF -GENE 9379 -GENE 13563 CF	A18 GENE13557 52548008. A18 GENE9371 52682384. A18 GENE3478 52682384.	00 ,00 ,00
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GENE9390 57859824.00 HSA11 GENE13180 58152288.00 HSA11 GENE13180 58152288.00 HSA11	2150.00 2170.00 2180.00	BAC_382-M9 -GENE9363 -GENE13163	A18 GENE9281 56822104. A18 GENE3388 56848360.	00,00
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GENE3506 60157928.00 HSH11 GENE3507 60395696.00 HSA11 GENE9401 60462016.00 HSA11 GENE9401 60462016.00 HSA11	2223.00 2234.00 2253.00	-GENE9279 -GENE9282 OFNE9282	HIO GENE13584 58369252. A18 GENE9447 58369252. A18 GENE13186 58484764.	00
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GENE9406 61506848.00 HSA11 GENE3513 61682884.00 HSA11 GENE3514 61734120.00 HSA11 GENE3514 61734120.00 HSA11	2296.00 2306.00 2323.00	-GENE 9280 - CF -GENE 3388 - CF -GENE 9449 - CF	A18 GENE9443 59445584. A18 GENE9442 59445584. A18 GENE3549 59573528.	00 00 00
GENE3515 61961676.00 HSA11 GENE9400 62071768.00 HSA11 GENE3516 62117192.00 HSA11	2333.00 2336.00 2338.00	-GENE9448 - CF -GENE13584 - CF -GENE3553 - CF	A18 GENE9441 59573528. A18 GENE3548 59694568. A18 GENE13580 59839972	00,00
GENE9410 62176736.00 HSA11 GENE3508 62251512.00 HSA11 GENE13572 62320908.00 HSA11	2340.00 2354.00 2367.00	-GENE9446 -GENE9447 -GENE3552	A18 GENE13185 60024248. A18 GENE3546 60133964. A18 GENE9438 60185216	00,00
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GENE3522 63361036.00 HSA11 GENE9415 63456616.00 HSA11 GENE3571 63551776.00 HSA11	2387.00 2392.00 2405.00	-GENE3551 - CF -GENE9443 - CF -GENE3549 - CF	A18 GENE9436 60418568. A18 GENE3543 60481520. A18 GENE9434 6075555	00
GENE3524 63739520.00 HSA11 GENE9416 63765792.00 HSA11 GENE13182 63829420 00 HSA11	2413.00 2418.00 2423.00	-GENE13185 CF -GENE3546 CF -GENE9441 CF	A18 GENE3541 60750388. A18 GENE3541 60710364. A18 GENE9433 60754240.	00
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GENE3527 64294666.00 HSH11 GENE9420 64318072.00 HSA11 GENE3528 64455816.00 HSA11 -GENE3543 -	2551.00 2561.00 2575.00	-GENE3544 - CF	A10 GENE9429 61445040. A18 GENE3536 61560992. A18 GENE3534 61830888.	00
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GENE13183 65113512.00 HSA11 GENE9426 65260676.00 HSA11 GENE3534 65320540.00 HSA11 GENE3539 -	2608.00 2618.00 2637.00	-GENE9429 -GENE3540 -GENE3539	A18 GENE9423 62280196. A18 GENE3530 62401200. A18 GENE13575 62401200.	00
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GENE3537 65877308.00 HSA11 GENE3538 65966952.00 HSA11 GENE13577 66047348.00 HSA11 GENE13577 66047348.00 HSA11	2805.00 2822.00 2830.00	-GENE3532 -GENE3534 -GENE9426	A18 GENE9420 62739192. A18 GENE3527 62739192. A18 GENE9419 62832440.	00 00 00
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GENE13579 67176792.00 HSA11 GENE9438 67541984.00 HSA11 GENE3546 67591680.00 HSA11 GENE3546 67591680.00 HSA11	2925.00 2943.00 2953.00	-GENE3526 -GENE9420 -GENE3528	A18 GENE13572 64165656. A18 GENE3517 64165656. A18 GENE3517 64165656.	00,00
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GENE9441 68233320.00 HSA11 GENE3549 68291848.00 HSA11 GENE3540 68297400.00 HSA11 GENE3540 68297400.00 HSA11	2979.00 2984.00 2989.00	-GENE9416 -GENE9415 BAC_375-07	A18 GENE3515 64556444. A18 GENE3514 64616592. A18 GENE13571 64641464	00,00
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GENE13581 69004152.00 HSA11 GENE3545 69070696.00 HSA11 GENE13582 69259416.00 HSA11 GENE13582 69259416.00 HSA11	3013.00 3018.00 3020.00	-GENE13181 CF BAC_381-E12 -GENE9412	A18 GENE3511 65090276. A18 GENE9404 65343996. A18 GENE9403 65343996	00,00
GENE9446 69391968.00 HSA11 GENE13186 69724848.00 HSA11 GENE9447 69843944.00 HSA11 GENE9447 69843944.00 HSA11	3031.00 3036.00 3059.00	-GENE13572 - GF -GENE3517 - GENE3516 - GF -GENE3516 - GF	A18 GENE3509 65343996. A18 GENE9402 65621760. A18 GENE3508 65621760.	00
GENE13584 69955392.00 HSA11 GENE9448 70041656.00 HSA11 GENE9449 70567864.00 HSA11 GENE9449 70567864.00 HSA11	3075.00 3077.00 3080.00	-GENE9411 -GENE3518 -GENE3541	A18 GENE9401 65709272. A18 GENE3507 65759396. A18 GENE9400 65826952.	00
GENE13585 70881008.00 HSA11 GENE3552 70915136.00 HSA11 GENE3553 71199024.00 HSA11	3083.00 3088.00 3095.00	-GENE9410 - CF -GENE13571	A18 GENE3506 65961996.	00
GENE3511 - BAC_374-A9 GENE9405 -	3109.00 3114.00 3117.00	-GENE3511 BAC_374-A9 -GENE9405		



RH MAP CFA19

GENE7502	122232936.00 HSA04		- 0.00		CFA18	GENE2413	10140199.00
GENE 16 03	122530008.00 HSA04		10.00	- GENE12342	CFA05	GENE5935	65520604.00
GENE 16.05	123028416,00 HS804	-GENE13002	24.00	- GENE13002	CEB19	GENE1615	15048441.00
GENE12997	123063488_00 HC004	-GENE7515	28.00	-GENE7515	CE019	GENE12342	15048441.00
GENE12340	123232120_00 HC004	-GENE1614	54.00	-GENE1614	CE019	GENE13002	15229573.00
GENE7506	123311872_00 HC004	-GENE7512	74.00	-GENE7512	CE019	GENE7515	15229573-00
GENE7507	123728016,00 HC004	-GENE1613	78.00	-GENE1613	CE019	GENE1614	15702906-00
GENE1607	123762784 . 00 HC004	-GENE7513	- 85.00	-GENE7513	CE019	CENE1613	16080419.00
CENE1608	103943070 00 HC004	-GENE12070	110.00	-GENE12070 -	CE019	CENE7513	16080419 00
CENE7508	123992600 00 HC004	GENE12341	146.00	-GENE12341	CE019	CENE7510	1600415.00
CENE 1611	126652276 00 HC004	CENE1611	156.00	-GENE1611	CE019	CENE10241	12051620 00
GENEI0II	126653376.00 HSH04	CENE75.08	221 00		CFH19 CE019	GENEIZ341	10001000.00
GENEIZ341	126069600.00 HSH04	CENE 16.08	221.00		CFH19	GENEIBII	10001000.00
GENE7012	120033632.00 HSH04	CENE 16 07	239.00	CENE 16 07	CFH19 CE010	GENE / SVO	20624270.00
GENE7010	129001010.00 HSH04	CENE7507	249 00	CENE 75 07	CFH19 CE019	GENE 16 00	20024270.00
GENE1013	129299312.00 HSH04	SERE/SU/	249.00		CFH19	GENE1607	20/95996.00
GENE1614	129589720.00HSH04		262.00		CFH19	GENE7507	20925592.00
GENE/515	130024456.00HSH04	GENE/SUG	270.00	GENE 1024.0	CFH19	GENE/506	21298076.00
GENE1615	130098992.00HSH04	-GENE12340	205.00	-GENE12040	CFH19	GENE12340	21298076.00
GENE13002	130247328.00HSH04	GENEL2397	293.00		CFH19	GENE1605	21298076.00
GENE12342	130349992.00 HSR04	-GENE 1605	307.00	-GENE1605	CFA19	GENE12997	21466356.00
GENE2413	42689168.00 HSH07		342.00	-GENE 1603	CFH19	GENE1603	21781888.00
GENE10240	32503604.00 HSA15		355.00	-GENE /502	CFA19	GENE7502	22214928.00
GENE5935	8871089.00 HSA01	GENE2413	364.00	-GENE2413	CFA19	GENE10240	22941676.00
GENE5941	10180108.00 HSA01		403.00	-GENE10240	CFA19	GENE6733	23522966.00
GENE6711	114578112.00 HSA02		438.00	-GENE5935	CFA19	GENE827	23871536.00
GENE12069	114769264.00 HSA02	BAC_416-L2	501.00	BAC_416-L2	CFA19	GENE6731	24371692.00
GENE808	116597928.00 HSA02	-GENE827	514.00	-GENE827	CFA19	GENE12078	25678512.00
GENE12070	116598408.00 HSA02	-GENE6733	523.00	-GENE6733	CFA19	GENE823	25810484.00
GENE812	118115216.00 HSA02	-GENE6731	542.00	-GENE6731	CFA19	GENE822	26129234.00
GENE6714	118959040.00 HSA02		564.00	- GENE 12078	CFA19	GENE6727	26129234.00
GENE6715	119842080.00 HSA02	-GENE823	583.00	-GENE823	CFA19	GENE821	26208240.00
GENE810	120007336.00 HSA02	-GENE822	601.00	-GENE822	CFA19	GENE820	26347932.00
GENE817	120015448.00 HSA02	GENE821	626.00	-GENE821	CFA19	GENE6725	26575578.00
GENE811	120172064.00 HSA02	GENE6727	643.00	-GENE6727	CFA19	GENE819	26964354.00
GENE12073	120346768.00 HSA02		667.00	-GENE6725	CFA19	GENE6724	28968828.00
GENE6718	120482320.00 HSA02	BAC_381-D1	685.00	BAC_381-D19	CFA19	GENE817	31827424.00
GENE12074	120663968.00 HSA02	GENE820	688.00	-GENE820	CFA19	GENE816	32221556.00
GENE6719	120829664.00 HSA02	BAC_375-F1	5 698.00	BAC_375-F15	CFA19	GENE6721	32701944.00
GENE6720	121073872.00 HSA02	GENE819	714.00	-GENE819	CFA19	GENE815	32855472.00
GENE815	121130896.00 HSA02	-GENE6724	- 761.00	-GENE6724	CFA19	GENE6720	32974868.00
GENE6721	121318592.00 HSA02	BAC_381-12	\$ 805.00	BAC_381-I24	CFA19	GENE6719	33152122.00
GENE816	121837096.00 HSA02	GENE817	818.00	-GENE817	CFA19	GENE12074	33278256.00
GENE6724	125378664.00 HSA02		828.00	-GENE816	CFA19	GENE6718	33489792.00
GENE823	126386080.00 HSA02	-GENE6721	842.00	-GENE6721	CFA19	GENE811	33688144.00
GENE819	127546688.00 HSA02	GENE12074	860.00	-GENE12074	CFA19	GENE812	33688144.00
GENE6725	127901640.00 HSA02	GENE6720	880.00	-GENE6720	CFA19	GENE12073	33688144.00
GENE820	128121360.00 HSA02	GENE6719	903.00	-GENE6719	CFA19	GENE810	33959876.00
GENE821	128272080.00 HSA02	-GENE815	906.00	-GENE815	CFA19	GENE6715	34094044.00
GENE6727	128331616.00 HSA02	GENE6718	919.00	-GENE6718	CFA19	GENE6714	34831776.00
GENE822	128411608.00 HSA02	GENE811	935.00	-GENE811	CFA19	GENE808	34959620.00
GENE12078	128837288.00 HSA02	-GENE6715	938.00	-GENE6715	CFA19	GENE12070	36568112.00
GENE6731	130094784.00 HSA02	GENE812	945.00	-GENE812	CFA19	GENE12069	38065020.00
GENE6733	131730320.00 HSA02	GENE12073	948.00	-GENE12073	CFA19	GENE6711	38322664.00
GENE827	132108472.00 HSA02	GENE6714	977.00	-GENE6714	CFA19	GENE6734	38382616.00
GENE831	132311448.00 HSA02	GENE808	983.00	-GENE808	CFA19	GENE829	38696544.00
GENE6734	133352664.00 HSA02	GENE810	1025.00	-GENE810	CFA19	GENE831	39257944.00
GENE829	133614080.00 HSA02		1072.00	-GENE829	CFA19	GENE830	39372688.00
GENE833	133964032.00 HSA02	GENE12069	1100.00	-GENE12069	CFA19	GENE5941	39780424.00
GENE830	134389232.00 HSA02	-GENE6734	1113.00	-GENE6734	CFA19	GENE6738	40798968.00
GENE6738	135831264.00 HSA02	GENE6711	1117.00	-GENE6711	CFA19	GENE833	40798968.00
GENE12082	135910528.00 HSA02		1127.00	-GENE831	CFA19	GENE12082	40798968.00
GENE6740	136693392.00 HSA02	GENE830	1130.00	-GENE830	CFA19	GENE6740	41410068.00
GENE6741	138540032.00 HSA02	-GENE5941	1147.00	-GENE5941	CFA19	GENE6741	43253640.00
GENE6742	139518176.00 HSA02	GENE6738	1176.00	-GENE6738	CFA19	GENE6742	44252476.00
GENE839	140253600.00HSA02	-GENE833	1182.00	-GENE833	CFA19	GENE838	45699376.00
GENE838	141237552.00 HSA02		1185.00	-GENE12082	CFA19	GENE839	46581880.00
GENE6744	143853504.00 HSA02	-GENE6740	1192.00	-GENE6740	CFA19	GENE6744	48100488.00
GENE12086	144487120.00 HSA02	BAC_381-L5	1240.00	BAC_381-L5	CFA19	GENE12086	48712888.00
GENE6745	144915088.00 HSA02	-GENE6741	1246.00	-GENE6741	CFA19	GENE6745	49061416.00
GENE5882	135685440.00 HSAX	BAC_385-G1	1259.00	BHC_385-G13	CEAX	GENE5882	112855656.00
		GENE6742	1270.00	-GENE6742			
		GENE5882	1312.00	-GENE5882			
		GENE838	1319.00	-GENE838			
		GENE839	1338.00	-GENE839			
		GENE6744	1369.00	-GENE6744			
		BAC_372-06	1392.00	BHC_372-06			
		-GENE 12086	1406.00	-GENE 12086			
		~~_GENE6745	1429.00	-GENE0745			

RH MAP CFA20

GENE1270 11035212.00 HSA02 GENE12430 145341424.00 HSA05 GENE1040 422657.00 HSA03 GENE1040 120222 00 HSA03	-GENE1115 - -GENE7017 - - -GENE1257 - 	0.00 2.00 9.00 26.00	GENE1115 GENE7017 - GENE1257	CFA02 <u>GENE12430 41028096.00</u> CFA20 GENE1257 3017754.00 CFA20 GENE1258 3344101.00 CF020 CENE1258 2456657.00
GENE1041 3059271.00 HSA03 GENE1042 3169720.00 HSA03 GENE6945 3817413.00 HSA03 GENE6946 4329996.00 HSA03	-GENE1258 - 	33.00 37.00 52.00 61.00	-GENE1258	CFA20 GENE1259 3459637.00 CFA20 GENE7162 3611830.00 CFA20 GENE1260 3814850.00 CFA20 GENE7163 3990711.00
GENE1044 4464284.00 HSA03 GENE1045 4914752.00 HSA03 GENE6948 5194760.00 HSA03 GENE1046 7431594.00 HSA03 GENE6949 8584019.00 HSA03		68.00 81.00 93.00 96.00 98.00	- GENE / 163	CFA20 GENE1261 4235493.00 CFA20 GENE7164 4535842.00 CFA20 GENE1262 4571957.00 CFA20 GENE7165 4632443.00 CFA20 GENE71263 4811413.00
GENE1047 8601009.00 HSA03 GENE12174 8762162.00 HSA03 GENE6951 9051814.00 HSA03 GENE1049 9411216.00 HSA03	-GENE1263 - -GENE12238 - -GENE12234 - -GENE7167 -	105.00 110.00 115.00 122.00	-GENE1263	CFA20 GENE12238 4999406.00 CFA20 GENE1264 5203234.00 CFA20 GENE7167 5287185.00 CFA20 GENE7168 5384020.00
GENE6953 9568642.00 HSA03 GENE1051 9762050.00 HSA03 GENE6954 9822389.00 HSA03 GENE1052 9856828.00 HSA03 GENE1053 10120526.00 HSA03		130.00 132.00 134.00 139.00 142.00	- GENE 7168	CFA20 GENE1266 5384020.00 CFA20 GENE1267 5590342.00 CFA20 GENE12240 5885142.00 CFA20 GENE7169 6004808.00 CFA20 GENE7169 6486933.00
GENE1055 1012/0526.00 HSH03 GENE6956 10166336.00 HSA03 GENE1054 10286577.00 HSA03 GENE1056 10950552.00 HSA03 GENE1057 11276695.00 HSA03	-GENE6966 - -GENE6966 - -GENE12177 - -GENE6967 - -GENE1066 -	157.00 187.00 192.00 208.00	-GENE6966	CFA20 GENE0966 6408533.00 CFA20 GENE12177 6640774.00 CFA20 GENE6967 6753553.00 CFA20 GENE1066 7182376.00 CFA20 GENE6968 7182376.00
GENE6960 11573675.00 HSA03 GENE6961 11599193.00 HSA03 GENE1058 11659919.00 HSA03 GENE1059 11806731.00 HSA03	GENE6968 - GENE6969 - GENE1067 - GENE6971 -	210.00 215.00 221.00 232.00	-GENE6968	CFA20 GENE6969 7425182.00 CFA20 GENE1067 7494312.00 CFA20 GENE6970 7638800.00 CFA20 GENE1068 7638800.00
GENE6962 12206548.00 HSA03 GENE1060 12432905.00 HSA03 GENE1061 12600328.00 HSA03 GENE6964 12750885.00 HSA03 GENE6964 12750885.00 HSA03	GENE6970 - GENE1068 - GENE1069 - GENE1271 - GENE1270 -	240.00 247.00 250.00 253.00 258.00	- GENE6970	CFA20 GENE6971 7787630.00 CFA20 GENE1069 7968744.00 CFA20 GENE1271 8320314.00 CFA20 GENE1270 8543629.00 CFA20 GENE1270 8543629.00
GENE6965 12857694.00 HSA03 GENE6966 13332716.00 HSA03 GENE12177 13497602.00 HSA03 GENE6967 13637017.00 HSA03		260.00 263.00 280.00 286.00	-GENE7173	CFA20 GENE6965 8543629.00 CFA20 GENE1062 8543629.00 CFA20 GENE6964 8726115.00 CFA20 GENE1061 8881890.00
GENE6968 14172633.00 HSA03 GENE1066 14214371.00 HSA03 GENE6969 14484185.00 HSA03 GENE1067 14540029.00 HSA03		295.00 300.00 306.00 316.00	-GENE6964	CFA20 GENE1060 9041740.00 CFA20 GENE6962 9187629.00 CFA20 GENE1059 9555013.00 CFA20 GENE1058 9850487.00
GENE6970 14687184.00 HSA03 GENE1068 14737173.00 HSA03 GENE6971 14836921.00 HSA03 GENE1069 15029905.00 HSA03 GENE1076 20001096.00 HSA03	GENE1056 - GENE1057 - GENE1057 - GENE1056 - GENE6960 -	322.00 330.00 333.00 336.00 347.00	- GENE 1056	CFA20 GENE6961 9850487.00 CFA20 GENE1057 9850487.00 CFA20 GENE6960 9850487.00 CFA20 GENE1056 10294978.00 CFA20 GENE1054 10926578.00
GENE7017 43806420.00 HSA03 GENE1115 43850444.00 HSA03 GENE1116 44799440.00 HSA03 GENE1116 44799440.00 HSA03 GENE1119 44816316.00 HSA03	GENE1052 - GENE1053 - GENE1054 - GENE1054 - GENE6956 -	374.00 392.00 403.00 406.00	-GENE1052	CFA20 GENE6956 11028135.00 CFA20 GENE1053 11120510.00 CFA20 GENE1052 11261322.00 CFA20 GENE6954 11261322.00
GENE7019 44928032.00 HSA03 GENE1117 45012688.00 HSA03 GENE1118 45094612.00 HSA03 GENE7021 45419188.00 HSA03	-GENE6954 - -GENE1051 - -GENE6953 - -GENE1049 -	411.00 414.00 416.00 422.00	-GENE6954	CFA20 GENE1051 11337418.00 CFA20 GENE6953 11485128.00 CFA20 GENE1049 11632995.00 CFA20 GENE6951 11977138.00
GENE12197 45550500.00 HSA03 GENE7022 45739512.00 HSA03 GENE1121 45968528.00 HSA03 GENE7024 46023944.00 HSA03 GENE7024 46023944.00 HSA03	GENE0951 - BAC_385-M9 GENE1047 - GENE6949 - GENE12174 -	424.00 453.00 464.00 472.00 475.00	- GENE0951 BAC_385-M9 - GENE1047 - GENE6949 - GENE12174	CFA20 GENE12174 12251280.00 CFA20 GENE1047 12366043.00 CFA20 GENE6949 12366043.00 CFA20 GENE1046 13533813.00 CFA20 GENE1046 135417502.00
GENE1123 46367992.00 HSA03 GENE7026 46372768.00 HSA03 GENE1124 46451544.00 HSA03 GENE1130 46642612.00 HSA03	BAC_381-H4 	480.00 493.00 519.00 526.00	BAC_381-M4 -GENE1046 -GENE6948 -GENE1045 -GENE	CFA20 GENE1045 15624794.00 CFA20 GENE1044 16021576.00 CFA20 GENE6946 16021576.00 CFA20 GENE6945 16535030.00
GENE1127 46721560.00 HSA03 GENE7029 46863692.00 HSA03 GENE1128 47103424.00 HSA03 GENE1129 47230152.00 HSA03	GENE1044	537.00 540.00 560.00 580.00	-GENE1044	CFA20 GENE1042 17127400.00 CFA20 GENE1041 17231680.00 CFA20 GENE6943 18997992.00 CFA20 GENE1040 19635612.00
GENE7032 47347368.00 HSH03 GENE7033 47573564.00 HSA03 GENE7035 48169348.00 HSA03 GENE7036 48296456.00 HSA03 GENE12200 48413408.00 HSA03	GENE1041 -GENE12430 -GENE12430 -GENE12430 -GENE12430 -GENE1040 -GENE1040 -GENE1076	593.00 593.00 613.00 628.00 648.00	-GENE1041 -GENE12430 -GENE6943 -GENE1040 -GENE1076	CFH20 GENE1076 20937714.00 CFA20 GENE12222 21724606.00 CFA20 GENE12221 22049724.00 CFA20 GENE1190 22196694.00 CFA20 GENE7092 22549548.00
GENE7037 48461696.00 HSA03 GENE12201 48561944.00 HSA03 GENE7038 48595880.00 HSA03 GENE12203 48713408.00 HSA03	BAC_385-L13 -GENE12222 - -GENE12221 - -GENE7092 -	661.00 670.00 676.00 682.00	BAC_385-L13 -GENE12222 -GENE12221 -GENE7092	CFA20 GENE1189 22840222.00 CFA20 GENE1188 23113472.00 CFA20 GENE7090 23224584.00 CFA20 GENE1187 23627232.00
GENE12204 48940752.00 HSA03 GENE1138 49196144.00 HSA03 GENE7044 49412808.00 HSA03 GENE1142 49470128.00 HSA03	-GENE7090 - BAC_385-B19 -GENE1187 - -GENE1190 - -CENE1199	688.00 694.00 708.00 723.00	-GENE7090 BAC_385-B19 -GENE1187 -GENE1190 CENE1199	CFA20 GENE7089 24581800.00 CFA20 GENE1186 25457288.00 CFA20 GENE7087 25457288.00 CFA20 GENE1184 25773674.00
GENE1141 49506744.00 HSH03 GENE1144 49819952.00 HSA03 GENE7047 50210040.00 HSA03 GENE12207 50315940.00 HSA03 GENE7046 50374168.00 HSA03	-GENE1100 -GENE1109 -GENE1184 -GENE1186 -GENE7087	730.00 734.00 790.00 794.00 815.00	-GENE1100 -GENE1189 -GENE1184 -GENE1186 -GENE7087	CFH20 GENE12220 25773674.00 CFA20 GENE7086 26626850.00 CFA20 GENE1183 27069436.00 CFA20 GENE7085 27336320.00 CFA20 GENE1182 27839592.00
GENE7045 50604540.00 HSA03 GENE12206 50668472.00 HSA03 GENE1148 51416336.00 HSA03 GENE1149 51704872.00 HSA03	-GENE12220 - -GENE7089 - -GENE7086 - BAC_372-A13	818.00 836.00 870.00 883.00	-GENE12220 -GENE7089 -GENE7086 BAC_372-A13	CFA20 GENE7084 27839592.00 CFA20 GENE1181 28288400.00 CFA20 GENE7083 28823398.00 CFA20 GENE1180 29337714.00
GENE1154 51741696.00 HSA03 GENE1150 51822368.00 HSA03 GENE1152 52200460.00 HSA03 GENE7055 52281688.00 HSA03	-GENE7085 - -GENE1183 - -GENE1182 - -GENE7084 -	892.00 932.00 964.00 988.00	-GENE7085	CFA20 GENE7082 29507584.00 CFA20 GENE1179 29626528.00 CFA20 GENE1178 29920374.00 CFA20 GENE7081 29920374.00
GENE1153 52361792.00 HSA03 GENE7057 52530128.00 HSA03 GENE1159 52572768.00 HSA03 GENE7060 53082664.00 HSA03 GENE7060 5316672.00 HSA03	-GENE1161 - -GENE7083 - -GENE7082 - -GENE1179 - -GENE1180 -	1002.00 1008.00 1024.00 1041.00 1047.00	-GENE1181 -GENE7083 -GENE7082 -GENE1179 -GENE1180	CFA20 GENE7080 30228560.00 CFA20 GENE1177 30332360.00 CFA20 GENE7079 30453652.00 CFA20 GENE1176 30845332.00 CFA20 GENE1502 30845332.00
GENE7061 53221492.00 HSA03 GENE12212 53310640.00 HSA03 GENE7062 53491828.00 HSA03 GENE12213 53871132.00 HSA03		1072.00 1082.00 1095.00 1101.00	-GENE1177 -GENE1176 -GENE1178 -GENE7081	CFA20 GENE7078 31258488.00 CFA20 GENE1174 31675950.00 CFA20 GENE7076 34718772.00 CFA20 GENE7074 35059096.00
GENE1162 54076112.00 HSA03 GENE7064 54869044.00 HSA03 GENE1161 54958224.00 HSA03 GENE7065 55459768.00 HSA03	-GENE7080 - -GENE7079 - -GENE8502 - -GENE1174 -	1104.00 1109.00 1115.00 1124.00	-GENE7080 -GENE7079 -GENE8502 -GENE1174	CFA20 GENE1170 35247216.00 CFA20 GENE1169 35355616.00 CFA20 GENE7071 35501932.00 CFA20 GENE1168 35776608.00
GENE1165 56482464.00 HSA03 GENE7066 56584144.00 HSA03 GENE1164 56613668.00 HSA03 GENE12214 56763004.00 HSA03	GENE7078 - GENE11025 - GENE1170 - GENE1170 - GENE7076 -	1127.00 1160.00 1184.00 1187.00	-GENE7078 -GENE11025 -GENE1170 -GENE7076 -CENE7074	CFA20 GENE12217 35776608.00 CFA20 GENE7068 36043048.00 CFA20 GENE1165 36142660.00 CFA20 GENE12214 36424896.00
GENE/068 5/191100.00 HSH03 GENE12217 57450712.00 HSA03 GENE1168 57514244.00 HSA03 GENE1170 57547016.00 HSA03 GENE7071 57783480.00 HSA03	GENETOTI - GENETOTI - GENETICS - GENETICS - GENETICS - GENETICS - GENETICS -	1190.00 1193.00 1199.00 1203.00 1209.00	-GENE7074 -GENE7071 -GENE1169 -GENE1168 -GENE12217	CFH20 GENE/066 36519752.00 CFA20 GENE1164 36519752.00 CFA20 GENE7065 37662616.00 CFA20 GENE1161 38140704.00 CFA20 GENE1162 38140704.00
GENE1169 57959792.00 HSA03 GENE7074 58370700.00 HSA03 GENE7076 58809736.00 HSA03 GENE1174 61631356.00 HSA03	GENE7068 - GENE7066 - GENE12214 - GENE1165 -	1215.00 1224.00 1227.00 1237.00	-GENE7068 -GENE7066 -GENE12214 -GENE1165	CFA20 GENE7064 38140704.00 CFA20 GENE12213 38970136.00 CFA20 GENE7062 39319720.00 CFA20 GENE12212 39473476.00
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GENE7080 63780064.00 HSA03 GENE1178 63933068.00 HSA03 GENE7081 64089772.00 HSA03 GENE1179 64482196.00 HSA03	-GENE7064 - GENE12212 - GENE7062 - GENE1159 - CENE10010	1305.00 1330.00 1343.00 1353.00	-GENE7064 -GENE12212 -GENE7062 -GENE1159 -GENE12212	CFA20 GENE11948 40024532.00 CFA20 GENE7057 40075376.00 CFA20 GENE1154 40126464.00 CFA20 GENE1153 40266380.00
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GENE7164 128644384.00 HSA03 GENE1262 128678720.00 HSA03 GENE7165 128760320.00 HSA03 GENE1263 128963640.00 HSA03		1567.00 1585.00 1592.00 1596.00	-GENE7035 -GENE7033 -GENE1130 -GENE1129	CFA20 GENE7026 45181652.00 CFA20 GENE1123 45181652.00 CFA20 GENE1124 45181652.00 CFA20 GENE1124 45181652.00 CFA20 GENE1122 45292692.00
GENE12238 129158320.00 HSA03 GENE7167 129501616.00 HSA03 GENE7168 129617360.00 HSA03 GENE1266 129659568.00 HSA03		1599.00 1609.00 1619.00 1622.00	-GENE7032 -GENE7026 -GENE7029 -GENE1123	CFA20 GENE1121 45357240.00 CFA20 GENE7024 45357240.00 CFA20 GENE7022 45605624.00 CFA20 GENE1119 45695952.00
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GENE12784 387157.00 HSA19 GENE5117 955946.00 HSA19 GENE5118 1275098.00 HSA19 GENE12788 1341856.00 HSA19		1685.00 1698.00 1718.00 1721.00	-GENE1119 -GENE1118 -GENE1116 -GENE1117	CFA20 GENE11099 46767624.00 CFA20 GENE11098 46883420.00 CFA20 GENE5213 46942800.00 CFA20 GENE11097 46989912.00
GENES119 1425616.00 HSH19 GENE11005 1478726.00 HSA19 GENE5123 2010482.00 HSA19 GENE11008 2029118.00 HSA19 GENE5124 2071855.00 HSA19	GENE / 019 - - GENE5216 - - GENE11100 - - GENE5214 - - GENE11099 -	1724.00 1727.00 1734.00 1747.00 1750.00	-GENE2116 -GENE5216 -GENE11100 -GENE5214 -GENE11099	CFH20 GENE5211 47077124.00 CFA20 GENE12809 47123224.00 CFA20 GENE5209 47380320.00 CFA20 GENE5208 47449264.00 CFA20 GENE11092 47507124.00
GENE5125 2272444.00 HSA19 GENE11010 2364619.00 HSA19 GENE11011 2497459.00 HSA19 GENE12791 2668637.00 HSA19	/GENE5213 - /GENE5209 - /GENE11098 - /GENE11097 -	1754.00 1761.00 1771.00 1774.00	-GENE5213 -GENE5209 -GENE11098 -GENE11097	CFA20 GENE5207 47606612.00 CFA20 GENE5206 47733808.00 CFA20 GENE11089 47861820.00 CFA20 GENE5204 47914592.00
GENE11012 2757904.00 HSA19 GENE5127 2801816.00 HSA19 GENE11014 3108579.00 HSA19 GENE11015 3233014.00 HSA19	-GENE12809 - -GENE5211 - -GENE5208 - -GENE11092 - -GENE5207	1777.00 1796.00 1822.00 1834.00	-GENE12809 -GENE5211 -GENE5208 -GENE11092	CFA20 GENE11088 47960696.00 CFA20 GENE5203 48056600.00 CFA20 GENE5202 48116520.00 CFA20 GENE11084 48390940.00
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GENE5138 4611218.00 HSA19 GENE12794 4654889.00 HSA19 GENE11024 4743975.00 HSA19 GENE11025 4892502.00 HSA19	-GENE5202 - -GENE5203 - -GENE11084 - -GENE5199 -	1874.00 1877.00 1883.00 1893.00	-GENE5202 -GENE5203 -GENE11084 -GENE5199	CFA20 GENE11079 49138680.00 CFA20 GENE5194 49138680.00 CFA20 GENE5193 49444280.00 CFA20 GENE11077 49545584.00
GENE11026 5173661.00 HSA19 GENE5143 5543753.00 HSA19 GENE11028 5601724.00 HSA19 GENE5144 5740205.00 HSA19 GENE5146 6133570 00 HSA19	-GENES197 - -GENE11079 - -GENE11083 - -GENES196 - -GENES194 -	1905.00 1911.00 1922.00 1934.00 1937.00	-GENES197 -GENE11079 -GENE11083 -GENES196 -GENES194	CFA20 GENE5192 49613656.00 CFA20 GENE5190 49881524.00 CFA20 GENE11073 50008664.00 CFA20 GENE5188 50386244.00 CFA20 GENE5187 50845888.00
GENE5148 6430579.00 HSA19 GENE5147 6441416.00 HSA19 GENE11033 6541109.00 HSA19 GENE11034 6693845.00 HSA19	-GENE12806 - -GENE5192 - -GENE11077 - -GENE5193 -	1940.00 1950.00 1953.00 1956.00	-GENE12806 -GENE5192 -GENE11077 -GENE5193	CFA20 GENE11070 50951100.00 CFA20 GENE11069 51071628.00 CFA20 GENE12804 51325016.00 CFA20 GENE5183 51352288.00
GENE5149 6733175.00 HSA19 GENE5151 7254547.00 HSA19 GENE11036 7424285.00 HSA19 GENE11037 7581294.00 HSA19 GENE11037	-GENE5190 - -GENE11073 - -GENE5188 - -GENE11070 -	1966.00 1969.00 1974.00 1992.00	-GENE5190 -GENE11073 -GENE5188 -GENE11070 -GENE5187	CFA20 GENE12802 51554520.00 CFA20 GENE11066 51554520.00 CFA20 GENE5181 51554520.00 CFA20 GENE5180 51964324.00
GENE11038 7718237.00 HSA19 GENE11040 8023918.00 HSA19 GENE11041 8295187.00 HSA19 GENE5157 8392670.00 HSA19 GENE5157 8392670.00 HSA19	-GENE5187 - -GENE11069 - -GENE5183 - -GENE12804 -	1995.00 1998.00 2008.00 2013.00 2033.00	GENES107 -GENE11069 -GENE5183 -GENE12804 -GENE12802	CFH20 GENE5178 52169640.00 CFA20 GENE11062 52356004.00 CFA20 GENE5177 52356004.00 CFA20 GENE11061 52356004.00 CFA20 GENE5176 50487000.00
GENE11043 8575885.00 HSH19 GENE5158 8790018.00 HSA19 GENE5158 8790018.00 HSA19 GENE11044 8814340.00 HSA19 GENE5160 8916944.00 HSA19	GENE 12802 - GENE 11066 - GENE 5181 - GENE 5181 - GENE 5187 - GENE 5177 -	2036.00 2042.00 2055.00 2058.00	-GENE11066 -GENE5181 -GENE11062 -GENE5177	CFA20 GENE11060 52668372.00 CFA20 GENE5175 52746388.00 CFA20 GENE5175 52746388.00 CFA20 GENE5174 52853072.00 CFA20 GENE5173 52974568.00
GENE5162 9268472.00 HSA19 GENE11049 9825647.00 HSA19 GENE5165 9939434.00 HSA19 GENE11051 10152009.00 HSA19	GENE5176 - GENE11061 - GENE11060 - GENE5180 -	2061.00 2064.00 2069.00 2078.00	-GENE5176 -GENE11061 -GENE11060 -GENE5180 -GENE5170	CFA20 GENE5172 53084656.00 CFA20 GENE5171 53198024.00 CFA20 GENE5170 53358228.00 CFA20 GENE11055 53358228.00
GENEL12799 10367172.00 HSA19 GENE5168 10433171.00 HSA19 GENE5169 10537769.00 HSA19 GENE5170 10672972.00 HSA19 GENE11055 10766888 00 HSA19	GENE5178 - GENE5175 - BAC_385-G7 GENE5173 -	2081.00 2087.00 2097.00 2114.00 2124.00	-GENES175 BAC_385-G7 -GENES173 -GENES174	CFM20 GENES169 53474876.00 CFA20 GENE5168 53551852.00 CFA20 GENE12799 53596320.00 CFA20 GENE11051 53741460.00 CFA20 GENE5165 53868000
GENE5171 10894673.00 HSA19 GENE5172 11004913.00 HSA19 GENE5173 11166509.00 HSA19 GENE5174 11335357.00 HSA19	GENES174 GENES172 GENES170 GENES170 GENES171 GENES171	2130.00 2145.00 2151.00 2157.00	-GENE5172 -GENE5170 -GENE11055 -GENE5171	CFA20 GENE11049 54012720.00 CFA20 GENE5162 54206700.00 CFA20 GENE5160 54681744.00 CFA20 GENE11044 54736720.00
GENE5175 11458549.00 HSA19 GENE11060 11548865.00 HSA19 GENE5176 12576455.00 HSA19 GENE11061 12621720.00 HSA19	GENE5169 - GENE5168 - GENE12799 - GENE5165 -	2167.00 2173.00 2176.00 2179.00	-GENE5169 -GENE5168 -GENE12799 -GENE5165 -GENE11051	CFA20 GENE5151 54885916.00 CFA20 GENE11036 55118592.00 CFA20 GENE11037 55252684.00 CFA20 GENE11038 55380104.00
GENESITZ 12640865.00 HSA19 GENE11062 12708519.00 HSA19 GENE5178 12837792.00 HSA19 GENE5180 13087319.00 HSA19 GENE12802 13730892 00 HSA19	GENE11051 - GENE11049 - GENE5162 - GENE5160 - GENE5160 -	2182.00 2184.00 2194.00 2197.00 2204.00	-GENE11011 -GENE5162 -GENE5160 -GENE5151	CFA20 GENE11040 55600096.00 CFA20 GENE11041 55768256.00 CFA20 GENE5157 55839008.00 CFA20 GENE11042 55887708.00 CFA20 GENE5158 55997700.00
GENE11066 13801673.00 HSA19 GENE12804 14020732.00 HSA19 GENE5181 14226178.00 HSA19 GENE5181 14346729.00 HSA19	GENEI1044 - GENEI1044 - GENEI1037 - GENEI1036 - GENEI1038 -	2207.00 2225.00 2228.00 2238.00	-GENE11044 -GENE11037 -GENE11036 -GENE11038	CFA20 GENE11043 55966232.00 CFA20 GENE11034 56385640.00 CFA20 GENE5149 56445124.00 CFA20 GENE11033 56486072.00
GENE11070 14451434.00 HSA19 GENE5183 14506474.00 HSA19 GENE5187 14687096.00 HSA19 GENE5188 14797712.00 HSA19 GENE5188	- GENE11040 	2242.00 2245.00 2252.00 2258.00	-GENE11040 -GENE11041 -GENE11042 -GENE11043 -GENE5152	CFA20 GENE5148 56558256.00 CFA20 GENE5147 56628516.00 CFA20 GENE5146 56803064.00 CFA20 GENE5144 57076864.00
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GENELO203 17629716.00 HSA19 GENEL11088 17752840.00 HSA19 GENE5204 17806192.00 HSA19 GENEL11089 17914372.00 HSA19 GENE5202 18058812.00 HS019		2378.00 2387.00 2390.00 2396.00	-GENE11018 -GENE5137 -GENE5135 -GENE11022	CFA20 GENE11014 59057440.00 CFA20 GENE11012 59447044.00 CFA20 GENE5127 59447044.00 CFA20 GENE12791 59494220.00 CFA20 GENE11011 59566172.00
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GENE11098 19104100.00 HSA19 GENE5214 19190644.00 HSA19 GENE11099 19241432.00 HSA19 GENE11100 19486716.00 HSA19		2493.00 2496.00 2499.00 2503.00	-GENE11005 -GENE11010 -GENE11008 -GENE12791	CFA20 GENE5117 60735656.00 CFA20 GENE12784 61041792.00 CFA20 GENE10997 61107700.00
GENE5216 19541840.00 HSA19		2516.00 2527.00 2534.00 2538.00	- GENE5123 - GENE12788 - GENE5119 - GENE5118 - GENE5117	
	W-GENE5117 - 	2555.00 2559.00	-GENE12784 -GENE10997	



RH MAP CFA21

GENE1878 1 GENE5757 4 GENE2437 6	32339856.00 HSA05 7432604.00 HSAX 4571288.00 HSA07	-GENES -GENES -GENES	3608 - 0.0 3607 - 43. 3500 - 51.	00	-GENE3608 -GENE3607 -GENE9500 -GENE9500 -GENE9500 -GENE9500 -GENE9500 -GENE9500 -GENE9500 -GENE3612 -GENE3
GENE9885 1: GENE13492 9: GENE9285 3: GENE9286 4	22489488.00 HSA12 3230544.00 HSA10 697553.00 HSA11 076782.00 HSA11	-GENED -GENED -GENED -GENED	13192 - 57. 13602 - 71. 3606 - 107 3605 - 130	,00 ,00 7.00).00	-GENE13192 - CFA21 GENE9502 8609267.00 -GENE13602 - GENE3606 - GENE3606 - GENE3606 - GENE3605 - GE
GENE3392 4 GENE3393 4 GENE13520 4 GENE13520 4	085016.00 HSA11 370468.00 HSA11 416806.00 HSA11	GENES	9496 - 135 3610 - 159 9502 - 172 3612 - 177	5.00).00 2.00	-GENE9496 -GENE3610 -GENE9502 CFR21 GENE3609 9439475.00 CFR21 GENE3609 9574277.00 CFR21 GENE3608 9659633.00 CFR21 GENE3608 9659633.00
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GENE13169 6: GENE9297 6: GENE3404 6:	229915.00 HSA11 376681.00 HSA11 425523.00 HSA11		13558 - 423 3484 - 425 3490 - 434 2601 - 475	3.00 5.00 4.00	-GENE13558 CFA21 GENE3484 13409208.00 -GENE3484 CFA21 GENE3484 13409208.00 CFA21 GENE3600 13809556.00 CFA21 GENE3490 13809556.00 CFA21 GENE3484 13409208.00
GENE13524 6 GENE9299 6 GENE3403 6 GENE9300 6	461791.00 HSH11 626732.00 HSA11 741431.00 HSA11 779996.00 HSA11	-GENES -GENES -GENES	9491 - 522 9489 - 552 9598 - 591	2.00 2.00 2.00	-GENE3989
GENE3407 6/ GENE13525 6/ GENE3409 7/	877061.00 HSA11 941108.00 HSA11 403664.00 HSA11	-GENES -GENES	3596 - 614 3485 - 622 13191 - 634	+.00 2.00 +.00	-GENE3596 CFA21 GENE13599 15766193.00 -GENE9485 CFA21 GENE9485 16200454.00 CFA21 GENE9485 16200454.00 CFA21 GENE9486 16200454.00
GENE9303 7 GENE3410 7 GENE9304 7 GENE13526 7	616200.00 HSH11 781290.00 HSA11 834368.00 HSA11 924316.00 HSA11	-GENES -GENES -GENES -GENES	3483 - 689 3594 - 709 3597 - 719).00).00).00	-GENE3595
GENE9305 8 GENE9306 8 GENE3411 8	094594.00 HSA11 399143.00 HSA11 468879.00 HSA11	GENES	9486 - 736 3595 - 743 3592 - 766	5.00 3.00 5.00	-GENE9486
GENE13527 8/ GENE3412 8/ GENE9308 9/ GENE3415 9/	699537.00 HSA11 706289.00 HSA11 051913.00 HSA11 1299874.00 HSA11	-GENED -GENED -GENED -GENED	13598 - 772 9481 - 783 13597 - 796 9480 - 810	2.00 3.00 5.00).00	- GENE13598 CFA21 GENE9480 19142208.00 - GENE9481 CFA21 GENE3590 19142208.00 - GENE13597 CFA21 GENE13597 19265492.00 - GENE9480 CFA21 GENE13597 19265492.00 - GENE9480 CFA21 GENE9479 23065444.00
GENE9309 9 GENE13171 9 GENE3417 9	370258.00 HSA11 465261.00 HSA11 793570.00 HSA11	rgenes Bac_3; rgenes	3590 - 837 75-A16 879 3479 - 912	2.00 2.00	-GENE3590 CFA21 GENE3588 23241120.00 BAC_375-A16 CFA21 GENE9478 23407444.00 CFA21 GENE9478 23407444.00 CFA21 GENE13596 23512268.00
GENE3416 1 GENE9312 1 GENE9313 1 GENE3420 1	0052818.00 HSA11 0491020.00 HSA11 0554007.00 HSA11 0566914.00 HSA11	-GENES -GENES -GENES	9477 - 921 13596 - 932 9478 - 943 9476 - 946	2.00 3.00 5.00	-GENE9477
GENE3419 1 GENE13529 1 GENE3421 1	0585188.00 HSA11 0678344.00 HSA11 0789743.00 HSA11	-GENES -GENES -GENES	3587 - 949 9475 - 959 2437 - 962).00).00 2.00	-GENE3587CFA21 GENE2437 23892424.00 -GENE9475CFA21 GENE9474 24327154.00 -GENE2437CFA21 GENE13594 24539356.00
GENE3422 1 GENE9316 1: GENE3423 1: GENE13531 1:	1882825.00 HSA11 2205417.00 HSA11 2279662.00 HSA11 2926959.00 HSA11	GENES BAC_38 /-GENES	9474 - 969 85-G1 975 13594 - 993 3582 - 996	5.00 5.00 5.00 5.00	- GENE 9474 CFA21 GENE 3582 24539356.00 BAC_385-G1 CFA21 GENE 13593 24690672.00 - GENE 13594 CFA21 GENE 13190 24779256.00 CFA21 GENE 13190 24779256.00 CFA21 GENE 13580 25086608.00
GENE9318 1: GENE9319 1: GENE3424 1:	3373313.00 HSA11 3477556.00 HSA11 3515811.00 HSA11	-GENE1 -GENE1 -GENE1	13593 - 100: 13190 - 102: 13592 - 103:)3.00 23.00 32.00	-GENE13593
GENE9320 1: GENE3425 1: GENE3428 1: GENE9322 1:	3968318.00 HSA11 4234178.00 HSA11 4772290.00 HSA11 4865849 00 HSA11	-GENES -GENES -GENES	3576 - 103 3575 - 104 3469 - 105 3470 - 105	99.00 8.00 51.00	-GENE3576 -GENE3575 -GENE9469 -GENE9469 -GENE9470
GENE3429 1 GENE3430 1 GENE13534 1	5064202.00 HSA11 5165113.00 HSA11 5211483.00 HSA11	-GENEC -GENEC -GENEC	3588 - 106 3578 - 107 3579 - 109	6.00 5.00 3.00	-GENE3588 -GENE3578 -GENE3579 -GENE3579
GENE13535 1 GENE9325 1 GENE3431 1 GENE12526 1	6302914.00 HSA11 6740599.00 HSA11 6740899.00 HSA11 6740899.00 HSA11	-GENES -GENES -GENES	3580 - 110 3577 - 111 3467 - 113 3465 - 114	0.00 11.00 32.00	-GENE3580 - CFA21 GENE9465 26604912.00 -GENE9467 - CFA21 GENE9885 26604912.00 CFA21 GENE9885 26604912.00 CFA21 GENE3573 26604912.00 CFA21 GENE3573 26604912.00 CFA21 GENE3573 26604912.00
GENE13536 1 GENE13537 1 GENE13538 1 GENE9327 1	7075360.00 HSA11 7114560.00 HSA11 7300996.00 HSA11	-GENES -GENES	3685 - 1149 3574 - 115 3573 - 116	5.00 1.00 6.00	-GENE9885
GENE9328 1 GENE3432 1 GENE9329 1 GENE9329 1	7512112.00 HSA11 7550068.00 HSA11 8005634.00 HSA11	-GENES -GENES -GENES	9457 - 119' 3565 - 124 9458 - 127 3460 - 127; $ $	99.00 1.00 71.00 78.00	-GENE9457 -GENE3565 -GENE9458 -GENE9450 CFA21 GENE3567 27289196.00 CFA21 GENE3567 27289196.00 CFA21 GENE13590 27289196.00 CFA21 GENE13590 27289196.00 CFA21 GENE13590 27289196.00
GENE3436 1/ GENE3437 1/ GENE13172 1/ GENE13543 1/	8351474.00 HSA11 8420580.00 HSA11 8727892.00 HSA11	GENES /-GENES /-GENES	3567 - 129 3566 - 130 13589 - 130	0.00 0.00)1.00)8.00	-GENE3567 -GENE3566 -GENE13589 -GENE13589 -GENE13589 -GENE13589 -GENE13589 -GENE13589 -GENE13589 -GENE3566 -GENE3566 -GENE3566 -GENE3566 -GENE3566 -GENE3589 -GENE3566 -GENE3589 -GENE3566 -GENE3589 -GENE3566 -GENE3589 -GEN
GENE13173 1 GENE13544 1 GENE3438 1 GENE3438 1	9134964.00 HSA11 9187208.00 HSA11 9444096.00 HSA11	-GENE GENES -GENES	13590 - 131 3571 - 133 3463 - 133 3463 - 133	19.00 33.00 39.00	-GENE13590 -GENE3571 -GENE9463 CFA21 GENE3565 27628044.00 CFA21 GENE9457 27832076.00 CFA21 GENE9456 28067492.00
GENE13545 1 GENE13546 2 GENE13547 2 GENE13548 2	9968576.00 HSA11 0105050.00 HSA11 0352888.00 HSA11 0652928.00 HSA11	GENES GENES -GENES BRC_3	0462 - 134 0461 - 135 73-I14 135	5.00 6.00 50.00 58.00	-GENE13591
GENE3444 2 GENE13549 2 GENE13550 2	1424204.00 HSA11 1519954.00 HSA11 2362116.00 HSA11	GENES	9456 - 137 9451 - 139 9560 - 140	74.00 94.00 95.00	-GENE9456
GENE13551 2: GENE9341 2: GENE3448 2: GENE12872 2:	2741256.00 HSA11 4723316.00 HSA11 4968776.00 HSA11 5545124.00 HSA11	-GENES -GENES -GENES	9452 - 1413 9285 - 1413 9558 - 1429 9562 - 1430	15.00 18.00 25.00 36.00	-GENE39452
GENE3449 20 GENE3450 20 GENE9344 20	6672196.00 HSA11 7101006.00 HSA11 7324264.00 HSA11	-GENES -GENES	9455 - 144 13188 - 145 13189 - 146	7.00 8.00 9.00	-GENE9455 -GENE13188 -GENE13189 -GENE1318 -GENE13
GENE9495 2 GENE13175 2 GENE13552 2 GENE3452 2	7351714.00 HSA11 7487532.00 HSA11 8062862.00 HSA11 8275696.00 HSA11	HIGHNEY HIGENEY HIGENEY HIGENEY	13520 - 149 13520 - 149 13492 - 149 3395 - 150	90.00 97.00 91.00	-GENE 9288 30039904.00 -GENE 13520
GENE3451 2 GENE3600 4 GENE3484 5	8291080.00 HSA11 9319848.00 HSA11 0361920.00 HSA11	-GENE 1 -GENE 2 -GENE 2 -GENE 2	13168 - 151: 3290 - 152: 3397 - 155	12.00 23.00 50.00	GENE13168 CFA21 GENE13522 30500592.00 GENE3397 CFA21 GENE3400 30664232.00 -GENE3397 CFA21 GENE13523 30760168.00
GENE9396 5 GENE3503 5 GENE9397 5 GENE3504 5	9343632.00 HSA11 9406448.00 HSA11 9632400.00 HSA11 9724376.00 HSA11	HOLENES HOLENES HOLENES HOLENES HOLENES	3392 - 1593 3393 - 161 3286 - 1613 3396 - 163	53.00 10.00 18.00 30.00	-GENE3392 - CFA21 GENE9294 30904610.00 -GENE3393 - CFA21 GENE3402 31600782.00 CFA21 GENE9296 31791118.00 CFA21 GENE9296 31791118.00 CFA21 GENE13169 31845684.00
GENE9398 5 GENE3505 5 GENE9399 5	9834772.00 HSA11 9939680.00 HSA11 9997776.00 HSA11	- GENE: - GENE: - GENE:	13521 - 164 3399 - 165 13522 - 167	1.00 7.00 4.00	-GENE13521 -GENE3399 -GENE13522 -GENE13522 -GENE13522 -GENE13522 -GENE3404 -
GENE3558 7 GENE9451 7 GENE9452 7 GENE3560 7	1360160.00 HSA11 1397672.00 HSA11 1536416.00 HSA11 1632592.00 HSA11	HOLENES HOLENES HOLENES HOLENES HOLENES	9400 - 1893 13523 - 1693 3294 - 1713 3402 - 1743	53.00 97.00 17.00 53.00	-GENE3523
GENE13188 7 GENE13189 7 GENE9455 7	1744456.00 HSA11 2019024.00 HSA11 2258856.00 HSA11	HGENES HGENES HGENES	8296 - 176 13169 - 177 13524 - 178	9.00 7.00 9.00	-GENE9296 -GENE13169 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE13524 -GENE3409 -GENE3409 -GENE3303 -GENE34
GENE9456 73 GENE9457 73 GENE3565 73 GENE9458 73	2666888.00 HSH11 2829208.00 HSA11 3088752.00 HSA11 3155824.00 HSA11	-GENES -GENES -GENES -GENES -GENES	297 - 180 299 - 180 3407 - 182 300 - 184)0.00)8.00 25.00 3.00	-GENE3297 - CFA21 GENE3410 33650384.00 -GENE3299 - CFA21 GENE3304 33650384.00 CFA21 GENE3304 33650384.00 CFA21 GENE3304 33744528.00 CFA21 GENE3411 33794336.00
GENE3566 7: GENE13589 7: GENE13590 7:	3242144.00 HSA11 3300344.00 HSA11 3406920.00 HSA11		3403 - 1860 3404 - 1900 3409 - 1979	6.00 6.00 9.00	-GENE3403 -GENE3404 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3409 -GENE3403 -GENE3403 -GENE3403 -GENE3404 -GENE340
GENE9460 73 GENE13591 73 GENE9461 73 GENE9462 73	3449984.00 HSH11 3494576.00 HSA11 3608024.00 HSA11 3621344.00 HSA11	GENEL GENES GENES GENES	3410 - 201 3411 - 201 3526 - 202	11.00 18.00 21.00	-GENE13525
GENE9463 7: GENE3571 7: GENE3562 7:	3807864.00 HSA11 3899232.00 HSA11 3935896.00 HSA11	HGENES GENES	3303 - 2023 3304 - 2033 13527 - 2053	28.00	-GENE9303 GENE9303 GENE9304 GENE13527 GENE13527 GENE13527 GENE13527
GENE39465 7 GENE3573 7 GENE3574 7 GENE3467 7	42/6/04.00 HSH11 4402888.00 HSA11 4702592.00 HSA11 4841744.00 HSA11	GENES GENES GENES	3412 - 208 306 - 208 305 - 211	31.00 31.00 34.00	-GENE3312 - GENE3312 - GENE3313 -
GENE3575 7 GENE3576 7 GENE3567 7	5038216.00 HSA11 5166040.00 HSA11 5201840.00 HSA11	- GENES - GENES	327 - 214 13538 - 217 3416 - 222	8.00 4.00 20.00	-GENE9327 -GENE13538 -GENE3416 GENE3416 CFA21 GENE3421 36200308.00 CFA21 GENE3422 37236836.00
GENE39469 75 GENE3577 75 GENE3578 75 GENE3578 75	5236068.00 HSA11 5452976.00 HSA11 5627608.00 HSA11 5797728.00 HSA11	-GENES -GENES -GENES	223 13529 224 3420 224 3313 225	5.00 4.00	-GENE13529 -GENE13529 -GENE3420 -GENE3420 -GENE3313 -GENE3420 -GENE3313 -GENE3424 -GENE3424 -GENE3424 -GENE3424 -GENE3424 -GENE3424 -GENE3314 -GENE3314 -GENE3314 -GENE3424 -GENE3314 -GENE3424 -GENE3424 -GENE3314 -GENE3424 -GENE3314 -GENE3424 -GENE344 -GENE344 -GENE344 -GENE344 -G
GENE13592 7 GENE3580 7 GENE13190 7	5960112.00 HSA11 6097936.00 HSA11 6396048.00 HSA11	BAC_33 GENES BAC_33	81-D11 2259 3419 - 2269 81-I15 2269	59.00 53.00 57.00	BAC_381-D11 -GENE3419 BAC_381-I15 CFA21 GENE9318 38572888.00 CFA21 GENE9319 38677024.00 CFA21 GENE3425 38677024.00
GENE13593 71 GENE13594 71 GENE9474 7 GENE9475 7	7052944.00 HSA11 7052944.00 HSA11 7309296.00 HSA11	HIGENES HIGENES HIGENES	227 13171 - 228 3417 - 228 3415 - 229	33.00 37.00 91.00	-GENE13171 -GENE3417 -GENE3415 -GENE3415 -GENE3415 -GENE3415 -GENE3415 -GENE3428 -GENE3428 -GENE3428 -GENE3428 -GENE3428 -GENE3428 -GENE3429
GENE9476 7 GENE9477 7 GENE3579 7 GENE3579 7	7500704.00 HSA11 7610296.00 HSA11 7695128.00 HSA11		3309 - 230 3308 - 231 3316 - 233 3422 - 233	07.00 19.00 39.00	-GENE9309 -GENE9308 -GENE9316 -GENE9316 -GENE93422 -GENE93422 -GENE93422
GENE 13596 7 GENE 9478 7 GENE 3588 7 GENE 9479 7	7770320.00 MSA11 7873352.00 MSA11 8106112.00 MSA11 8293056.00 MSA11	HAGENES HAGENES HAGENES	2343 3423 - 234 3424 - 238 13531 - 239	4.00 2.00	-GENE3423 -GENE3424 -GENE13531 -GENE13531 -GENE13531 -GENE13531 -GENE13531 -GENE13531 -GENE13531 -GENE13531 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3432 -GENE3433 -GENE343 -GENE34 -GENE34 -GENE343 -GENE34 -GENE343 -GENE34 -GENE
GENE3582 7 GENE3587 7 GENE13597 8 GENE0400	8378344.00 HSA11 9465368.00 HSA11 2287192.00 HSA11 2357400 00 HSA11		318 - 242 319 - 244 320 - 245 3425 - 245	25.00 11.00 56.00	-GENE9318 -GENE9319 -GENE9320 -GENE9320 -GENE93220 -GENE93220 -GENE93220 -GENE93220 -GENE93220 -GENE93227 -GENE9327 -GENE9327 -GENE9327 -GENE9327
GENE3590 8: GENE3590 8: GENE9481 8: GENE13598 8:	2507680.00 HSA11 2507680.00 HSA11 2600872.00 HSA11 2621888.00 HSA11	HABINES HABINES HABINES BAC_33	13534 - 2499 322 - 2500 85-F17 250	95.00 92.00 99.00	-GENE13534 -GENE13534 -GENE9322 BAC_385-F17 CFH21 GENE9328 42316504.00 CFR21 GENE9329 42827364.00 CFR21 GENE3436 42869312.00 CFR21 GENE3437 43066448.00
GENE3592 8: GENE9483 8: GENE13191 8:	2920152.00 HSA11 5091256.00 HSA11 5323248.00 HSA11	-GENES -GENES -GENES	3429 - 2523 3428 - 253 3430 - 253 2421 - 253	28.00 31.00 35.00	-GENE3429 -GENE3428 -GENE3430 -GENE3430 -GENE3430 -GENE3430 -GENE3430 -GENE3430 -GENE3430 -GENE3430 -GENE3438 -GENE348 -GE
GENE3594 8 GENE3485 8 GENE3595 8 GENE3486 8	5739504.00 HSH11 5739504.00 HSA11 5829552.00 HSA11 5887096.00 HSA11	HAENES HAENES HAENES HAENES HAENES	13535 - 2544 13536 - 2573 3432 - 258	6.00 73.00 34.00	-GENE13535 -GENE13535 -GENE13536 -GENE3536 -GENE3532 -GENE3532
GENE3596 8 GENE13599 8 GENE3598 8 GENE3598 8	6369584.00 HSA11 6381816.00 HSA11 7534176.00 HSA11 7747446 00 HSA11		13537 - 258 3325 - 259 3328 - 260 3436 - 260	87.00 95.00 97.00	-GENE13537 -GENE9325 -GENE9328 -GENE9328 -GENE93436 -GENE93436
GENE3597 8 GENE3597 8 GENE9490 8 GENE13558 8	8287880.00 HSH11 8287880.00 HSA11 8705576.00 HSA11 9291792.00 HSA11	HAENES HAENES HAENES HAENES HAENES	263 13543 - 264 3329 - 264 3437 - 265	4.00 7.00 57.00	-GENE13543 - CFH21 GENE13549 45429624.00 -GENE3329 - GENE3357 - CFR21 GENE13551 46609016.00 CFR21 GENE13551 46609016.00 CFR21 GENE3341 48141404.00
GENE9491 8 GENE3601 9 GENE13601 9: GENE9402	9573504.00 HSA11 11440736.00 HSA11 12218928.00 HSA11 12277464 AA HSA11		13544 - 2660 13173 - 267: 3438 - 267: 13172 - 207	66.00 73.00 76.00	-GENE13544 -GENE13173 -GENE3438 -GENE13172 -GENE13172 -GENE13172 -GENE13172 -GENE13172 -GENE3438 -GENE13172 -GENE3448 -GENE348 -GEN
GENE9493 9: GENE9494 9: GENE3605 9: GENE9496 9:	22587080.00 HSA11 3103864.00 HSA11 3153272.00 HSA11	HAENED HAENED HAENED HAENED	13545 - 268 13546 - 268 13548 - 269	36.00 39.00 38.00	-GENE13545 -GENE13546 -GENE13546 -GENE13548
GENE3606 9: GENE3607 9: GENE13602 9: GENE13602 9:	3232888.00 HSA11 3488072.00 HSA11 3496056.00 HSA11 3532216 AA HSA11	HGENE3	13547 - 270 3444 - 271 80-P12 274 13549 - 275	09.00 19.00 14.00	-GENE13547 -GENE3544 BAC_380-P12 -GENE13549 -GENE13549 -GENE13549 -GENE13549 -GENE13549 -GENE13549 -GENE13549 -GENE3452 -
GENE13192 9: GENE3608 9: GENE9499 9: GENE3602 9:	35552216.00 HSA11 3601216.00 HSA11 3799208.00 HSA11 4002736.00 HSA11	-GENED -GENED -GENED -GENED -GENED -GENED	13550 - 2760 13550 - 2774 13551 - 2780 17-J8 2813	79.00 36.00 18.00	-GENE13550 -GENE13550 -GENE13551 BAC_417-J8 -GENE13551 -GENE13504 -GENE1350 -GENE
GENE9500 9 GENE3610 9 GENE9501 9 GENE9501 9	4037728.00 HSA11 4215216.00 HSA11 4390976.00 HSA11		341 - 282: 3448 - 283 12872 - 285 3449 - 285	22.00 37.00 58.00	-GENE9341 -GENE3448 -GENE12872 -GENE12872 -GENE3449 -GENE3449 -GENE3449
GENE3612 95 GENE3612 95 GENE3609 95 GENE9503 95	519/112.00 HSA11 5252296.00 HSA11 5734864.00 HSA11 5805888.00 HSA11	-GENE3 -GENE3 -GENE3 -GENE3	288 3450 - 291 3344 - 292 3451 - 294	10.00 25.00 5.00	-GENE3450 -GENE9344 -GENE3451
			13175 - 2950 3495 - 2999 13552 - 3029	56.00 94.00 25.00	- GENE13175
		HERES BRC_37 HERES HEERES	74-A7 304: 3397 - 305: 3504 - 307:	3.00 59.00 72.00	BAC_374-A7 -GENE9397 -GENE3504
			3399 - 309 3398 - 310 3505 - 311 3396 - 311	07.00 07.00 10.00 17.00	- GENE9399 - - GENE9398 - - GENE3505 - - GENE9396 -
		Genes	3503 - 312	21.00	- GENE3503

RH MAP CFA22

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SENE10559 SENE8786	69558656.00 H	45A16 45A09	-GENE9979 /-GENE9978	2	.00	- GENE9979		CFR05 CFR22	GENE10559 GENE4093	3039867.00
GENE13222	55679064.00 H	ISA12	//_GENE4093	- 9	.00	-GENE4093		CFA22	GENE9979	3127868.00
GENE4062	39315028.00 H	ISA13	////GENE1269	8-2	1.00	- GENE 12698		CFR22	GENE9978	3214166.00
SENE9949	39454784.00 H	45A13	GENE4090	5 2	8.00 8.00	BHC_381-D	·	CFR22 CFR22	GENE12698 CENE4.09.0	3483388.00
GENE4063	39624532.00 H	ISA13	/// /_GENE1269	7 - 5	0.00	-GENE12697		CFA22	GENE9976	3814216.00
GENE9950	39700284.00 H	ISA13	GENE9976	- 54	4.00	- GENE9976		CFA22	GENE12697	3861094.00
SENE10636	40187908.00 H	15H13 15A13	GENELOSS	9 - 2 7	5.00	-GENE10559		CFR22	GENE9975	4702757.00
SENE9952	40538496.00 H	ISA13		- 71	9.00	-GENE9975		CFA22	GENE4088	4764148.00
SENE12692	40669032.00 H	ISA13	GENE9972	81	9.00 6.00	-GENE9972		CFA22	GENE9974 CENE4.087	4855971.00
SENE9954	41152680.00 H	ISA13	GENESSIS	- 1	01.00	-GENE4087		CFR22	GENE9973	5058106.00
GENE4068	41265600.00 H	ISA13		- 1	.03.00	-GENE9974		CFA22	GENE4086	5058106.00
GENE9955 SENE4069	41450512.00 H	45813 45813	-GENE4088	1	.16.00 36.00	- GENE4088		CFR22 CFR22	GENE9972 CENE4.085	5129030.00
GENE9956	42260768.00 H	ISA13	-GENE4084	- 1	56.00	-GENE4084		CFA22	GENE4084	5368774.00
SENE4080	42599140.00 H	ISA13	ALLING ACCOUNTS AND ALLING	- 1	59.00	- GENE4 085		CFA22	GENE9969	5830807.00
SENE4070 SENE12693	42751472.00 H	45813 45813	-GENE 9969	1	73.00	- GENE4082		CFH22 CFH22	GENE9082 GENE9968	5956339.00
SENE9958	43405188.00 H	ISA13	GENE9968	- 1	80.00	-GENE9968		CFA22	GENE4081	6166827.00
SENE4073	43711856.00 H	ISA13	GENE4081	- 1'	93.00	-GENE4081		CFA22	GENE9967	6302173.00
SENE9961	43958116.00 H	ISA13	GENE 99067	2	10.00	-GENE9967		CFA22	GENE12695	6302173.00
GENE4075	44085160.00 H	ISA13	-GENE4080	- 2	15.00	-GENE4080		CFA22	GENE9966	6380942.00
SENE9962	44347860.00 H	ISA13	-GENE 1269	5 - 2:	20.00	- GENE12695		CFA22	GENE8786	6601681.00
SENE9963	44520256.00 H	ISA13	GENE 9300	- 2	44.00	-GENE4079		CFA22	GENE9965	7474220.00
SENE4088	44577020.00 H	ISA13	GENE8786	- 24	47.00	-GENE8786		CFR22	GENE4078	7835137.00
GENE4077 GENE4078	44598752.00 H	45813 45813	GENE4077	- 20	60.00 67.00	-GENE4078		CFR22 CFR22	GENE4077 GENE9963	7884727.00 7976333.00
SENE9965	45123188.00 H	ISA13		- 23	80.00	-GENE9963		CFA22	GENE4076	8098482.00
GENE4079	45263568.00 H	ISA13	GENE4076	- 23	83.00	-GENE4076		CFA22	GENE9962	8098482.00
SENE9966	46326260.00 H	15H13 15A13	-GENE 9962 -GENE 9961	- 2	93.00	-GENE9961		CFR22	GENE9961	8446740.00
GENE12695	46409768.00 H	ISA13	-GENE4075	- 2'	96.00	-GENE4075		CFA22	GENE9960	8564963.00
GENE9967	46453416.00 H	45813 45813	-GENE4073 GENE9960	- 3	21.00	-GENE4073 -GENE9960		CFR22 CFR22	GENE4073 GENE9958	8619008.00 8971284.00
SENE9968	46783872.00 H	ISA13	-GENE9958	- 3	34.00	-GENE9958		CFA22	GENE4071	8971284.00
SENE4082	46893808.00 H	ISA13	GENE4071	33	37.00 45.00	- GENE4 071		CFR22	GENE12693	9340515.00
SENE4084	47639492.00 H	ISA13	GENE1269:	3 - 3	60.00	-GENE12693		CFR22	GENE9956	9928290.00
GENE4085	47848456.00 H	ISA13	GENE9956	- 3	81.00	-GENE9956		CFA22	GENE4069	10408520.00
SENE9972	47905484.00 H	15A13	GENEGOSE	3	09.00 92.00	- GENE4 069 - GENE9955		CFA22 CEA22	GENE9955 GENEA068	10601822.00
GENE9973	48032656.00 H	ISA13	GENE \$500	- 3'	95.00	-GENE4068		CFA22	GENE9954	11049003.00
SENE4087	48103896.00 H	ISA13	//////////////////////////////////////	- 4	00.00	- GENE9954		CFA22	GENE4067	11195042.00
SENE9974	40202116.00 H	15H13 15A13	GENE 1269	2 - 4	13.00	- GENE 4 067		CFR22 CFR22	GENE 12692 GENE 9952	11414689.00 11538103.00
SENE12697	49328400.00 H	ISA13	////// -GENE9952	- 4	18.00	-GENE9952		CFA22	GENE10636	11857742.00
SENE9976	49387648.00 H	ISA13		6 - 4 :	26.00	- GENE10636		CFA22	GENE9951	11999021.00
GENE4090 GENE12698	49623600.00 H	15H13 15A13	GENE 9951	- 4	44.00	-GENE4063		CFR22	GENE9950 GENE4063	12200576.00
GENE9978	50162976.00 H	ISA13	//	- 4	46.00	-GENE9950		CFA22	GENE9949	12454583.00
SENE9979 SENE4093	50321344.00 H	45813 45813	V VGENE9949	4	57.00 62.00	- GENE9949 - GENE4062		CFR22 CFR22	GENE4062 GENE9982	12599977.00
SENE9982	51074776.00 H	ISA13	GENE4096	- 41	66.00	-GENE4096		CFA22	GENE4096	12760016.00
SENE4096	51215672.00 H	ISA13		- 4	74.00	-GENE9982		CFA22	GENE9983	12976830.00
SENE9900	58287080.00 H	ISA13	BAC_381-C	18 5	13.00	BAC_381-C:	18	CFA22	GENE9985	20085218.00
SENE9985	59781536.00 H	ISA13	BAC_381-J	20 5:	20.00	BAC_381-J2	20	CFA22	GENE13222	26657024.00
GENE4099 GENE4100	68073584.00 H	15A13 15A13	DHC_305-K	/ 5	77.00	- GENE9984		CFR22 CFR22	GENE4099 GENE4100	27150900.00 28639308.00
SENE9987	71080448.00 H	ISA13		- 51	94.00	- GENE9985		CFA22	GENE9987	29776412.00
GENE4101 GENE4102	71106392.00 H	ISA13 ISA13	BHC_373-K GENE 13222	17 63 2 - 63	37.00 88.00	- GENE 13222	1/	CFR22 CFR22	GENE4101 GENE4102	29972504.00 30814796.00
GENE4109	72464528.00 H	ISA13		- 61	94.00	-GENE4099		CFA22	GENE9989	31277650.00
SENE9989	72603696.00 H	ISA13 ISA13		- 73	'32.00 '76.00	-GENE4100 -GENE4101		CFA22 CFA22	GENE4103 GENE4104	31277650.00
GENE4104	73902152.00 H	ISA13		- 7	79.00	-GENE9987		CFR22	GENE9992	32330632.00
SENE9992	74004184.00 H	ISA13		- 73	'89.00 :05.00	-GENE4102		CFA22	GENE4105 CENE4107	32562866.00
GENE9993	75325336.00 H	ISA13		- 8	17.00	-GENE4103		CFA22	GENE9994	33633760.00
GENE4107	75393544.00 H	ISA13		- 8	46.00	- GENE9992		CFA22	GENE9993	33633760.00
GENE4108	76014784.00 H	ISA13		- 8	51.00	-GENE4105		CFA22	GENE4100 GENE4109	34289440.00
GENE4110	77010312.00 H	ISA13		- 8	81.00	-GENE4107		CFA22	GENE4110	34999680.00
GENE4111	77923024.00 H	45813 45813	GENE9994	- 8	84.00 87.00	- GENE9994		CFR22 CFR22	GENE4111 CENEGGGG	35679088.00
SENE4113	92818528.00 H	ISA13		- 9	03.00	-GENE4108		CFA22	GENE4113	48311008.00
SENE4114	92975944.00 H	ISA13	GENE4109	- 9	109.00	-GENE4109		CFA22	GENE4114	48427392.00
GENE4115	93511232.00 H	ISA13		- 9!	54.00	-GENE4111		CFA22	GENE10002	48774460.00
GENE4116	93783680.00 H	ISA13	GENE9999	- 1	023.00	-GENE9999		CFA22	GENE4116	49052296.00
GENE10003	93883584.00 H 93980224.00 H	45813 45813	BAC_375-1 BAC_382-E	1 1	087.00	BAC_375-15		CFH22 CFH22	GENE10003 GENE4117	49143448.00
GENE10004	94140960.00 H	ISA13	GENE4114	- 1	106.00	-GENE4114		CFA22	GENE10004	49365540.00
GENE4118 GENE10005	94348808.00 H	45813 45813	GENE4113 GENE4117	1	118.00	-GENE4113 -GENE4117		CFR22 CFR22	GENE4118 GENE10005	49543652.00
GENE4119	95715088.00 H	ISA13		- 1:	203.00	-GENE4116		CFA22	GENE4119	50660368.00
SENE4120	96739760.00 H	ISA13	GENE4115	3	233.00 247.00	-GENE4115 -GENE10002		CFR22	GENE4120 GENE10701	51473168.00
SENE4121	96929944.00 H	ISA13	GENE 1000	2 - 1:	250.00	-GENE10002		CFR22	GENE4121	51674976.00
SENE12702	97157656.00 H	ISA13	GENE1000	4 - 1:	256.00	-GENE10004		CFA22	GENE 127 02	51858336.00
SENE4122 SENE4124	97247432.00 H 97644896.00 H	15H13 15A13	-GENE4118 	5 - 1	202.00	-GENE4118 -GENE10005		CFR22 CFR22	GENE4122 GENE4124	51996368.00 52321484.00
GENE4123	97717888.00 H	ISA13	GENE4119	- 1:	283.00	-GENE4119		CFR22	GENE4123	52321484.00
SENE4132 SENE4125	98083520.00 H 98258104 00 H	15813 15813	GENE4120 GENE4121		200.00	-GENE4120 -GENE4121		CFA22 CEA22	GENE6 GENE4125	52528832.00 52764676.00
GENE4126	98718608.00 H	ISA13	GENE 1270	1 - 1:	292.00	-GENE12701		CFA22	GENE4126	53314624.00
GENE4127	98962400.00 H	ISA13	GENE 1270	2 - 1:	307.00	- GENE12702		CFR22	GENE4127	53473452.00
SENE4128	99432600.00 H	ISA13	GENE4122 GENE4124	- 1	319.00	-GENE4122		CFR22	GENE4128	53669204.00
SENE10015	99927832.00 H	ISA13	GENE6	1	322.00	- GENE6		CFA22	GENE4129	54305752.00
SENE10016	1000/0896.00H	ISH13	GENE4123 GENE4126	- 1	347.00	-GENE4123		CFR22 CFR22	GENE10015 GENE10016	54305752.00 54732456.00
SENE4130	100999136.00	ISA13	GENE4127	- 1	363.00	-GENE4127	/////	CFA22	GENE4130	55128064.00
SENE10019 SENE4133	104844184.00H	15813 15813	GENE4125 GENE 1001	4 - 1:	369.00	-GENE4125 -GENE10014		CFR22 CFR22	GENE4132 GENE10019	55404864.00 58531612.00
SENE4134	106657032.00 H	ISA13	GENE4128	- 1	375.00	-GENE4128		CFA22	GENE4133	58573620.00
GENE10021	107402160.00 H	15A13	GENE1001	6 – 1: - 1:	392.00 404.00	-GENE10016 -GENE4129	////	CFR22 CFR22	GENE4134 GENE10021	59855756.00 60495200 00
GENE4136	108774928.00 H	ISA13	GENETIDO	5 - 1	411.00	-GENE10015		CFA22	GENE10022	61268012.00
SENE4137	108992616.00	ISA13	GENE4130	1	420.00	- GENE4130	/////	CFA22	GENE4136 GENE4127	61606424.00
SENE4138	109228760.00 H	ISA13	BAC_381-J	2 📕 1	441.00	BAC_381-J2		CFR22	GENE10024	61779880.00
GENE4139	109593976.00H	ISA13	GENE1001	9 - 1	482.00	-GENE10019	/////	CFR22	GENE4138	61891420.00
SENE10026	110946224.00H	ISA13	GENE4133 GENE4134	- 1	525.00	-GENE4133	/////	CFR22	GENE10026	62122144.00
GENE4140	111000080.00H	ISA13	GENE1002	1 - 1	530.00	-GENE10021	/////	CFA22	GENE4140	62935728.00
SENE 10027	111149936.00H	ISA13	GENE 1002	- 1	539.00	-GENE10022		CFH22 CFR22	GENE10027 GENE4141	62935728.00 63242704.00
SENE10028	111698664.00 H	ISA13	GENE4137	- 1	542.00	-GENE4137	/////	CFA22	GENE10028	63398800.00
SENE4142	111751224.00H	15813 15813	GENE1002	- 1	557.00	- GENE10024 - GENE4138		CFA22 CFA22	GENE4142 GENE10029	63398800.00 63517384.00
GENE4143	111927976.00	ISA13	GENE4139	- 1	563.00	-GENE4139		CFA22	GENE4143	63517384.00
GENE10030	112086144.00H	ISA13	GENE1002	6 - 1	565.00 568.00	- GENE10026		CFR22	GENE10030	63632644.00
SENE4144	112097072.00H	ISA13	GENETITO	7 - 19	577.00	-GENE10027	/////	CFR22	GENE4145	63961496.00
SENE6	1665026.00 H	ISA01	GENE1002	8 - 1	591.00	-GENE10028		CFA22	GENE4146	64107452.00
			GENE4142 GENE1002	9 - 1	606.00	-GENE4142 -GENE10029				
			GENE4141	- 1	609.00	-GENE4141				
			GENE4143 GENE1003	0 - 10	626.00	-GENE4143 -GENE10030				
			-GENE4144	- 1	629.00	-GENE4144				
				- 1	648.00	- GENE4145 - GENE4146				
			GLIETITO							

GENE11291 GENE5407	23853154.00 HSA20 24640756.00 HSA20	GENE5407 - GENE11291 -	0.00 44.00	- GENE5407	CFA23 CFA23	GENE11291 GENE5407	3026510.00 3838379.00
GENE5408 GENE5409	24982454.00 HSA20 25124372.00 HSA20		70.00 79.00	- GENE 11295	CFA23 (CFA23 (GENE5408 GENE5409	4192531.00 4397048.00
GENE5410 GENE11294 GENE5411	25223380.00 HSH20 25246996.00 HSA20 25381332.00 HSA20	GENE5400	97.00 113.00 125.00	-GENES408	CFA23 (CFA23 (CFA23)	GENE11295 GENE11294 GENE5410	4516961.00 4516961.00 4516961.00
GENE11295 GENE8242	25392396.00 HSA20 5807092.00 HSA07	GENE5411 - GENE7016 -	137.00 155.00	-GENE5411	CFA23 (CFA23 (GENE5411 GENE7016	4663617.00 4990370.00
GENE6972 GENE6973	15267207.00 HSA03 15486492.00 HSA03	- GENE12196 - 	162.00 177.00	- GENE12196	CFA23 (CFA23 (GENE1113 GENE12196	5048721.00 5568572.00
GENE1071 GENE6974	15590918.00 HSA03 15660792.00 HSA03		184.00 187.00	-GENE6993	CFA23 CFA23	GENE1112 GENE12195	5834772.00 5946099.00
GENE1072 GENE6975	15710065.00 HSA03 16191053.00 HSA03	GENE6991 - GENE8242 - GENE1089 -	191.00 196.00 201.00	-GENE6991	CFA23 (CFA23 (GENE6993 GENE12186	6352560.00 6533013.00
GENE0976 GENE12179 GENE1074	16552047.00 HSH03 16499199.00 HSA03 16568180.00 HSA03	-GENE1009 - -GENE1090 - -GENE1112 -	204.00	-GENE1009	CFA23 (CFA23 (GENE1090 GENE8242 GENE1089	6533013.00 6623858.00 6727936.00
GENE6977 GENE6979	17030870.00 HSA03 19895814.00 HSA03	-GENE1113 - -GENE1093 -	262.00 355.00	-GENE1113	CFA23 (CFA23 (GENE6991 GENE1093	6772081.00 9631117.00
GENE1077 GENE6980	20190170.00 HSA03 21526460.00 HSA03	-GENE1094 - -GENE6996 -	373.00 392.00	-GENE1094	CFA23 (CFA23 (GENE6996 GENE1094	9737967.00 9901113.00
GENE6981 GENE1079	23909128.00 HSA03 24204946.00 HSA03	-GENE12189 - -GENE6997 -	397.00 405.00	-GENE12189	CFA23 CFA23	GENE12189 GENE6998	9901113.00 10603057.00
GENE1080 GENE6982	25507518.00 HSA03 25609692.00 HSA03	-GENE7000 - -GENE6999 - -CENE6999	424.00 426.00 424.00	-GENE7000	CFA23 (CFA23 (GENE1096 GENE6999	10713528.00 10899892.00
GENE12100 GENE1082 GENE12184	26909540.00 HSA03 28355736.00 HSA03	-GENEL0996 - -GENEL096 - -GENEL097 -	440.00	-GENE1096	CFA23 (CFA23 (GENE1097 GENE1099	11061734.00 11061734.00 11259051.00
GENE6986 GENE6987	28540304.00 HSA03 30660728.00 HSA03	-GENE1099 - -GENE1102 -	447.00 453.00	-GENE1099	CFA23 (CFA23 (GENE7001 GENE7003	11259051.00 11504789.00
GENE1085 GENE1086	30877448.00 HSA03 31673598.00 HSA03	-GENE1103 - -GENE1100 -	464.00 472.00	-GENE1103	CFA23 CFA23	GENE1100 GENE1102	11708632.00 12012988.00
GENE12185 GENE1088	32153426.00 HSA03 32539168.00 HSA03	-GENE1104 - GENE7006 -	485.00 490.00	-GENE1104	CFA23 (CFA23 (GENE1103 GENE7006	12012988.00 12754845.00
GENE1090 GENE6991	32618556.00 HSA03 33036122.00 HSA03	-GENE7003 - -GENE7001 - -GENE7009	495.00	-GENE7003	CFA23 (CFA23 (GENE1104 GENE7008	12902135.00 13950834.00
GENE1009 GENE12186 CENE6993	33421610.00 HSA03	GENETODO	534.00	-GENE7008	CFA23 (GENETIOS GENETIOS GENETIOS	1414/996.00 14486749.00 14726944 00
GENE1094 GENE6997	36306896.00 HSA03 36366064.00 HSA03	-GENE7010 - -GENE7010 - -GENE7011 -	557.00	-GENE7010	CFA23 (GENE12193 GENE7011	14788663.00
GENE1093 GENE6996	36716352.00 HSA03 36834208.00 HSA03	-GENE7012 - -GENE12193 -	568.00 573.00	-GENE7012	CFA23 CFA23	GENE7012 GENE1110	14946886.00 14946886.00
GENE12189 GENE6998	37016368.00 HSA03 37820680.00 HSA03	-GENE1110 - -GENE12194 -	587.00 590.00	- GENE1110	CFA23 (CFA23 (GENE12194 GENE1088	15095672.00 15216959.00
GENE1096 GENE1100	37968576.00 HSA03 38052332.00 HSA03	GENE1088 - GENE12185 - GENE12185 -	593.00 598.00	- GENE1088	CFA23 (CFA23 (GENE12185 GENE1086	15594525.00 16066032.00
GENE69999 GENE1097 GENE7000	38118464.00 HSH03 38256736.00 HSA03 38320252 00 HSA03	GENE1006 - GENE1005 - GENE1085 - GENE6987 -	688.00 688.00	- GENE 1006	CFA23 (GENE1085 GENE6987 CENE6986	16859636.00 16859636.00 18770590.00
GENE7000 GENE7001 GENE1099	38479288.00 HSA03 38508704.00 HSA03	BAC_373-E5 GENE6986	712.00	BAC_373-E5	CFA23	GENE12184 GENE1082	18993136.00
GENE7003 GENE1102	38881640.00 HSA03 39393488.00 HSA03	- GENE12184 - - GENE12184 -	733.00 741.00	-GENE12184	CFA23 CFA23	GENE1080 GENE12180	21122148.00 21122148.00
GENE1103 GENE1104	39527724.00 HSA03 39656960.00 HSA03	-GENE1080 - -GENE12180 -	757.00 762.00	-GENE1080	CFA23 (CFA23 (GENE6982 GENE1079	21300716.00 22696034.00
GENE7006 GENE1106	40191836.00 HSA03 41152656.00 HSA03		774.00 808.00	-GENE6982	CFA23 (CFA23 (GENE6981 GENE6980	22888612.00 25044532.00
GENE7008 GENE7009	41683124.00 HSA03 42398824.00 HSA03		811.00 846.00 866.00	- GENE1079	CFA23 (CFA23 (GENE1077 GENE6979	26144714.00 26481992.00
GENE7010 GENE12193 GENE7011	42553720.00 HSH03 42641108.00 HSA03 42699280 00 HSA03		875.00	-GENE1077	CFA23 (CFA23 (GENE1074 GENE1074 GENE6976	28918112.00 29232892.00 29437448 00
GENE7012 GENE1110	42866924.00 HSA03 42938276.00 HSA03	BAC_382-K14 BAC_381-J13	907.00 916.00	BAC_382-K14 BAC_381-J13	CFA23 (CFA23 (GENE12179 GENE6975	29437448.00 29757148.00
GENE12194 GENE12195	43057480.00 HSA03 43341964.00 HSA03		922.00 925.00	-GENE1074	CFA23 CFA23	GENE1072 GENE6974	30042208.00 30090400.00
GENE1112 GENE12196	43433760.00 HSA03 43712148.00 HSA03		931.00 937.00	-GENE6975	CFA23 (CFA23 (GENE6973 GENE1071	30219900.00 30219900.00
GENE1113 GENE7016	44244760.00 HSA03 44369112.00 HSA03	GENE6972 -	953.00 963.00	-GENE6972 -GENE6974	CFA23 (CFA23 (GENE6972 GENE7175	30404840.00 30867820.00
GENE1272 GENE7175 GENE1074	130773464.00 HSH03 131769168.00 HSA03 131838938 00 HSA03		972.00	-GENE1071	CFA23 (GENE1272 GENE7176 GENE1074	30867820.00 31463520.00 31548972.00
GENE7176 GENE7177	132208408.00 HSA03 132208408.00 HSA03		998.00 1001.00	-GENE7175	CFA23	GENE7177 GENE12244	31653600.00 32173984.00
GENE1277 GENE12244	133021872.00 HSA03 133077136.00 HSA03		1008.00 1011.00	-GENE1274	CFA23 CFA23	GENE7180 GENE7179	32613710.00 32613710.00
GENE7179 GENE7180	133541792.00 HSA03 133640080.00 HSA03		1017.00 1035.00	- GENE7176	CFA23 (CFA23 (GENE12245 GENE1277	32613710.00 32613710.00
GENE12245 GENE7181	133728304.00 HSA03 134085576.00 HSA03	GENE7180 - GENE7179 -	1046.00	-GENE7180	CFA23 (CFA23 (GENE7181 GENE1279	33027090.00 33316812.00
GENE1279 GENE1280 GENE1282	134439200.00 HSH03 134816352.00 HSA03 134860336_00 HSA03		1073.00	-GENE12245	CFA23 (CFA23 (GENE1280 GENE1281 GENE7184	33752288.00 33879640.00 33899980.00
GENE1281 GENE7184	134984496.00 HSA03 135251184.00 HSA03		1096.00 1103.00	-GENE1279	CFA23 (CFA23 (GENE1282 GENE7185	34202568.00 34342016.00
GENE7185 GENE7186	135521696.00 HSA03 136241280.00 HSA03		1106.00 1110.00	-GENE1281	CFA23 CFA23	GENE7186 GENE1284	34896508.00 35576480.00
GENE1285 GENE1284	136720192.00 HSA03 137117280.00 HSA03		1117.00 1128.00	-GENE1282	CFA23 CFA23	GENE1285 GENE7188	35947984.00 35947984.00
GENE7188 GENE7189	137560128.00 HSA03 137987936.00 HSA03	BHC_381-D7 	1131.00 1134.00 1157.00	BHC_381-07 -GENE7185 	CFA23 (CFA23 (GENE7190 GENE7189	36416004.00 36416004.00
GENE/190 GENE1289 GENE1290	1392034688.00 HSA03 139203408.00 HSA03 139441408.00 HSA03	BAC_375-N7 GENE1285	1163.00	BAC_375-N7 - GENE1285	CFA23 (CFA23 (GENE1209 GENE1290 GENE1291	37296264.00 37660668.00 37843808.00
GENE1291 GENE1292	139693184.00 HSA03 140144416.00 HSA03		1181.00 1191.00	-GENE7190	CFA23 CFA23	GENE1292 GENE7195	38358176.00 38631312.00
GENE7195 GENE1293	140493888.00 HSA03 140617488.00 HSA03		1198.00 1215.00	-GENE7188	CFA23 (CFA23 (GENE1293 GENE7196	38769020.00 39667580.00
GENE7196 GENE1294	141544256.00 HSA03 141595360.00 HSA03		1218.00 1224.00	-GENE1289	CFA23 CFA23	GENE1294 GENE7197	39667580.00 39790724.00
GENE7197 GENE1295	141722192.00 HSR03 142015472.00 HSR03		1238.00	-GENE1293	CFA23 (CFA23 (GENE1295 GENE1296 CENE1297	40009240.00 40296360.00 40496240.00
GENE1297 GENE1296 GENE7200	142034720.00 HSA03 142333600.00 HSA03 142817440.00 HSA03		1263.00 1266.00	-GENE7197	CFA23 (GENE7200 GENE7201	40685420.00
GENE7201 GENE1301	142999344.00 HSA03 143171136.00 HSA03		1272.00 1278.00	-GENE1294 -GENE1295	CFA23 CFA23	GENE7202 GENE1300	41102660.00 41152708.00
GENE7202 GENE1300	143372080.00 HSA03 143462096.00 HSA03		1287.00 1290.00	-GENE1296	CFA23 CFA23	GENE1301 GENE7205	41417788.00 41570548.00
GENE7206 GENE1304	144689664.00 HSA03 145029264.00 HSA03		1293.00 1303.00 1316.00	-GENE7200	CFA23 (CFA23 (GENE7206 GENE1304	42359544.00 42773120.00
GENE1305 GENE7208	146646368.00 HSA03 147238144.00 HSA03		1327.00	-GENE1300	CFA23 CFA23 CFA23	GENE1305 GENE7208	44359528.00 44359528.00
GENE7209 GENE1307	147562832.00 HSA03 148447328.00 HSA03	GENE7205 - GENE1304 -	1333.00 1340.00	-GENE7205	CFA23 CFA23	GENE7209 GENE1307	44612844.00 45560248.00
GENE1308 GENE7211	149468032.00 HSA03 150034944.00 HSA03		1343.00 1347.00	- GENE7206	CFA23 CFA23	GENE1308 GENE7211	46756496.00 46894584.00
GENE7212 GENE1310 GENE7240	150200576.00 HSA03 150362624.00 HSA03	GENE1305 - GENE7208 -	1364.00 1367.00 1380.00	-GENE7208	CFA23 (CFA23 (CFA23)	GENE7212 GENE1310 GENE7040	47042848.00 47042848.00
GENE7213 GENE7214 GENE1312	150555600.00 HSH03 150809120.00 HSA03 151002240.00 HSA03	GENE 1308	1404.00	-GENE1307	CFA23 (GENE7213 GENE7214 GENE1312	47305304.00 47540612.00 47708112.00
GENE1314 GENE1313	151423120.00 HSA03 151582624.00 HSA03		1429.00 1438.00	-GENE7211 BAC_385-I11	CFA23 CFA23	GENE1313 GENE2881	48107300.00 48339728.00
GENE2881 GENE7216	151666304.00 HSA03 151716784.00 HSA03	GENE7212 - GENE1310 -	1447.00 1450.00	-GENE7212 -GENE1310	CFA23 (CFA23 (GENE7216 GENE1314	48339728.00 48490148.00
GENE7217 GENE7218	152010144.00 HSA03 152160704.00 HSA03		1462.00 1475.00	-GENE7213	CFA23 CFA23	GENE7217 GENE7218	48631088.00 48784624.00
GENE7219 GENE1317 GENE7222	152319168.00 HSA03 152409632.00 HSA03 152772564 40 HSA03	GENE1312 - GENE1313 - GENE2334	1487.00 1495.00	-GENE1312 -GENE1313 -GENE2881	CFR23	GENE7219 GENE1317 GENE1319	48943080.00 48943080.00 49280124 00
GENE7220 GENE1318 GENE7221	152772360.00 HSH03 152822272.00 HSA03 152921296.00 HSA03	GENE7216 - GENE7217 -	1507.00	-GENE7216 -GENE7217	CFA23 0	GENE7220 GENE7221	49280124.00 49280124.00 49625192.00
GENE1319 GENE7222	153338832.00 HSA03 153875472.00 HSA03	GENE7218 - GENE7219 -	1518.00 1523.00	-GENE7218 -GENE7219	CFA23 CFA23	GENE 1319 GENE 7222	50045160.00 50309056.00
GENE1320 GENE7223	154203200.00 HSA03 154523296.00 HSA03	GENE1314 - GENE1317 -	1532.00 1568.00	-GENE1314 -GENE1317	CFA23 CFA23	GENE1320 GENE7223	50827952.00 50827952.00
GENE1321 GENE12256	154682960.00 HSA03 155191088.00 HSA03	GENE7590 - GENE1318 -	1653.00 1685.00	-GENE/590 -GENE1318 -GENE7220	CFR23 (CFR23 (GENE12256 GENE1321	51400180.00 51400180.00
GENE / 224 GENE 12257 GENE 1325	155514272.00 HSA03 156592224.00 HSA03 156683664 00 HSA03	GENE 7220 - GENE 7220 - GENE 7221 - ECT22811	1691.00	-GENE7221 EST22B11	CFH23 CFR23 CFR23	GENE / 224 GENE 12257 GENE 1325	51637364.00 52325932.00 52799688 00
GENE7228 GENE7229	157500800.00 HSA03 157741664.00 HSA03	GENE1319 - GENE1319 - GENE7222 -	1702.00 1711.00	-GENE1319 -GENE7222	CFR23 CFR23	GENE7228 GENE7229	53085960.00 53379880.00
GENE1327 GENE12259	157812704.00 HSA03 158303488.00 HSA03	GENE1320 - GENE7223 -	1726.00 1737.00	-GENE1320 -GENE7223	CFA23 CFA23	GENE 1327 GENE 12259	53698028.00 53839596.00
GENE7230 GENE7231	158480528.00 HSA03 159138160.00 HSA03		1753.00 1761.00	-GENE7224 -GENE12256	CFR23 CFR23	GENE7230 GENE7231	54036164.00 54557916.00
GENE1329 GENE7232	159575504.00 HSA03 159643664.00 HSA03		1764.00 1787.00 1802.00	-GENE 1321 -GENE 12257 -GENE 1325	CFR23 (CFR23 (GENE1329 GENE7232	54940348.00 54991512.00
GENE 7233 GENE 1389 GENE 7205	194820112.00 HSA03 89272312.00 HSA03		1805.00	-GENE7228 -GENE7229	CFA23 (CFA23 (CFA16 (GENE 1389 GENE 759.0	55308304.00 46042228.00
GENE7590	187766128.00 HSA04		1825.00 1831.00	-GENE1327 -GENE7230			
		-GENE12259 - -GENE7231 -	1839.00 1865.00	- GENE12259 - GENE7231			
		-GENE7233 - GENE1329 -	1867.00 1870.00 1872.00	-GENE/233 -GENE1329 -GENE7232			
		-GENE /232 - -GENE 1389 -	1879.00	-GENE1389			

GENE5355 411734.00 HSA19 GENE11245 63029096.00 HSA19 GENE1443 16200278.00 HSA04	-GENE11289 - -GENE11290 - 	0.00 29.00 44.00	- GENE11289	CFA24 GENE11290 CFA24 GENE11289 CFA24 GENE13408	3267036.00 3962677.00 4744831.00
GENE11237 117846.00 HSA20 GENE5353 204854.00 HSA20 GENE11238 251879.00 HSA20	-GENE11287 - -GENE5402 - -/-GENE11285 -	49.00 51.00 54.00	- GENE11287	CFA24 GENE11287 CFA24 GENE5402 CFA24 GENE11285	5152838.00 5936926.00 6262341.00
GENE5354 304186.00 HSA20 GENE12839 474588.00 HSA20 GENE12839 57558.00 HSA20	-GENE11284 - -GENE5398 - -GENE11283 -	59.00 71.00 80.00	- GENE11284	CFA24 GENE11284 CFA24 GENE5398 CF024 CENE11282	6588239.00 7470307.00 7470307.00
GENE5356 575259.00 HSH20 GENE11240 579467.00 HSA20 GENE5357 767941.00 HSA20	-GENE11203 - -GENE1133 - -GENE11281 -	95.00 116.00	-GENE11203	CFA24 GENE11283 CFA24 GENE11281 CFA24 GENE1133	7470307.00 7786102.00 7897511.00
GENE11242 849520.00 HSA20 GENE11243 1110143.00 HSA20 GENE5361 1438989.00 HSA20	-GENE11279 - -GENE5393 - -GENE5395 -	140.00 145.00 158.00	- GENE11279	CFA24 GENE5396 CFA24 GENE11279 CFA24 GENE5395	7897511.00 8126019.00 8126019.00
GENE11246 1527315.00 HSA20 GENE5362 1579475.00 HSA20 GENE5362 195422 00 HSA20	-GENE5396 - -GENE5394 - -GENE11278 -	175.00 198.00 233.00	- GENE5396	CFA24 GENE5394 CFA24 GENE11278 CF024 CENE5292	8126019.00 8267524.00
GENE11247 1954303.00 HSH20 GENE5363 2092268.00 HSA20 GENE13405 2303398.00 HSA20		245.00 298.00	-GENE11276	CFA24 GENE5393 CFA24 GENE11277 CFA24 GENE5392	0360090.00 8421720.00 8580993.00
GENE5364 2378963.00 HSA20 GENE5365 2465253.00 HSA20 GENE11250 2634482.00 HSA20	-GENE5392 - -GENE11275 - -GENE5391 -	329.00 344.00 364.00	- GENE5392	CFA24 GENE11276 CFA24 GENE11275 CFA24 GENE5391	8715596.00 9151021.00 9151021.00
GENE5366 2734042.00 HSA20 GENE11251 2813485.00 HSA20	BAC_373-I12 -GENE11274 -	372.00 439.00	BAC_373-I12 - GENE11274	CFA24 GENE11274 CFA24 GENE5389	10502902.00 11018791.00
GENE5367 3021916.00 HSH20 GENE11252 3142047.00 HSA20 GENE11253 3299228.00 HSA20	-GENE13309 - -GENE11273 - -GENE11272 -	465.00 473.00	- GENE 11273	CFA24 GENE11273 CFA24 GENE11272 CFA24 GENE11271	11018791.00 11693939.00 11835868.00
GENE5369 3624415.00 HSA20 GENE11254 3671904.00 HSA20 GENE5370 3706151.00 HSA20	-GENE11271 - -GENE5387 - -GENE5385 -	484.00 494.00 516.00	- GENE11271	CFA24 GENE5387 CFA24 GENE11270 CFA24 GENE5385	11835868.00 12334157.00 12576609.00
GENE12841 3724924.00 HSA20 GENE11255 3833130.00 HSA20	ESTIG4 GENE11270 -	525.00 533.00	EST1G4 - GENE11270	CFA24 GENE5384 CFA24 GENE5383	13471436.00 14600644.00
GENE5371 3907569.00 HSH20 GENE5372 4077508.00 HSA20 GENE13406 4158109.00 HSA20	BAC_382-I20 BAC_381-I13	579.00 585.00	BAC_382-I20 BAC_381-I13	CFA24 GENE5362 CFA24 GENE13407 CFA24 GENE5381	14945239.00 15169300.00 15169300.00
GENE11258 4860670.00 HSA20 GENE5374 5075403.00 HSA20 GENE11259 5161319.00 HSA20	BAC_381-L15 GENE5383 - GENE5382 -	593.00 608.00 627.00	BAC_381-L15 - GENE5383	CFA24 GENE5378 CFA24 GENE11262 CFA24 GENE5377	18816172.00 18914086.00 18914086.00
GENE13839 5446331.00 HSA20 GENE5376 5561801.00 HSA20	GENE13407 - GENE5381 - GENE5381 -	639.00 658.00 735.00	-GENE13407	CFA24 GENE5376 CFA24 GENE13839	19208668.00 19319892.00
GENE5377 5090054.00 HSH20 GENE11262 5932349.00 HSA20 GENE5378 6012392.00 HSA20	GENE5376 - GENE11262 - GENE5377 -	760.00	-GENE11262	CFA24 GENE11259 CFA24 GENE5374 CFA24 GENE11258	19426340.00 19513736.00 19672172.00
GENE5381 10030041.00 HSA20 GENE13407 10281271.00 HSA20 GENE5382 10384135.00 HSA20	GENE 13839 - GENE 5376 - GENE 5376 - GENE 11252 -	794.00 820.00 844.00	- GENE13839	CFA24 GENE5372 CFA24 GENE13406 CFA24 GENE5371	20336386.00 20336386.00 20460414.00
GENE5383 10566334.00 HSA20 GENE5384 11895033.00 HSA20	GENE5366 - GENE11254 - GENE11255 -	855.00 881.00 914.00	-GENE5366	CFA24 GENE11255 CFA24 GENE5370	20533912.00 20582572.00
GENE5385 13089713.00 HSH20 GENE11270 13274543.00 HSA20 GENE11271 13762021.00 HSA20		928.00 934.00	-GENE112851 -GENE12841 -GENE5370	CFA24 GENE12841 CFA24 GENE11254 CFA24 GENE5369	20620376.00 20724884.00 20724884.00
GENE5387 13841993.00 HSA20 GENE11272 13977640.00 HSA20 GENE11273 14596949.00 HSA20		940.00 946.00 958.00	- GENE5372 - GENE134.06 - GENE11258	CFA24 GENE11253 CFA24 GENE11252 CFA24 GENE5367	21046108.00 21165840.00 21282960.00
GENE5389 14660337.00 HSA20 GENE11274 15206201.00 HSA20	GENE11259 - GENE5374 - GENE5374 -	967.00 973.00	-GENE11259 -GENE5374 -GENE5021	CFA24 GENE11251 CFA24 GENE5366	21455740.00 21488368.00
GENE11275 16715915.00 HSH20 GENE5391 16723359.00 HSA20 GENE11276 17202874.00 HSA20	GENE5371 - GENE5369 - GENE11253 -	1003.00 1011.00	-GENESS/1	CFH24 GENES365 CFA24 GENE11250 CFA24 GENE5364	21610242.00 21610242.00 21814232.00
GENE5392 17469272.00 HSA20 GENE11277 17582584.00 HSA20 GENE5393 17635302.00 HSA20	BAC_374-023 -GENE5367 - -GENE5365 -	1024.00 1033.00 1045.00	BAC_374-023 -GENE5367 -GENE5365	CFA24 GENE13405 CFA24 GENE11247 CFA24 GENE5363	21814232.00 22054328.00 22054328.00
GENE11278 17700544.00 HSA20 GENE5394 17917458.00 HSA20	GENE11250 - GENE11251 - GENE11251 -	1056.00 1069.00	-GENE11250	CFA24 GENE5362 CFA24 GENE11246	22302764.00 22443456.00
GENE11279 17945428.00 HSH20 GENE5395 18000302.00 HSA20 GENE5396 18273558.00 HSA20	GENE5364 - GENE11247 - GENE113405 -	1081.00 1087.00 1103.00	-GENE3364	CFH24 GENE5361 CFA24 GENE11245 CFA24 GENE11243	22516960.00 22620036.00 22755752.00
GENE1133 18289784.00 HSA20 GENE11281 18365168.00 HSA20 GENE5398 18516602.00 HSA20	-GENE5363 - -GENE5362 - -GENE11245 -	1117.00 1132.00 1148.00	- GENE5363	CFA24 GENE5357 CFA24 GENE11242 CFA24 GENE5356	23009664.00 23009664.00 23162416.00
GENE11283 18766384.00 HSA20 GENE11284 19732692.00 HSA20	-GENE5361 - -GENE11246 - 	1170.00 1188.00	-GENE5361	CFA24 GENE11240 CFA24 GENE5355	23192942.00 23291992.00
GENE11285 20000356.00 HSH20 GENE5402 20320856.00 HSA20 GENE11287 21190726.00 HSA20	GENE11243 - GENE5355 - GENE5356 -	1225.00 1248.00 1260.00	-GENE11245	CFH24 GENE12839 CFA24 GENE5354 CFA24 GENE11237	23291992.00 23425704.00 23553444.00
GENE13408 21690352.00 HSA20 GENE11289 22652084.00 HSA20 GENE11290 23339812.00 HSA20	GENE11237 - GENE11238 - GENE5417 -	1266.00 1294.00 1332.00	-GENE11237	CFA24 GENE11238 CFA24 GENE5353 CFA24 GENE11298	23553444.00 23553444.00 23943082.00
GENE5418 30613468.00 HSA20 GENE11298 30809234.00 HSA20	GENE5418 - GENE5419 -	1348.00 1374.00	-GENE5418	CFA24 GENE11300 CFA24 GENE5415	24145240.00 24257540.00
GENE11300 31155074.00 HSH20 GENE5415 31180278.00 HSA20 GENE5422 31524020.00 HSA20	GENE 12839 - GENE 12839 - GENE 11304 -	1411.00 1430.00 1448.00	-GENE12839 -GENE12839 -GENE11304	CFH24 GENES417 CFA24 GENE11303 CFA24 GENE5418	24526524.00 24543828.00 24629900.00
GENE5417 31525108.00 HSA20 GENE11303 31549412.00 HSA20 GENE11304 31762060.00 HSA20	GENE11303 - GENE11306 - GENE5353 -	1463.00 1478.00 1490.00	-GENE11303 -GENE11306 -GENE5353	CFA24 GENE5419 CFA24 GENE11304 CFA24 GENE5420	24699414.00 24699414.00 25081924.00
GENE5419 31775708.00 HSA20 GENE5424 31868816.00 HSA20	GENE5354 - GENE5357 - GENE11040	1496.00 1502.00	-GENE5354 -GENE5357 -GENE11040	CFA24 GENE11306 CFA24 GENE11307	25081924.00 25238836.00
GENE5420 32095048.00 HSA20 GENE11306 32199488.00 HSA20 GENE11307 32373992.00 HSA20		1504.00 1507.00 1513.00	-GENE11242 - -GENE11240 - -GENE11298 -	CFA24 GENE5422 CFA24 GENE11308 CFA24 GENE5423	25344856.00 25489928.00 25489928.00
GENE11308 32586504.00 HSA20 GENE5423 32662024.00 HSA20 GENE11309 32715726.00 HSA20		1523.00 1544.00 1569.00	-GENE5415 -GENE11300 -GENE5424	CFA24 GENE11309 CFA24 GENE5424 CFA24 GENE11311	25574436.00 25734600.00 25829424.00
GENE11311 32980576.00 HSA20 GENE5426 33069980.00 HSA20	GENE 11309 - GENE 11307 -	1579.00 1595.00	-GENE11309	CFA24 GENE5426 CFA24 GENE11312	25889512.00 25953752.00
GENE11312 33154292.00 HSA20 GENE5432 33284140.00 HSA20 GENE11313 33566068.00 HSA20	GENE5422 - GENE11308 - GENE11312 -	1608.00 1617.00 1622.00	-GENE5422	CFR24 GENE11313 CFR24 GENE1443 CFR24 GENE5429	26201068.00 26367920.00 26626200.00
GENE5429 33863156.00 HSA20 GENE5430 34007108.00 HSA20 GENE11316 34043656.00 HSA20		1628.00 1640.00 1654.00	-GENE11311	CFA24 GENE5430 CFA24 GENE11316 CFA24 GENE5432	26736392.00 26736392.00 26922630.00
GENE11318 34324252.00 HSA20 GENE5433 34437856.00 HSA20		1682.00 1690.00	-GENE5432 -GENE5429 -GENE5429	CFA24 GENE11318 CFA24 GENE5433	27046392.00 27046392.00
GENE5438 34480120.00 HSH20 GENE5439 34683872.00 HSA20 GENE5436 34859220.00 HSA20	GENE3430 - GENE11316 - GENE1443 -	1715.00 1718.00	-GENE0430	CFH24 GENE5436 CFA24 GENE11322 CFA24 GENE11324	27430380.00 27430380.00 27986328.00
GENE11322 349666660.00 HSA20 GENE11324 35548272.00 HSA20 GENE5444 35700500.00 HSA20		1721.00 1730.00 1762.00	-GENE11313	CFA24 GENE5438 CFA24 GENE5439 CFA24 GENE11325	27986328.00 28103968.00 28219496.00
GENE11325 35862816.00 HSA20 GENE11326 36107336.00 HSA20	GENE5436 - GENE11322 - BOC 291-12	1789.00 1818.00	-GENE5436	CFA24 GENE11326 CFA24 GENE11327	28491604.00 28599990.00
GENE11327 36230420.00 HSH20 GENE5443 36542828.00 HSA20 GENE5449 36805504.00 HSA20	GENE11324 - GENE11324 - GENE5439 -	1845.00 1857.00	-GENE11324	CFH24 GENE5443 CFA24 GENE5444 CFA24 GENE5446	28810390.00 28945680.00 29493204.00
GENE5446 37309984.00 HSA20 GENE11333 37605052.00 HSA20 GENE5448 37677828.00 HSA20	GENE5438 - GENE11325 - BAC 375-K22	1869.00 1888.00 1901.00	-GENE5438 -GENE11325 BAC 375-K22	CFA24 GENE5448 CFA24 GENE11333 CFA24 GENE5449	29733236.00 29733236.00 29866200.00
GENE5450 38042772.00 HSA20 GENE11336 38085328.00 HSA20	GENE 11326 - GENE 11327 - GENE 11327 -	1904.00 1910.00	-GENE11326 -GENE11327 -GENE5444	CFA24 GENE5450 CFA24 GENE11336	30095876.00 30095876.00
GENE5451 38234016.00 HSH20 GENE11337 38338276.00 HSA20 GENE11338 40393424.00 HSA20		1929.00 1944.00 1962.00	-GENES449	CFH24 GENE5451 CFA24 GENE11337 CFA24 GENE11338	30187572.00 30306868.00 32064822.00
GENE5453 40517696.00 HSA20 GENE5454 40765008.00 HSA20 GENE11340 41300276.00 HSA20		1976.00 1981.00 1994.00	-GENE5450	CFA24 GENE5453 CFA24 GENE5454 CFA24 GENE11340	32176188.00 32399894.00 33038864.00
GENE5455 42092416.00 HSA20 GENE5456 42881240.00 HSA20	GENE 11336 - GENE 11337 -	1997.00 2003.00	-GENE11336	CFA24 GENE5455 CFA24 GENE5456	33616124.00 34220836.00
GENE11342 43023532.00 HSA20 GENE5457 43138688.00 HSA20 GENE11343 43382688.00 HSA20	GENE 11333 - GENE 11333 - GENE5446 - GENE5455 -	2013.00 2016.00 2059.00	-GENE11333 - -GENE5446 -GENE5455	CFR24 GENE11342 CFR24 GENE5457 CFR24 GENE5458	34304292.00 34367424.00 34570400.00
GENE5458 43426216.00 HSA20 GENE11344 43509732.00 HSA20 GENE5459 43620420.00 HSA20	BAC_416-F2 GENE11340 - GENE11338 -	2074.00 2093.00 2099.00	BAC_416-F2 -GENE11340 -GENE11338	CFA24 GENE11343 CFA24 GENE11344 CFA24 GENE5459	34570400.00 34685548.00 34737184.00
GENE5460 43738064.00 HSA20 GENE11346 43813292.00 HSA20		2112.00 2119.00	- GENE5453 - GENE5454 - GENE5454	CFA24 GENE5460 CFA24 GENE11346	34796204.00 34880680.00
GENE11348 44200412.00 HSA20 GENE5463 44252656.00 HSA20 GENE11349 44313592.00 HSA20		2160.00 2177.00 2193.00	-GENES456 - -GENES457 - -GENES458 -	CFR24 GENE5463 CFR24 GENE11348 CFR24 GENE5464	35274788.00 35274788.00 35380980.00
GENE5464 44423880.00 HSA20 GENE11350 44490440.00 HSA20 GENE5465 44566444.00 HSA20		2205.00 2211.00 2216.00	-GENE5460	CFA24 GENE11349 CFA24 GENE11350 CFA24 GENE5465	35380980.00 35380980.00 35566340.00
GENE5472 44683108.00 HSA20 GENE11352 44795468.00 HSA20	GENE 11342 - GENE 11344 - GENE 11344 -	2219.00 2227.00	-GENE11342 -GENE11344	CFA24 GENE11352 CFA24 GENE5467	35711892.00 35759528.00
GENE5467 44860780.00 HSH20 GENE13411 44923572.00 HSA20 GENE5474 45001424.00 HSA20		2248.00 2265.00 2273.00	-GENE11346 - -GENE5463 - -GENE5471 -	CFH24 GENE13411 CFA24 GENE5468 CFA24 GENE5469	35862368.00 35996216.00 35996216.00
GENE5468 45018572.00 HSA20 GENE5469 45154708.00 HSA20 GENE11355 45196544.00 HSA20	GENE5464 - GENE13412 - GENE13411 -	2282.00 2288.00 2297.00	- GENE5464 - GENE13412 - GENE13411	CFA24 GENE11355 CFA24 GENE5470 CFA24 GENE5471	36136768.00 36136768.00 36300740.00
GENE5470 45327688.00 HSA20 GENE13412 45384264.00 HSA20	GENE11352 - GENE5468 - GENE5468 -	2306.00 2329.00 2361.00	-GENE11352 -GENE5468 -CENE5468	CFA24 GENE13412 CFA24 GENE11357	36300740.00 36300740.00
GENE11357 45496392.00 HSA20 GENE11358 45769964.00 HSA20	GENE3469 - GENE11348 - GENE11349 -	2408.00 2417.00	-GENE11348 -GENE11349 -GENE1349	CFA24 GENE11358 CFA24 GENE5474	36671276.00 36788204.00
GENE5476 45819088.00 HSA20 GENE12842 45963500.00 HSA20 GENE11360 46039488.00 HSA20	GENE5467 - GENE11355 - GENE11357 -	2438.00 2449.00 2459.00	-GENE5467 -GENE11355 -GENE11357	CFA24 GENE12842 CFA24 GENE11360 CFA24 GENE12843	36788204.00 36890204.00 37290216.00
GENE12843 46560088.00 HSA20 GENE11361 46633224.00 HSA20 GENE12844 46953172.00 HSA20	GENE11350 - GENE5470 - GENE5465	2476.00 2479.00 2482.00	-GENE11350 -GENE5470 -GENE5465	CFA24 GENE11361 CFA24 GENE5476 CFA24 GENE12844	37290216.00 37598712.00 37598712.00
GENE11362 47050432.00 HSA20 GENE5483 48386084.00 HSA20 GENE13412 48546084.00 HSA20	GENE5472 - GENE11358 -	2488.00 2494.00 2511.00	- GENE5472 - GENE11358 - GENE11350	CFA24 GENE11362 CFA24 GENE13413 CFR24 GENE13413	37725272.00 38830268.00
GENE11365 48590936.00 HSA20 GENE5480 48666232.00 HSA20		2529.00 2548.00	-GENE5474 -GENE12842	CFA24 GENE5480 CFA24 GENE5481	38922800.00 39154244.00
GENE5481 48934468.00 HSA20 GENE11367 49152072.00 HSA20 GENE11368 49289724.00 HSA20		2588.00 2627.00 2650.00	- GENE5476 - GENE13413 - GENE12843	CFA24 GENE11367 CFA24 GENE11368 CFA24 GENE5483	39359320.00 39423444.00 39514972.00
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GENE11370 49937856.00 HSA20 GENE5485 50131808.00 HSA20		2680.00 2686.00	-GENE11365 -GENE5480	CFA24 GENE5485 CFA24 GENE5487	40091364.00 40744140.00
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GENE11376 53459116.00 HSA20 GENE5491 53893156.00 HSA20 GENE11377 54724296.00 HSA20		2710.00 2720.00 2730.00	-GENE5481	CFA24 GENE11376 CFA24 GENE5491 CFA24 GENE11377	42761644.00 43173120.00 43932980.00
GENE5492 55258360.00 HSA20 GENE5495 55369168.00 HSA20		2744.00 2747.00	-GENE5487 -GENE5485	CFA24 GENE5492 CFA24 GENE11378	44277248.00 44434960.00
GENE5493 55509260.00 HSA20 GENE5493 55663944.00 HSA20 GENE5497 55760596.00 HSA20	GENE5484 - GENE11370 - GENE11373 -	2760.00 2767.00	-GENE11370 -GENE11373	CFH24 GENE5493 CFA24 GENE5494 CFA24 GENE5495	++306060.00 44586060.00 45104384.00
GENE5494 55796544.00 HSA20 GENE13416 56434860.00 HSA20 GENE5496 56591356.00 HSA20	GENE 13087 - GENE 13087 - GENE 13087 - GENE 11375 -	2805.00 2821.00 2834.00	-GENE13087 -GENE5489 -GENE11375	CFA24 GENE13416 CFA24 GENE5496 CFA24 GENE11382	45104384.00 45296296.00 45296296.00
GENE11382 56638308.00 HSA20 GENE11383 56822992.00 HSA20 GENE11384 57420040 A0 HSA20	GENE 11376 - GENE 5491 -	2877.00 2888.00 2903.00	-GENE11376 -GENE5491 -GENE11377	CFA24 GENE5497 CFA24 GENE11383 CFA24 GENE11383	45399304.00 45476368.00 45821088.00
GENE5499 57498160.00 HSA20 GENE11385 57614388.00 HSA20		2912.00 2918.00	-GENE5493 -GENE5494 -GENE5494	CFA24 GENE5499 CFA24 GENE11385	45988028.00 46088232.00
GENE5505 58127368.00 HSA20 GENE5502 58297620.00 HSA20 GENE5503 58453744.00 HSA20	GENE5492 - GENE5496 - GENE11385 -	2930.00 2952.00 2995.00	-GENE5496 -GENE51385	CFH24 GENE5502 CFA24 GENE5503 CFA24 GENE11389	46897066.00 46897064.00 46897064.00
GENE11389 58585972.00 HSA20 GENE11390 59033416.00 HSA20 GENE5506 59244665 A0 HSA20	GENE11378 - BAC_381-N17	3010.00 3052.00 3057.00	-GENE11378 BAC_381-N17 -GENE5495	CFA24 GENE11388 CFA24 GENE11390 CFA24 GENESE 05	46897064.00 47329004.00 47427804.00
GENE11392 59329984.00 HSA20 GENE11393 60515128.00 HSA20	GENE3495 - GENE13416 - GENE11382 -	3060.00 3071.00	-GENE13416 -GENE11382 -CENE11382	CFA24 GENE5506 CFA24 GENE11392	47502936.00 47651400.00
GENE11394 60980200.00 HSA20 GENE11396 61439856.00 HSA20 GENE11397 61598416.00 HSA20	GENE11383 - GENE11384 - GENE5499 -	3082.00 3093.00	-GENE11384 -GENE5499	CFH24 GENE5507 CFA24 GENE11393 CFA24 GENE11394	+//24600.00 48579104.00 48918488.00
GENE5512 61733832.00 HSA20 GENE5519 62208684.00 HSA20 GENE5515 62268304.00 HSA20	GENE5497 - GENE5502 - GENE5503 -	3101.00 3128.00 3138.00	-GENE5497 -GENE5502 -GENE5503	CFA24 GENE11396 CFA24 GENE11397 CFA24 GENE5512	49211652.00 49343716.00 49445804.00
GENE11404 63018596.00 HSA20 GENE12847 63285944.00 HSA20 GENE12406 63285944.00 HSA20	GENE11389 - GENE5507 -	3141.00 3157.00 3168.00	-GENE11389 -GENE5507 -GENE11390	CFA24 GENE5515 CFA24 GENE11404 CFR24 GENE11404	49735208.00 50258124.00
GENE11407 63518888.00 HSA20 GENE11407 63518888.00 HSA20 GENE13087 57095476.00 HSA06		3170.00 3176.00	-GENE5505 -GENE11392	CFA24 GENES519 CFA24 GENE12847 CFA24 GENE11406	50416092.00 50460280.00
GENE5507 58401908.00 HSA16 GENE11388 44248248.00 HSA07	GENE5506 - GENE11388 - GENE5519	3185.00 3196.00 3218.00	-GENES506 -GENE11388 -GENE5519	CFA24 <u>GENE11407</u> CFA12 GENE13087	50646720.00 27442404.00
	GENE 11393 - GENE 11397 -	3257.00 3273.00 3282.00	-GENE11393 -GENE11397 -GENE11394		
	-GENE11394 - GENE11396 - GENE5515 -	3285.00 3287.00	-GENE11396 -GENE5515		
	GENE11404 - GENE11406 - GENE11407 -	3304.00 3322.00 3327.00	- GENE 114 04		
	GENE 12847 - GENE 5512 -	3333.00 3344.00	- GENE12847 - GENE5512		

GENE4024 16225875.00 HSA13 GENE4025 17409512.00 HSA13 GENE4025 17409512.00 HSA13 GENE12699 GENE12699	- 0.00	- GENE4061	CFA25 GENE4094 CFA25 GENE12699	3075614.00 3122726.00
GENE12864 18033622.00 HSH13 GENE4018 18398224.00 HSA13 GENE9906 18514864.00 HSA13	- 6.00 - 9.00	-GENE4095	CFA25 GENE9095 CFA25 GENE9081 CFA25 GENE4061	3171451.00 3171451.00 3429249.00
GENE9907 18786536.00 HSA13 GENE9948 GENE9948 GENE9948 GENE9948 GENE9947 GENE9947 GENE9947	- 11.00 - 36.00 47.00	- GENE9948	CFA25 GENE9948 CFA25 GENE9947	3520554.00 4403297.00
GENE9909 19344796.00 HSR13 4000000000000000000000000000000000000	- 47.00	- GENE4059	CFA25 GENE4059 CFA25 GENE4058 CFA25 CENE12690	5030305.00 5189080.00 5607963 00
GENE9911 19864944.00 HSA13 GENE12685 19975420.00 HSA13	- 64.00 - 82.00	-GENE4057	CFA25 GENE4057 CFA25 GENE9944	5607963.00 6023025.00
GENE9912 20245084.00 HSA13 GENE4034 21623424.00 HSA13 GENE9942	- 92.00 - 110.00	- GENE4056	CFA25 GENE4056 CFA25 GENE9942	6023025.00 6661410.00
GENE4026 21700946.00 HSR13 GENE9915 22102062.00 HSR13 GENE12686 22676216.00 HSR13 GENE12686 22676216.00 HSR13	- 112.00	- GENE4 054	CFA25 GENE4055 CFA25 GENE4054 CFA25 GENE9941	6661410.00 6755169.00 6908900.00
GENE4029 22942308.00 HSA13 GENE9917 23062680.00 HSA13 GENE9017 23062680.00 HSA13	142.00	EST2F3	CFA25 GENE4053 CFA25 GENE4052	7074667.00 7290321.00
GENE4030 23170926.00 HSR13 GENE4039 23254216.00 HSR13 GENE4039 23254216.00 HSR13	- 170.00 - 178.00	- GENE4052	CFA25 GENE9939 CFA25 GENE4051	7606672.00 7606672.00
GENE9919 23713228.00 HSA13 GENE4032 23901844.00 HSA13 GENE9920 24211000 00 HSA13 GENE9920 24211000 00 HSA13	- 189.00 - 217.00 - 226.00	- GENE4051	CFA25 GENE9938 CFA25 GENE4050 CFA25 GENE9937	7606672.00 8153398.00 9466466 00
GENE9920 24211000.00 HSH13 GENE4033 24772568.00 HSH13 GENE9921 25036472.00 HSH13 GENE9935	252.00	-GENE9937	CFA25 GENE9937 CFA25 GENE9936 CFA25 GENE4048	10103989.00
GENE9922 25644570.00 HSA13 GENE4035 25812092.00 HSA13 GENE9936	- 294.00 - 304.00	-GENE4048	CFA25 GENE9935 CFA25 GENE4047	10629607.00 10727829.00
GENE9923 25938664.00 HSA13 GENE4036 25994448.00 HSA13 GENE4036 25994448.00 HSA13 GENE9035 26424552 00 HSA13	- 322.00 - 326.00 - 335.00	- GENE12689	CFA25 GENE12689 CFA25 GENE9933 CFO25 CENE4045	10870615.00 11060148.00
GENE 9925 26671408.00 HSA13 GENE 9926 26671408.00 HSA13 GENE 9926 26671408.00 HSA13	- 345.00 - 351.00	-GENE4045	CFA25 GENE4044 CFA25 GENE4043	11763905.00
GENE12688 27396452.00 HSA13 GENE9930 GENE9927 27874620.00 HSA13 GENE9927	- 355.00 - 358.00	-GENE9930	CFA25 GENE9930 CFA25 GENE9929	12286286.00 12554545.00
GENE4040 28135736.00 HSA13 GENE9928 28322200.00 HSA13 GENE4041 28678296 00 HS013 GENE4041	- 371.00 - 377.00 - 383.00	- GENE4040	CFA25 GENE4041 CFA25 GENE9928 CF025 CENE4040	12679847.00 12988291.00
GENE9929 28831854.00 HSA13 GENE9930 29135568.00 HSA13 GENE9930 29135568.00 HSA13	390.00	-GENE9929	CFA25 GENE9927 CFA25 GENE12688	13349303.00
GENE4043 29297618.00 HSR13 GENE4044 29702216.00 HSR13 GENE4039	412.00	- GENE12688	CFA25 GENE4039 CFA25 GENE9926	14018628.00 14407406.00
GENE4045 30315976.00 HSA13 GENE9933 30450580.00 HSA13 GENE4038	475.00	- GENE9926	CFA25 GENE4038 CFA25 GENE9925	14407406.00 14627255.00
GENE12869 30659346.00 HSH13 GENE4047 30774588.00 HSH13 GENE9935 30889006.00 HSH13 GENE9935 30889006.00 HSH13	- 503.00 - 511.00	- GENE 3920	CFH25 GENE1287 CFA25 GENE4036 CFA25 GENE9923	15001443.00 15001443.00 15001443.00
GENE4048 31142204.00 HSR13 GENE9936 31433612.00 HSR13 GENE4035	518.00 540.00	- GENE9923	CFA25 GENE4035 CFA25 GENE9922	15163261.00 15296662.00
GENE9937 32189270.00 HSA13 GENE4057 32910468.00 HSA13 GENE4057 32910468.00 HSA13 GENE4050 2266040.00 HSA13	- 546.00 - 556.00	- GENE9922	CFA25 GENE4034 CFA25 GENE9921	15491518.00 15808859.00
GENE9938 34017312.00 HSR13 GENE9938 34017312.00 HSR13 GENE4051 34246056.00 HSR13	- 591.00	-GENE9921	CFH25 GENE4033 CFA25 GENE9920 CFA25 GENE4032	16691197.00
GENE9939 34541108.00 HSA13 GENE4052 34602904.00 HSA13	- 637.00 - 643.00	-GENE9919	CFA25 GENE9919 CFA25 GENE12686	17097464.00 17677834.00
GENE4053 34809184.00 HSA13 GENE9941 35066820.00 HSA13 GENE9941 35066820.00 HSA13	- 649.00 - 661.00	- GENE4032	CFA25 GENE9915 CFA25 GENE4026	17967484.00 18278978.00
GENE4054 35243768.00 HSH13 GENE4061 35350116.00 HSH13 GENE4061 353566776.00 HSH13 GENE4025	- 680.00	-GENE 9915	CFH25 GENE4025 CFA25 GENE9912 CFA25 GENE4024	18656096.00 19555884.00 19555884.00
GENE4055 35416180.00 HSA13 GENE4056 35969148.00 HSA13	716.00	-GENE9906 -GENE4018	CFA25 GENE12685 CFA25 GENE9911	19713744.00 19840464.00
GENE9944 36117848.00 HSA13 GENE12690 36730224.00 HSA13 GENE12690 36730224.00 HSA13	- 732.00 - 738.00 - 744.00	-GENE4019 -GENE4029	CFA25 GENE4023 CFA25 GENE9910	19912480.00 20013652.00
GENE4059 37394392.00 HSA13 GENE4059 37394392.00 HSA13 GENE9947 38065644.00 HSA13	- 744.00	-GENE12684 -GENE4030	CFA25 GENE9909 CFA25 GENE9909 CFA25 GENE9907	20227992.00 20227992.00 20691066.00
GENE9948 39101364.00 HSR13 GENE4094 46694220.00 HSR13	756.00	-GENE9917 -GENE9912	CFA25 GENE4019 CFA25 GENE9906	20922120.00 21099648.00
GENE4095 46981656.00 HSR13 GENE12699 50520448.00 HSR13 GENE981 50759944 00 HSR13 GENE981 50759944 00 HSR13	798.00 806.00	-GENE9911 -GENE4024 -GENE4021	CFA25 GENE4018 CFA25 GENE4029 CFA25 CENE4029	21099648.00 21318976.00
GENE1287 137938400.00 HSH13 GENE1287 137938400.00 HSA03 GENE4017 14187816.00 HSA12	812.00 818.00 824.00	-GENE9907 -GENE9909	CFH25 GENE12684 CFA25 GENE4017 CFA25 GFNF4030	21362048.00 21448128.00 21652436.00
GENE4019 14741609.00 HSA12 GENE2889 15007175.00 HSA09	836.00 847.00	-GENE4023 -GENE9910	CFA25 GENE9917 CFA25 GENE7566	21755580.00 22146612.00
GENE7566 170048768.00 HSA04 GENE12685 GENE12685 GENE12666 170520304.00 HSA04 GENE7566	851.00 885.00	- GENE12685	CFA25 GENE1666 CFA25 GENE7567 CF025 CENE7567	22588570.00 22588570.00
GENE 1667 170523520.00 HSR 04 GENE 1666 GENE 1666 GENE 1666 FCT 1446 FCT 1446	917.00 932.00 934.00	-GENE1666	CFH25 GENE1667 CFA25 GENE1668 CFA25 GENE2889	22995108.00 23578182.00 23578182.00
GENE 1668 171329408.00 HSA04GENE 1668GENE 1668GENE 1668	943.00	-GENE7567	CFA25 GENE7568 CFA25 GENE7569	23578182.00
GENE1669 173846272.00 HSA04 GENE7570 174429904.00 HSA04 GENE7568	- 967.00 - 970.00	-GENE2889	CFA25 GENE1669 CFA25 GENE7570	25766252.00 26592086.00
GENE13018 174568448.00 HSA04 GENE7569 GENE1670 174938448.00 HSA04 GENE1667 GENE1669 GENE1669	- 980.00 - 990.00 - 1030.00	-GENE7569	CFA25 GENE13018 CFA25 GENE1670 CFA25 CENE7571	26592086.00 27008992.00 27008992.00
GENE1671 175152376.00 HSA04GENE12359 GENE1672 175743008.00 HSA04GENE7572	- 1098.00 - 1123.00	-GENE12359	CFA25 GENE1671 CFA25 GENE13020	27313752.00
GENE13020 175858032.00 HSA04 GENE1672 GENE7572 175879504.00 HSA04 GENE7573	- 1130.00 - 1133.00	-GENE1672	CFA25 GENE12359 CFA25 GENE7572	27900796.00 27900796.00
GENE12359 175920624.00 HSA04 GENE13020 GENE7573 176109728.00 HSA04 GENE7570 GENE12031 176375553 00 HSA04 GENE1670	- 1142.00 - 1159.00 - 1172.00	-GENE13020 -GENE7570 -GENE1670	CFA25 GENE1672 CFA25 GENE7573 CFA25 CENE12021	27900796.00 27900796.00 28176782.00
GENE13021 1702735322.00 HSH04 GENE2539 10323678.00 HSA08 GENE13120 10592472.00 HSA08	- 1181.00 - 1205.00	-GENE7571 -GENE13018	CFA25 GENE2648 CFA25 GENE2647	29171292.00 29388336.00
GENE8542 11021387.00 HSA08 GENE2645 11089214.00 HSA08 GENE1671	- 1214.00 1- 1238.00	-GENE1671	CFA25 GENE8545 CFA25 GENE8544	29388336.00 29503968.00
GENE2646 11189746.00 HSA08GENE2646GENE2646GENE2646GENE2646GENE2646GENE2645GENE2645	- 1261.00 - 1291.00 - 1298.00	-GENE2646	CFA25 GENE2646 CFA25 GENE8543 CFA25 GENE8542	29586472.00 29586472.00 29808156.00
GENE2647 11448784.00 HSA08GENE8543GENE8545 11473327.00 HSA08GENE2647	- 1301.00 - 1311.00	-GENE8543	CFA25 GENE2645 CFA25 GENE13120	29808156.00 30273480.00
GENE2648 11652895.00 HSA08 GENE8545 GENE8557 19820908.00 HSA08 GENE8544	- 1317.00 - 1327.00	-GENE8545	CFA25 GENE8539 CFA25 GENE2685	30658670.00 31717488.00
GENE26558 20120224.00 HSA08 GENE2648 GENE2661 20841936.00 HSA08 GENE2661 20841936.00 HSA08 GENE26539 GENE13120	- 1344.00 - 1358.00 1367.00	- GENE2648	CFA25 GENE12586 CFA25 GENE2684 CFA25 CENE2684	31717488.00 31717488.00
GENE2662 21559262.00 HSH06 -GENE2685 GENE2663 21790084.00 HSA08 -GENE2685 GENE2663 21866546.00 HSA08 -GENE12586	- 1386.00 - 1395.00	-GENE10120	CFH25 GENE0501 CFA25 GENE8580 CFA25 GENE2682	32380612.00 32655166.00
GENE2664 22016430.00 HSA08 GENE2664 22090912.00 HSA08 GENE2684 GENE2684	- 1398.00 - 1415.00	-GENE2684	CFA25 GENE8578 CFA25 GENE8577	32914750.00 33067540.00
GENE2665 22127100.00 HSA08 GENE8563 22231698.00 HSA08 GENE8563 22231698.00 HSA08	- 1428.00 22 1431.00 1445.00	-GENE8580 BAC_380-H22 GENE8577	CFA25 GENE2680 CFA25 GENE2679 CF025 CENE12122	33067540.00 33240836.00
GENE2666 22295050.00 HSH08 GENE8564 22417564.00 HSH08 GENE2667 22481490.00 HSH08 GENE2667 22481490.00 HSH08	- 1445.00 - 1452.00 - 1462.00	-GENE0577	CFH25 GENE13123 CFA25 GENE8576 CFA25 GENE2678	33240836.00 33240836.00 33541260.00
GENE13122 22592602.00 HSA08 GENE2668 22924854.00 HSA08 GENE13123	- 1473.00 - 1484.00	-GENE8578	CFA25 GENE2677 CFA25 GENE8574	34099756.00 34256536.00
GENE2669 23140356.00 HSA08 GENE8568 23315674.00 HSA08 GENE8568 23315674.00 HSA08	- 1499.00 - 1515.00 1532.00	-GENE2680	CFA25 GENE2676 CFA25 GENE2675	34642628.00 34902548.00
GENE26569 23560512.00 HSH06 GENE2672 24209386.00 HSA08 GENE8570 24284814.00 HSA08 GENE8574	- 1567.00	-GENE2602	CFH25 GENE8572 CFA25 GENE2674 CFA25 GENE8571	35119152.00 35119152.00 35806152.00
GENE2673 24369512.00 HSA08 GENE2676 GENE8571 24833382.00 HSA08 GENE2675	- 1597.00 - 1624.00	-GENE2676 -GENE2675	CFA25 GENE8570 CFA25 GENE2673	35806152.00 35806152.00
GENE2674 25220964.00 HSA08 GENE2667 GENE8572 25302550.00 HSA08 GENE8572 CENE8572 CENE8572	- 1656.00 - 1668.00 1699.00	-GENE2667 -GENE8572	CFA25 GENE2672 CFA25 GENE8569	35806152.00
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GENE2677 26387056.00 HSA08 GENE2673 GENE2678 27116164.00 HSA08 BAC_376-05	- 1762.00 5 1775.00	-GENE2673 BAC_376-05	CFA25 GENE13122 CFA25 GENE2667	37578056.00 37699384.00
GENE8576 27166652.00 HSA08 GENE13123 27299216.00 HSA08 GENE2665	- 1814.00 - 1847.00	-GENE8569	CFA25 GENE8564 CFA25 GENE2666	37788128.00 37939744.00
GENE2680 27484344.00 HSA08 GENE2680 27550264.00 HSA08 GENE26878 27550264.00 HSA08	- 1862.00 - 1872.00	-GENE2663 -GENE2668	CFA25 GENE2665 CFA25 GENE2665 CFA25 GENE8562	38029160.00 38080456.00
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GENE8580 27991944.00 HSA08 GENE8581 28406368.00 HSA08 GENE2666	2 - 1894.00 - 1897.00	-GENE13122 -GENE2666 -CENE2660	CFA25 GENE8560 CFA25 GENE2662	38373232.00 38551044.00
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GENE2631 475712.00 HSA07 GENE8562 GENE890 173598320.00 HSA02	- 1944.00 - 1956.00	-GENE8562 -GENE8560	CFA25 GENE2631 CFA25 GENE6898	40524008.00 40845260.00
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GENE1001 228884208.00 HSA02 GENE1000 GENE1005 229765408.00 HSA02 GENE1001	2076.00	-GENE1000 -GENE1001	CFA25 GENE12151 CFA25 GENE12151 CFA25 GENE1005	45544192.00
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GENE1012 232780416.00 HSA02 GENE1009 GENE1018 232944928.00 HSA02 GENE6913	2242.00 2255.00	-GENE1009 -GENE6913	CFA25 GENE1015 CFA25 GENE12157	47359144.00 47464292.00
GENE1013 233090064.00 HSA02 GENE12156 233606528.00 HSA02 GENE1012	2269.00 2303.00	-GENE6914 -GENE1012 -GENE10154	CFA25 GENE1016 CFA25 GENE12158	47618976.00 47618976.00
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GENE12161 236229216.00 HSA02 BAC_375-L2 GENE6924 237319296.00 HSA02 GENE6924	21 2433.00 2437.00	BAC_375-L21 - GENE6924	CFA25 GENE6925 CFA25 GENE12163	50843192.00 51085972.00
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GENE 1029 238543488.00 HSA 02 GENE 12163 238583120.00 HSA 02 GENE 66927 238964912 00 HSA 02	2472.00 2480.00 2483.00	-GENE 12953 - -GENE 12160 - -GENE 890 -	CFA25 GENE1027 CFA25 GENE6931 CFA25 CENE1002	51732392.00 51913024.00 51913024.00
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GENE12168 242347376.00 HSA02 GENE1028 GENE6936 242417312.00 HSA02 GENE1029	2622.00 2636.00	-GENE1028 -GENE1029	CFA25 GENE6935 CFA25 GENE1032	54103824.00 54194548.00
GENE6935 242603664.00 HSR02 GENE1032 242701200.00 HSR02 GENE1038 GENE6933 242892912 00 HSR02	2640.00	-GENE12166 -GENE1038 -GENE12171	CFA25 <u>GENE6933</u> CFA36 <u>GENE890</u> CFA36 <u>CENE890</u>	54285584.00 21356722.00
GENE 12171 GENE 12171 GENE 12171 GENE 12958 GENE 12958 GENE 12958	2674.00	-GENE12958 -GENE6937	GENE892	21702968.00
GENE 12168 GENE 6936	2712.00 2719.00	-GENE12168 -GENE6936		
GENE1032 GENE6933	2729.00	-GENE1032 -GENE6933 -GENE1032		
GENE 1033 GENE 6935	- 2811.00	-GENE6935		

GENE9830 107102128.00 HSA12 GENE9831 107209104.00 HSA12 GENE9832 107457080.00 HSA12	-GENE4014 - -GENE4015 - 	0.00 27.00 39.00	-GENE4014	CFA26 GENE9904 CFA26 GENE4016 CFA26 GENE9903	3094965.00 3144403.00 3174337.00
GENE13707 107557840.00 HSA12 GENE9834 107814352.00 HSA12		46.00 51.00	-GENE9903	CFA26 GENE4015 CFA26 GENE4014	3222043.00 3345409.00
GENE9835 108039880.00 HSA12 GENE9837 108476232.00 HSA12 GENE3842 108566152 00 HCO12	-GENE13731 - U-GENE4016 - U-GENE13730 -	60.00 68.00 80.00	- GENE 13731	CFA26 GENE13731 CFA26 GENE9901 CE026 CENE13730	3345409.00 3390985.00 2472082.00
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GENE9839 108889424.00 HSA12 GENE3952 109239760.00 HSA12	-GENE4009 - -GENE4008 -	114.00 124.00	-GENE4009	CFA26 GENE13728 CFA26 GENE4010	4411512.00 4539848.00
GENE9841 109317752.00 HSA12 GENE13711 109364216.00 HSA12 GENE9842 10970975 00 HCO12	-GENE13727 - -GENE13728 - -GENE4011 -	134.00 136.00 138.00	-GENE 13727	CFA26 GENE4009 CFA26 GENE13727 CE026 CENE4008	4750668.00 4750668.00 4964104.00
GENE3954 109769816.00 HSA12 GENE3954 109769816.00 HSA12 GENE9843 110157776.00 HSA12	-GENE9894 - BAC_372-17	164.00 172.00	- GENE9894	CFA26 GENE9894 CFA26 GENE9894	5862853.00 5862853.00
GENE13712 110337520.00 HSA12 GENE9844 110528720.00 HSA12	BAC_372-114 _GENE13235 -	177.00 182.00	BAC_372-114 - GENE 13235	CFA26 GENE13235 CFA26 GENE4006	6021101.00 6021101.00
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GENE3955 111459544.00 HSA12 GENE9849 111685648.00 HSA12	-GENE4001 - -GENE4000 - -GENE13725 -	345.00 350.00 358.00	-GENE4001	CFA26 GENE4000 CFA26 GENE13724	8670206.00 8979199.00
GENE3961 111817104.00 HSH12 GENE9850 111836672.00 HSA12 GENE3962 111946368.00 HSA12	-GENE13725 - -GENE13724 - -GENE3996 -	375.00 380.00	- GENE 13725	CFH26 GENE3996 CFA26 GENE3999 CFA26 GENE9887	8979199.00 8979199.00 8979199.00
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GENE13715 112137912.00 HSA12 GENE3964 112246856.00 HSA12		409.00 424.00	-GENE9886	CFA26 GENE3998 CFA26 GENE12046	9256715.00 9312496.00
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GENE13717 115562448.00 HSA12 GENE13718 115587784.00 HSA12		495.00 501.00	-GENE12046	CFA26 GENE13723 CFA26 GENE3993	9508375.00 9656696.00
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GENE9868 119345352.00 HSA12 GENE3980 119414384.00 HSA12 GENE3981 119612632.00 HSA12	GENE3987 - GENE3984 - GENE3983 -	657.00 671.00 688.00	-GENE3987	CFR26 GENE9873 CFR26 GENE3984 CFR26 GENE9872	10911243.00 11001138.00 11001138.00
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GENE13722 120735792.00 HSA12 GENE3985 120759680.00 HSA12		855.00 871.00	- GENE3954	CFA26 GENE3955 CFA26 GENE9844	12295265.00 12444890.00
GENE9878 120793936.00 HSA12 GENE9878 121057280.00 HSA12 GENE9877 121230816.00 HSA12	GENE13712 - GENE3955 - GENE9844	910.00 935.00	-GENE3955	CFH26 GENE13713 CFA26 GENE3957 CFA26 GENE9845	12999890.00 12586813.00 12586813.00
GENE3988 121282656.00 HSA12 GENE9879 121623256.00 HSA12	-GENE 13713 - -GENE 3957 -	975.00 1002.00	- GENE 13713	CFA26 GENE9846 CFA26 GENE9847	12586813.00 12843221.00
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GENE3994 122082776.00 HSA12 GENE13723 122183040.00 HSA12		1092.00 1101.00	-GENE13715	CFA26 GENE13714 CFA26 GENE3963	13788012.00 13788012.00
GENE3995 122215448.00 HSA12 GENE9884 122325400.00 HSA12 GENE12046 122329432.00 HSA12		1103.00 1112.00 1139.00	-GENE3962	CFR26 GENE3964 CFR26 GENE3965 CFR26 GENE3967	13880121.00 14511291.00 15965365.00
GENE3998 122370624.00 HSA12 GENE9886 122434136.00 HSA12	- GENE3963 - GENE3964 -	1156.00 1162.00	-GENE3963	CFA26 GENE13718 CFA26 GENE13717	16554794.00
GENE3997 122510704.00 HSA12 GENE13724 122735392.00 HSA12		1174.00 1192.00	-GENE3965	CFA26 GENE9857 CFA26 GENE3969	16554794.00 16777244.00
GENE3996 122750304.00 HSA12 GENE9887 122774448.00 HSA12 GENE4000 123151776 00 HSA12	GENE 13718 - GENE 13717 - GENE 13717 - GENE 3969 -	1206.00 1209.00 1220.00	-GENE13718	CFA26 GENE13719 CFA26 GENE13720 CFA26 GENE33720	16777244.00 16894664.00 16894664.00
GENE13725 123191696.00 HSA12 GENE4001 123239016.00 HSA12	-GENE9857 - -GENE9857 - -GENE13719 -	1231.00 1248.00	-GENE9857	CFA26 GENE9859 CFA26 GENE9860	16998648.00 17345028.00
GENE13726 123801944.00 HSA12 GENE9891 123850160.00 HSA12	GENE13720 - GENE3970 -	1257.00 1260.00	-GENE13720	CFA26 GENE3972 CFA26 GENE9861	17610996.00 17727856.00
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GENE9892 124494584.00 HSA12 GENE13235 127533248.00 HSA12		1294.00 1305.00	-GENE9860 -GENE3972	CFA26 GENE3076 CFA26 GENE13721	18966996.00 18966996.00 19077928.00
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GENE4007 127908848.00 HSA12 GENE4008 129194408.00 HSA12 GENE13727 129633528.00 HSA12		1356.00 1381.00 1384.00	-GENE3974	CFA26 GENE9866 CFA26 GENE9868 CFA26 GENE3980	19296264.00 19531572.00 19635618.00
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GENE4011 130887616.00 HSA12 GENE4009 131039648.00 HSA12	GENE9865 - GENE9866 -	1403.00 1406.00	-GENE9865	CFA26 GENE9839 CFA26 GENE9838	20333732.00 20333732.00
GENE4013 131323624.00 HSA12 GENE13730 131435456.00 HSA12 GENE0001 131563238 00 HCO12	GENE3981 -	1441.00 1444.00 1447.00	-GENE9871	CFA26 GENE9837 CFA26 GENE9835 CF026 CENE9834	20666592.00 20954526.00 211564.04
GENE 4014 1316611328.00 HSA12 GENE 13731 131666952.00 HSA12		1452.00	-GENE9839	CFA26 GENE13707 CFA26 GENE13707 CFA26 GENE3943	21306992.00 21525946.00
GENE4015 131826024.00 HSA12 GENE9903 131872440.00 HSA12		1470.00 1473.00	-GENE3942 -GENE9834	CFA26 GENE9832 CFA26 GENE3942	21525946.00 21672372.00
GENE4016 131922416.00 HSA12 GENE9904 131970608.00 HSA12 GENE5587 16061691.00 HSA22		1487.00 1487.00 1489.00	-GENE9835	CFR26 GENE9831 CFR26 GENE9830 CFR26 GENE5608	21672372.00 21775516.00 22155396.00
GENE5588 16256801.00 HSA22 GENE5589 16869696.00 HSA22	GENE9832 - GENE9837 -	1492.00 1495.00	-GENE9832 -GENE9837	CFA26 GENE11493 CFA26 GENE11494	22290788.00 22416744.00
GENE11471 17426776.00 HSA22 GENE11472 17537354.00 HSA22		1498.00 1517.00	-GENE9838	CFA26 GENE13434 CFA26 GENE5609	22416744.00 22416744.00
GENE11473 17876664.00 HSH22 GENE11476 18671344.00 HSA22 GENE11477 19173536.00 HSA22		1525.00 1539.00 1562.00	-GENE3600	CFH26 GENE11495 CFA26 GENE5610 CFA26 GENE11496	22666932.00 22666932.00 23268296.00
GENE11478 19457828.00 HSA22 GENE5600 19921626.00 HSA22	GENE11493 - GENE13434 -	1574.00 1584.00	-GENE11493	CFA26 GENE5613 CFA26 GENE13435	23414642.00 24354858.00
GENE11481 20308208.00 HSA22 GENE11482 20438752.00 HSA22 GENE11483 20648102 00 HSA22	GENE5609 - GENE11495 -	1598.00 1609.00 1622.00	-GENE 11495	CFA26 GENE5615 CFA26 GENE11500 CFA26 CENE11500	24761640.00 24761640.00 25518120.00
GENE5602 20811180.00 HSA22 GENE11484 21192714.00 HSA22	GENE11490 - GENE5613 - GENE13435 -	1632.00 1645.00	-GENE5613	CFA26 GENE5618 CFA26 GENE11503	25780460.00 25926702.00
GENE13433 21805492.00 HSA22 GENE5609 22162276.00 HSA22		1669.00 1723.00	-GENE5615	CFA26 GENE13436 CFA26 GENE5620	26152824.00 26152824.00
GENEI11460 22419568.00 HSA22 GENE5604 22853680.00 HSA22 GENE11489 22945404 00 HSA22	GENE5622 - GENE5618 - DENE1150E	1758.00 1787.00 1812.00	-GENE5618	CFH26 GENE11505 CFA26 GENE5622 CFA26 GENE11547	26288470.00 26614142.00 26614142.00
SENE11490 23161024.00 HSA22 SENE5606 23243540.00 HSA22	-GENE 13436 - -GENE 11510 -	1836.00 1847.00	-GENE 13436	CFA26 GENE11508 CFA26 GENE5624	26770144.00 26770144.00
SENE11491 23262168.00 HSA22 SENE11492 23305832.00 HSA22 SENE5607 23225174 00 HSA22	-GENE11508 - - GENE11512 -	1852.00 1863.00 1873.00	-GENE 115 08	CFA26 GENE11509 CFA26 GENE11510 CFA26 CENETCOT	27148380.00 27280552.00 27280552.00
SENE5608 23579676.00 HSA22 SENE11493 23748412.00 HSA22	GENE3620 GENE11511 - GENE5625	1878.00 1883.00	-GENE11511 -GENE5625	CFA26 GENE11511 CFA26 GENE11512	27403344.00 27804988.00
GENE13434 23917258.00 HSA22 GENE11494 23927538.00 HSA22	-GENE11507 - -GENE5624 -	1894.00 1899.00	-GENE11507 -GENE5624 -GENE11500	CFA26 GENE5628 CFA26 GENE11484	27917480.00 29323760.00
SENE11495 24380666.00 HSA22 SENE11495 24617840.00 HSA22 SENE11496 25154348 00 HSA22	GENE 11509 - GENE 11503 - DENE 11503 -	1901.00 1914.00 1930.00	-GENE 11509 -GENE 11503 -GENE 11501	CFH26 GENE13433 CFA26 GENE11490 CFA26 GENEE6.46	29836902.00 30208896.00 30260330 00
SENE5613 25348696.00 HSA22 SENE13435 26471456.00 HSA22	GENE5620 - GENE5610 -	1970.00 2019.00	-GENE5620 -GENE5610	CFA26 GENE11492 CFA26 GENE5607	30310412.00 30355308.00
SENE5615 26813704.00 HSA22 SENE5620 26880656.00 HSA22	GENE11484 - BAC_381-B24	2119.00 2122.00 2135.00	-GENE 11484	CFA26 GENE11489 CFA26 GENE5604 CFA26 GENE5604	30387324.00 30477184.00
GENE11500 27010030.00 HSH22 GENE11501 27751640.00 HSA22 GENE5618 28047780.00 HSA22	BAC_381-06 GENE11490 -	2140.00 2156.00	BAC_381-06 -GENE11490	CFA26 GENE11486 CFA26 GENE5602	30834592.00 30834592.00 30834592.00
GENE11503 28211140.00 HSA22 GENE13436 28512484.00 HSA22	GENE5606 - GENE11491 -	2161.00 2168.00	-GENE5606 -GENE11491	CFA26 GENE11476 CFA26 GENE5589	31054100.00 31377688.00
GENEL1505 28732616.00 HSA22 GENE5622 29054724.00 HSA22 GENEL1507 29099304.00 HSA22	-GENE11492 - GENE5607 - GENE5604	2179.00 2184.00 2192.00	-GENE5607 -GENE5604	CFH26 GENE11473 CFA26 GENE5588 CFA26 GENE11472	31745316.00 31841022.00 32032436.00
GENE11508 29275930.00 HSA22 GENE5624 29356530.00 HSA22	-GENE 11489 - GENE 5600 -	2194.00 2213.00	-GENE11489 -GENE5600	CFA26 GENE5587 CFA26 GENE1849	32085710.00 32085710.00
GENE11509 29666524.00 HSA22 GENE5625 29826462.00 HSA22 GENE11510 20857864 40 HSA22	GENE11486 - GENE5602 -	2224.00 2228.00 2239.00	-GENE 11486 -GENE 56 02 -GENE 11476	CFA26 GENE11471 CFA26 GENE11477 CFA26 CENECC	32137396.00 32288404.00 32455766.00
GENE11511 30055360.00 HSA22 GENE11512 30563142.00 HSA22	GENE11478 - GENE5589 - GENE11473 -	2308.00 2313.00	-GENE5589 -GENE11473	CFA26 GENE11478 CFA26 GENE11481	32705016.00 32928480.00
GENE5628 30654268.00 HSA22 GENE1849 112845856.00 HSA05		2315.00 2325.00	-GENE5588 -GENE11472 -GENE5582	CFA26 GENE11482 CFA26 GENE11483	33027844.00 33229088.00
GENE12940 152745568.00 HSA13 GENE12940 152745568.00 HSA02 GENE9088 51307112.00 HSA04		2338.00 2338.00 2346.00	-GENE1849 -GENE11471	CFH26 GENE12940 CFA26 GENE9092 CFA26 GENE9091	33345152.00 34467948.00 36440828.00
GENE3195 51434392.00 HSA10 GENE9089 51496568.00 HSA10		2372.00 2384.00	-GENE11478 -GENE826	CFA26 GENE3196 CFA26 GENE3195	36590448.00 39130708.00
SENE13478 51917468.00 HSA10 SENE3196 54912868.00 HSA10 SENE5001 55041234 00 HSA10	BAC_416-J22 GENE11477 -	2389.00 2404.00 2439.00	OHC_918-J22 -GENE11477 -GENE11481	CFA26 GENE13478 CFA26 GENE9088 CFA26 CENE9088	39130708.00 39130708.00 39302460.00
SENE9092 57463760.00 HSA10 SENE9151 88931504.00 HSA10	GENE 11461 - GENE 11462 - GENE 11463 -	2466.00 2483.00	-GENE11482 -GENE11483	CFA26 GENE9151 CFA26 GENE3258	39653804.00 39775136.00
SENE3258 89145632.00 HSA10 SENE13490 89214128.00 HSA10	- GENE 12940 - - GENE 9092 -	2503.00 2533.00	-GENE12940 -GENE9092	CFA26 GENE13490 CFA26 GENE3259	39775136.00 39940608.00
aENE3259 89389400.00 HSA10 SENE9153 90029632.00 HSA10	BAC_373-E12 GENE9091 - R0C 291-011	2556.00 2567.00 2572.00	BRC_381-G11	CFA26 GENE9153 CFA26 GENE3260 CFA26 CENE12404	40511060.00 40658080.00 40701384 00
SENE3260 90255264 00 HC010	GENE3196 - GENE9151 -	2575.00 2628.00	-GENE3196 -GENE9151	CFA26 GENE3261 CFA26 <u>GENE91</u> 55	40769128.00 40915436.00
GENE3260 90255264.00 HSA10 GENE13491 90346624.00 HSA10 GENE3261 90438344.00 HSA10	A A A A A A A A A A A A A A A A A A A	2663.00	-GENE3195	CFAX GENE11491	92229752.00
GENE3260 90255264.00 HSA10 GENE13491 90346624.00 HSA10 GENE3261 90438344.00 HSA10 GENE9155 90637888.00 HSA10	- GENE3195 - GENE13478 -	2666.00	-GENE13478 -		
GENE3260 90255264.00 HSA10 GENE13491 90346624.00 HSA10 GENE3261 90438344.00 HSA10 GENE9155 90637888.00 HSA10		2666.00 2674.00 2685.00 2702.00	-GENE13478 -GENE9088 -GENE9089 -GENE3258		
SENE3260 90255264.00 HSA10 SENE13491 90346624.00 HSA10 SENE3261 90438344.00 HSA10 SENE9155 90637888.00 HSA10		2666.00 2674.00 2685.00 2702.00 2710.00 2721.00	-GENE13478 -GENE9088 -GENE9089 -GENE3258 -GENE13490 BAC_381-E19 -GENE2359		
SENE3260 90255264.00 HSA10 SENE13491 90346624.00 HSA10 SENE3261 90438344.00 HSA10 SENE9155 90637888.00 HSA10	GENE3195 - GENE13476 - GENE9088 - GENE9089 - GENE3258 - GENE13490 - BAC_381-E19 GENE3259 - GENE9153 - GENE2264	2666.00 2674.00 2685.00 2702.00 2710.00 2721.00 2729.00 2752.00	-GENE13478 -GENE9088 -GENE9089 -GENE3258 -GENE13490 BAC_381-E19 -GENE3259 -GENE9153 -GENE9153 -GENE3260		
SENE3260 90255264.00 HSA10 SENE13491 90346624.00 HSA10 SENE3261 90438344.00 HSA10 SENE9155 90637888.00 HSA10	GENE3195 - GENE3195 - GENE13478 - GENE9088 - GENE9089 - GENE3258 - GENE13490 - BAC_381-E19 GENE3259 - GENE9153 - GENE3260 - GENE3261 - GENE9155 -	2666.00 2674.00 2685.00 2702.00 2710.00 2721.00 2729.00 2752.00 2755.00 2768.00 2773.00	-GENE13478 -GENE9088 -GENE9089 -GENE3258 -GENE13490 BRC_381-E19 -GENE3259 -GENE3259 -GENE9153 -GENE3260 -GENE3261 -GENE9155		

GENE8938 119317616.00 HSA09 GENE3824 -	0.00	-GENE3824	A27 GENE3845	3415919.00
GENE537 221902304.00 HSA01 GENE9724 - GENE9593 264389.00 HSA12 GENE9593 264389.00 HSA12 GENE9723 - GENE9594 535536 00 HS012	34.00 61.00 79.00	-GENE9724 -GENE9722 -GENE9728	A27 GENE9734 A27 GENE3844	3415919.00 3712562.00 3846159.00
GENE13635 625101.00 HSA12 GENE13637 864045.00 HSA12 GENE13637 864045.00 HSA12	82.00 85.00	-GENE9729 -GENE3840	A27 GENE9731 A27 GENE9731 A27 GENE3842	3916932.00 3975034.00
GENE9596 1268726.00 HSA12 GENE3843 - GENE13638 1470868.00 HSA12 GENE3842 - GENE9598 1619107.00 HSA12 GENE3845 -	90.00 106.00 127.00	-GENE3843 CF -GENE3842 CF -GENE3845 CF	A27 GENE3841 A27 GENE9729 A27 GENE3840	4099454.00 4146115.00 4253895.00
GENE3709 1772331.00 HSA12 GENE13639 1774587.00 HSA12 GENE13639 1774587.00 HSA12 GENE9731 -	138.00 144.00 155.00	-GENE13219 CF -GENE9731 CF CENE9734	A27 GENE9728 A27 GENE9727	4537949.00 4753039.00 4922574 00
GENE 9599 1856685.00 HSH12 GENE 13640 1931836.00 HSA12 GENE 3710 1940538.00 HSA12 GENE 3710 1940538.00 HSA12	163.00 163.00 171.00	-GENE3844 -GENE3841	A27 GENE9726 A27 GENE9724 A27 GENE13217	4933674.00 5010265.00 5144934.00
GENE13199 2483825.00 HSA12 GENE13641 2658933.00 HSA12 GENE13200 2836093.00 HSA12 GENE13200 2836093.00 HSB12	179.00 184.00 187.00	-GENE9727 CF	A27 GENE9725 A27 GENE9722 A27 GENE9720	5280965.00 5430961.00 5601248.00
GENE13200 2838093.00 HSH12 GENE9603 3196317.00 HSA12 GENE13643 3262726.00 HSA12	192.00 206.00	-GENE9725	A27 GENE3833 A27 GENE3833 A27 GENE3832	5601248.00 5601248.00 5601248.00
GENE13644 3571179.00 HSA12 GENE9604 3634321.00 HSA12 GENE13645 3809021.00 HSA12 GENE13645 3809021.00 HSA12	209.00 214.00 220.00	-GENE3832	A27 GENE13660 A27 GENE9721 A27 GENE9719	5601248.00 5601248.00 5810359.00
GENE13646 4351877.00 HSA12 GENE9606 4424263.00 HSA12	237.00 251.00	-GENE3828 CF	A27 GENE3829 A27 GENE3828	6018958.00 6099025.00
GENE13201 4509131.00 HSA12 GENE9609 5215719.00 HSA12 GENE3720 5473860.00 HSA12 JULY GENE3720	253.00 256.00 261.00	-GENE3827CF -GENE3829CF -GENE9715CF	A27 GENE3827 A27 GENE9715 A27 GENE3825	6400755.00 6539528.00 6782110.00
GENE9610 5777139.00 HSA12 GENE3823 - GENE3721 5997298.00 HSA12 GENE3823 -	266.00 274.00	-GENE3823	A27 GENE9714 A27 GENE3824	6782110.00 6999191.00
GENE9611 6211641.00 HSA12 77 F GENE3722 6306635.00 HSA12 77 F GENE9612 6354243.00 HSA12 77 F	280.00 282.00 294.00	-GENE3025 CF -GENE9714 CF -GENE13212 CF	A27 GENE 13213 A27 GENE 3823 A27 GENE 13212	6999191.00 7080644.00 7258861.00
GENE3723 6437998.00 HSA12 GENE9710 - GENE9613 6515468.00 HSA12 GENE3821 - GENE3724 6561537 00 HSA12 GENE3821 -	300.00 311.00 323.00	-GENE9710	A27 GENE9710 A27 GENE3821	7435088.00 7567017.00 7710875 00
GENE9614 6632243.00 HSA12 GENE3820 - GENE9615 6650165.00 HSA12 GENE3819 -	325.00 328.00	-GENE3820	A27 GENE3820 A27 GENE3819	7710875.00 7850746.00
GENE9616 6808865.00 HSA12 000 11 10 10 10 10 10 10 10 10 10 10 10	336.00 339.00 347.00	-GENE9707	A27 GENE9707 A27 GENE9706 A27 GENE3817	7926349.00 8075048.00 8147058.00
GENE3727 6947631.00 HSA12 GENE3727 6947631.00 HSA12 GENE3728 7140033.00 HSA12 GENE3817 -	354.00 362.00	-GENE9705	A27 GENE9705 A27 GENE9703	8264565.00 8482754.00
GENE9618 7192081.00 HSA12 0072 0 GENE3729 7251520.00 HSA12 0172 0 GENE9619 7398043.00 HSA12 0172 0 GENE9619 7398043.00 HSA12 0001 0	378.00 381.00 383.00	-GENE13211 CF -GENE3813 CF -GENE9703 CF	A27 GENE3815 A27 GENE13211 A27 GENE3813	8592484.00 8620325.00 8785427.00
GENE3730 7528525.00 HSA12 GENE3620 7836683.00 HSA12 GENE3620 7836683.00 HSA12	388.00 391.00 396.00	-GENE3810 CF	A27 GENE9699 A27 GENE3811	8895299.00 8895299.00 0105570 00
GENE3621 7976505.00 HSH12 GENE3734 8562209.00 HSA12 GENE3623 8582867.00 HSA12 GENE3623 8582867.00 HSA12	406.00 408.00	-GENE9698	A27 GENE9698 A27 GENE9698 A27 GENE3809	9125679.00 9449055.00 9619465.00
GENE9624 8819983.00 HSA12 VALAN A A A A A A A A A A A A A A A A A A	421.00 433.00 436.00	-GENE9697 CF -GENE3806 CF -GENE9696 CF	A27 GENE9697 A27 GENE9696 A27 GENE3807	9719764.00 9847078.00 9956585.00
GENE3738 9123096.00 HSA12 GENE9627 9601147.00 HSA12	438.00 452.00	- GENE3807 CF	A27 GENE13209 A27 GENE3806	10014295.00 10088783.00
GENE9628 9736489.00 HSA12 GENE3628 9736489.00 HSA12 GENE364 GENE364 GENE364 GENE364 GENE364 GENE3629 9870898.00 HSA12 GENE3664 GENE36	457.00 474.00 479.00	-GENE537	A27 GENE537 A27 GENE9694 A27 GENE13656	10320084.00 10320084.00 10730776.00
GENE3741 10042550.00 HSA12 GENE3630 10132742.00 HSA12 GENE3630 10132742.00 HSA12	485.00 487.00 495.00	-GENE13656	A27 GENE3805 A27 GENE3804	10730776.00 11085557.00
GENE3742 10169696.00 HSH12 GENE9631 10265589.00 HSA12 GENE3743 10352910.00 HSA12	497.00 510.00	-GENE9691 CF	A27 GENE3802 A27 GENE3802 A27 GENE8938	11917396.00 12709859.00
GENE9632 10430518.00 HSA12 GENE9633 10666386.00 HSA12 GENE9633 10666386.00 HSA12 GENE8938 - GENE3745 10742565.00 HSA12 GENE9689 -	518.00 521.00 527.00	BAC_373-013 CF -GENE8938 CF -GENE9689 CF	A27 GENE9689 A27 GENE13654 A27 GENE3800	12818065.00 13318913.00 13318913.00
GENE3744 10742805.00 HSA12 GENE9634 10845664.00 HSA12	546.00 561.00	-GENE9686 CF	A27 GENE3799 A27 GENE13208	13620317.00 14455702.00
GENE3746 11202199.00 HSA12 GENE9635 11929745.00 HSA12 GENE13204 12142835.00 HSA12 GENE13204 12142835.00 HSA12	578.00 578.00 581.00	-GENE 13654 CF -GENE 3800 CF -GENE 3799 CF	A27 GENE9686 A27 GENE3797 A27 GENE9685	14589902.00 14818540.00 15271585.00
GENE9636 12203451.00 HSA12 GENE3747 12368056.00 HSA12 GENE3748 12387023.00 HSA12 GENE3748 12387023.00 HSA12	605.00 619.00 628.00	-GENE3797 CF	A27 GENE3796 A27 GENE3795 A27 GENE9699	15833652.00 16232224.00 16676028.00
GENE3749 12564371.00 HSA12 GENE3648 12706441.00 HSA12 GENE3648 12706441.00 HSA12	649.00 664.00	- GENE3795 CF	A27 GENE3794 A27 GENE9682	16873512.00 16966252.00
GENE3751 12952261.00 HSH12 GENE3752 13139183.00 HSA12 GENE9641 13254621.00 HSA12 BAC 382-A5	675.00 683.00 686.00	- GENE9682 CF BAC_382-A5 CF	H27 GENE3793 A27 GENE9681 A27 GENE3792	1/357218.00 17357218.00 17646936.00
GENE3753 13655305.00 HSA12 GENE9642 14541082.00 HSA12 GENE3754 14584488.00 HSA12 GENE3754 14584488.00 HSA12	700.00 707.00 725.00	-GENE3793 CF	A27 GENE9680 A27 GENE3791 A27 GENE3791	17971806.00 18671160.00 19107660.00
GENE9643 14695126.00 HSA12 GENE3795 14833798.00 HSA12 GENE3755 14833798.00 HSA12	734.00 755.00	- GENE3791 CF	A27 GENE9678 A27 GENE9679	19107660.00 19107660.00
GENE3756 14883966.00 HSA12 GENE3644 14951109.00 HSA12 GENE3645 14956813.00 HSA12 GENE3645 14956813.00 HSA12	766.00 778.00 780.00	- GENE3790 CF - GENE9677 CF - GENE9678 CF	A27 GENE9677 A27 GENE3788 A27 GENE9676	19544136.00 19781134.00 19989930.00
GENE3757 15260601.00 HSA12 GENE3646 15547660.00 HSA12 GENE3646 15547660.00 HSA12	783.00 788.00 781.00	-GENE9679 CF	A27 GENE9675 A27 GENE13652	20257936.00 20433612.00
GENE3759 16082420.00 HSH12 GENE9648 16407914.00 HSA12 GENE3760 16481075.00 HSA12 	794.00 799.00	-GENE3078	A27 GENE13207 A27 GENE9671 A27 GENE9670	20512048.00 21621952.00 22216496.00
GENE9649 16644550.00 HSA12 GENE3761 18133884.00 HSA12 GENE9650 18606678.00 HSA12 GENE9650 18606678.00 HSA12	804.00 841.00 861.00	-GENE13652 CF -GENE9671 CF -GENE9670 CF	A27 GENE9668 A27 GENE3780 A27 GENE9666	23026060.00 23026060.00 23026060.00
GENE3762 18749226.00 HSA12 GENE9651 19419546.00 HSA12	878.00 880.00	-GENE9668 CF	A27 GENE3779 A27 GENE9667	23195694.00 23361222.00
GENE3763 19562008.00 HSA12 GENE3652 20673660.00 HSA12 GENE3764 20739004.00 HSA12 BAC_382-A22	895.00 915.00 918.00	- GENE9666 CF - GENE3779 CF BAC_382-A22 CF	A27 GENE3777 A27 GENE3776 A27 GENE9665	23705662.00 23705662.00 23705662.00
GENE9653 20854776.00 HSA12 GENE3765 21216264.00 HSA12 GENE3765 000 HSA12	920.00 931.00 936.00	-GENE9667 CF	A27 GENE9664	24331468.00 24437838.00
GENE13049 21512206.00 HSH12 GENE13206 21549448.00 HSA12 GENE3767 21686712.00 HSA12 GENE3664 -	944.00 964.00	-GENE9665 CF	A27 GENE13650 A27 GENE9663 A27 GENE3774	24560948.00 24560948.00 25062318.00
GENE9656 21808904.00 HSA12 GENE3768 21891566.00 HSA12 GENE9657 22109370.00 HSA12 GENE9657 22109370.00 HSA12	979.00 981.00 986.00	- GENE13650 CF - GENE3775 CF - GENE9663 CF	A27 GENE9662 A27 GENE9661 A27 GENE3773	25274556.00 25427256.00 25427256.00
GENE9658 22512720.00 HSA12 GENE3770 22728612.00 HSA12 GENE3770 22728612.00 HSA12	997.00 1002.00	-GENE3774 CF	A27 GENE3772 A27 GENE9660	25614830.00 25807564.00
GENE 9659 23101/52.00 HSH12 GENE 3771 23938910.00 HSA12 GENE 9660 24612104.00 HSA12 GENE 9660 24612104.00 HSA12	1007.00 1015.00	-GENE3001	A27 GENE3771 A27 GENE9659 A27 GENE3770	27204110.00 2727910.00
GENE3772 24921252.00 HSA12 GENE3772 - GENE9661 25081788.00 HSA12 GENE9660 - GENE3773 25167460.00 HSA12 GENE3771 -	1025.00 1028.00 1033.00	-GENE3772	A27 GENE9658 A27 GENE9657 A27 GENE9656	27765262.00 28123292.00 28321260.00
GENE9662 25248070.00 HSA12 GENE3774 25547584.00 HSA12	1041.00 1055.00	-GENE9659 -GENE3770	A27 GENE3566 A27 GENE3768 A27 GENE13206	28321260.00 28539360.00
GENE9663 26000288.00 HSA12 GENE13650 26107956.00 HSA12 GENE9664 26268030.00 HSA12 GENE9664 26268030.00 HSA12	1069.00 1086.00 1092.00	GENE3744 - GENE3658 - GENE9657 CF CF CF	A27 GENE3767 A27 GENE13649 A27 GENE9653	28539360.00 29406648.00 29604518.00
GENE3775 26283748.00 HSA12 GENE3776 26766080.00 HSA12 GENE3776 26766080.00 HSA12	1097.00 1103.00	-GENE3743 -GENE13206 -CENE2323	A27 GENE9652 A27 GENE3765	29604518.00 29604518.00
GENE 9665 26950612.00 HSH12 GENE3777 27023826.00 HSH12 GENE3666 27178344.00 HSH12 GENE9666 27178344.00 HSH12	1119.00 11137.00	-GENES767 -GENES741 -GENE9656	A27 GENE6338 A27 GENE6338 A27 GENE3763	29604518.00 30626168.00 30626168.00
GENE9667 27443844.00 HSA12 GENE3779 27539588.00 HSA12 GENE37668 27740410-00 HSA12	1237.00 1239.00 1242.00	-GENE9653 - CF -GENE13649 - CF -GENE9652 - CF	A27 GENE9651 A27 GENE3762 A27 GENE9650	30762286.00 31290880.00 31540264.00
GENE3780 27781364.00 HSA12 GENE9670 28492520.00 HSA12	1264.00 1274.00	-GENE9651 CF	A27 GENE3661 A27 GENE3649	31883758.00 33142454.00
GENE9671 29425064.00 HSA12 GENE13207 30754428.00 HSA12 GENE3785 31026158.00 HSA12 GENE3785 31026158.00 HSA12	1285.00 1307.00 1315.00	-GENE3763 CF -GENE3762 CF -GENE9650 CF	A27 GENE3760 A27 GENE9648 A27 GENE3759	33291280.00 33392106.00 33653516.00
GENE13652 31342020.00 HSA12 GENE9675 31503924.00 HSA12	1326.00 1350.00	-GENE3761 CF BAC_385-G3 CF	A27 GENE9646 A27 GENE3757	34170704.00 34532740.00
GENE3676 31741240.00 HSH12 GENE3788 32029724.00 HSH12 GENE36677 32422796.00 HSH12 GENE3667 - GENE3660 -	1358.00 1358.00 1363.00	-GENE9649 -GENE3760	A27 GENE9644 A27 GENE9644 A27 GENE3756	34739340.00 34739340.00 34867380.00
GENE9678 32775036.00 HSA12 GENE3790 32791146.00 HSA12 GENE9679 32885220.00 HSA12 GENE9679 32885220.00 HSA12	1365.00 1382.00 1384.00	-GENE3734 -GENE9646 -GENE3757	A27 GENE3755 A27 GENE9642 A27 GENE3754	34867380.00 35027528.00 35027528.00
GENE3791 33469016.00 HSA12 GENE9680 34089864.00 HSA12 GENE9680 34089864.00 HSA12	1389.00 1394.00 1409.00	-GENE9645 CF	A27 GENE9643 A27 GENE3753	35027528.00 35855588.00
GENE3792 37534720.00 HSH12 GENE9681 37751752.00 HSA12 GENE3793 38020888.00 HSA12	1414.00 1417.00	-GENE3754 CF	A27 GENE3041 A27 GENE3752 A27 GENE3751	36304464.00 36422348.00
GENE9682 38296332.00 HSA12 GENE3794 38361916.00 HSA12 GENE9683 38630924.00 HSA12	1425.00 1445.00 1455.00	-GENE3753 CF -GENE9641 CF -GENE3726 CF	A27 GENE13648 A27 GENE3749 A27 GENE3748	36710628.00 36832376.00 36960480.00
GENE3795 39044052.00 HSA12 GENE3796 39613304.00 HSA12 GENE3796 40242956 00 HSA12 GENE9685 40242956 00 HSA12	1477.00 1484.00 1489.00		A27 GENE9636 A27 GENE3747	37168920.00 37168920.00 37168920.00
GENE3797 40766712.00 HSA12 GENE9686 41015296.00 HSA12 	1494.00 1505.00	-GENE3722 -GENE13648	A27 GENE9635 A27 GENE3746	37452112.00 37777600.00
GENE13200 41148540.00 HSR12 GENE3799 42103452.00 HSR12 GENE13654 42477652.00 HSR12 BAC 376-H15	1513.00 1529.00 1545.00	GENE9635 - CF	H27 GENE9634 A27 GENE3745 A27 GENE9633	37933640.00 38064504.00 38121612.00
GENE9689 43067292.00 HSA12 GENE3802 44036896.00 HSA12 GENE3802 44036896.00 HSA12	1564.00 1574.00 1581.00		A27 GENE9632 A27 GENE3743	38620592.00 38759184.00
GENE9691 44516748.00 HSA12 GENE3694 45044688.00 HSA12 GENE368 - 45044688.00 HSA12 GENE368 - 45044688.00 HSA12	1597.00 1618.00	-GENE3768 - CF	A27 GENE3742 A27 GENE3741	38759184.00 38909896.00
GENE3606 45950072.00 HSH12 GENE3604 45914952.00 HSA12 GENE3806 46343052.00 HSA12 GENE3806 46343052.00 HSA12	1636.00 1652.00		H27 GENE9630 A27 GENE3740 A27 GENE9629	30909896.00 39166004.00 39166004.00
GENE13209 46419192.00 HSR12 GENE3807 46469700.00 HSR12 GENE9696 46525928.00 HSR12	1673.00 1683.00 1691.00	-GENE3740 -GENE3740 -GENE3629	H27 GENE9628 A27 GENE9627 A27 GENE9626	39277964.00 39413216.00 39663996.00
GENE9697 46723728.00 HSA12 GENE3809 46864520.00 HSA12 GENE3809 47024484 00 HSA12 GENE9698 47024484 00 HSA12	1701.00 1711.00 1714.00		A27 GENE3738 A27 GENE13203	39663996.00 39816124.00
GENE3805 47056124.00 HSA12 GENE3810 47172304.00 HSA12 GENE3810 47172304.00 HSA12	1719.00 1724.00	-GENE9626	A27 GENE9620 A27 GENE9621	40254700.00 40298848.00
GENE 9699 47240160.00 HSA12 GENE 13211 47645096.00 HSA12 GENE 9703 47776748.00 HSA12	1745.00 1758.00 1765.00	-GENE3738	H27 GENE3734 7427 GENE9623 7427 GENE3734	40576216.00 40576216.00 40576216.00
GENE9705 48031208.00 HSA12 GENE3817 48201068.00 HSA12 GENE3817 48201068.00 HSA12	1781.00 1789.00	-GENE3759 -GENE3621	A27 GENE9619 A27 GENE9618	40576216.00 40893200.00
GENE9706 48278484.00 HSH12 GENE9620 - GENE9707 48437300.00 HSA12 GENE9623 - GENE3820 48652416.00 HSA12 GENE3730 -	1802.00 1812.00 1817.00	-GENE 9620	A27 GENE3729 A27 GENE3728 A27 GENE3727	40893200.00 40893200.00 41063312.00
GENE9709 48685360.00 HSA12 HANNEY GENE9618 - GENE3821 48783500.00 HSA12 HANNEY GENE9616 - GENE3811 48946384.00 HSA12 HANNEY GENE3727 -	1824.00 1834.00 1836.00	-GENE9618CF	A27 GENE9617 A27 GENE3726 A27 GENE9616	41116792.00 41155352.00 41155352.00
GENE9710 48962716.00 HSA12 AVAILABLE AV	1841.00 1844.00	-GENE9615 CF	A27 GENE9615 A27 GENE9614	41355140.00 41355140.00
GENE3813 49170832.00 HSA12 404 404 49613 - GENE3823 49351120.00 HSA12 404 404 404 404 404 404 404 404 404 40	1846.00 1848.00 1859.00	-GENE9013 -GENE9612 -GENE3724	A27 GENE9613 A27 GENE3724 A27 GENE3723	41427944.00 41427944.00 41514360.00
GENE3824 49475640.00 HSA12 GENE3720 - GENE3815 49516556.00 HSA12 GENE3720 - GENE9714 49727928.00 HSA12 GENE3726 -	1880.00 1906.00 1908.00	-GENE3720	A27 GENE9612 A27 GENE3722 A27 GENE9614	41600868.00 41644536.00 41725988 00
GENE3825 49756108.00 HSA12 GENE3755 - GENE9715 50026020.00 HSA12 GENE3729 -	1927.00 1945.00	-GENE3755 CF	A27 GENE3721 A27 GENE9610	41906320.00 42074036.00
GENE3819 50278436.00 HSR12 GENE3829 50655076.00 HSR12 GENE9719 50915092.00 HSR12 GENE9719 50915092.00 HSR12	1952.00 1962.00 1969.00	-GENESIZO	H27 GENE3720 7A27 GENE9609 7A27 GENE9606	42327240.00 42613396.00 43389256.00
GENE9720 51065288.00 HSA12 GENE9720 511065288.00 HSA12 GENE3748 - GENE13660 51108020.00 HSA12 GENE3751 -	1979.00 1995.00 2002.00	-GENE3748 -/ CF -GENE3751 - CF -GENE3723 - CF	A27 GENE13201 A27 GENE13646 A27 GENE13646	43389256.00 43504992.00 43993304
GENE9722 51358276.00 HSA12 GENE9725 51493564.00 HSA12 GENE9725 51493564.00 HSA12	2011.00 2024.00	-GENE3721 -GENE9611 CENE9610	A27 GENE9604 A27 GENE1324	44095072.00
GENE13217 51718880.00 HSH12 GENE3827 51807920.00 HSA12 GENE9724 51864560.00 HSA12	2029.00 2046.00 2062.00	-GENE9609 CF -GENE13646 CF	H27 GENE13644 A27 GENE13643 A27 GENE3785	44236768.00 44508896.00 44508896.00
GENE9726 51986704.00 HSA12 50 GENE9606 - GENE9727 52147024.00 HSA12 50 HSA1	2070.00 2074.00 2097.00	-GENE9606	A27 GENE9603 A27 GENE13200 A27 GENEEE01	44591304.00 44993452.00 44993452.00
GENE9728 52404520.00 HSA12 GENE9604 - GENE3840 52696724.00 HSA12 GENE3840 52696724.00 HSA12	2107.00 2120.00	-GENE9604 CF -GENE13644 CF CENE1324 CF	A27 GENE9593 A27 GENE9594	45339964.00 45607320.00
GENE3832 52863008.00 HSH12 GENE1324 - CAGENE1324 - CAGENE134 - C	2141.00 2160.00 2162.00	-GENE13643 CF -GENE13200 CF	H27 GENE13635 A27 GENE13637 A27 GENE9596	45607320.00 45992728.00 46265612.00
GENE3833 53009820.00 HSA12 GENE3842 53021052.00 HSA12 GENE9731 53074864.00 HSA12	2177.00 2190.00 2193.00	-GENE9603 BAC_372-K5 -GENE3785	A27 GENE13638 A27 GENE9598 A27 GENE12622	46475672.00 46713984.00 46818792.00
GENE3843 53189024.00 HSA12 GENE3844 53314800.00 HSA12 GENE3844 53314800.00 HSA12	2202.00	-GENE5581 CF	A27 GENE3709 A27 GENE13640	46818792.00 46955588.00
GENE3734 53706148.00 HSH12 GENE3734 53706148.00 HSA12 GENE3845 55415600.00 HSA12 GENE3845 55415600.00 HSA12	2229.00 2240.00	BAC_372-C12 CF	A27 GENE9599 A27 GENE3710 A27 GENE13199	46955588.00 46955588.00 47572320.00
GENE1324 156866032.00 HSA03 GENE5581 14461855.00 HSA21 GENE11468 16470482.00 HSA22 GENE13638	2253.00 2264.00 2268.00	-GENE13637 - CF -GENE9596 - CF -GENE13638 - CF	A27 GENE13641 A27 GENE11468	47739968.00 48215252.00
	2273.00 2281.00 2288.00	-GENE9598 -GENE13640 -GENE13639		
	2298.00 2303.00	-GENE3709 -GENE9599		
	2315.00 2333.00 2363.00	-GENE3710 -GENE13199 -GENE13641		
-GENE11468 -	2375.00	- GENE11468		

RH MAP CFA28

GENE9245 0.00 HSA10 GENE9070 42653240.00 HSA10 GENE3175 42905752.00 HSA10	GENE9076 - GENE9084 - GENE9086 -	0.00 28.00 44.00	-GENE9076 -GENE9084 -GENE9086 -GENE9086 -GENE9086
GENE9071 42980000.00 HSA10 GENE3176 43165124.00 HSA10 GENE9072 43336968.00 HSA10 GENE3177 43449792 00 HSA10	GENE9083 - GENE3189 - GENE13474 - GENE13488 -	58.00 62.00 65.00 75.00	-GENE9083 -GENE3189 -GENE13474 -GENE3188
GENE3177 43449792.00 HSH10 GENE9073 43638512.00 HSA10 GENE3178 43902920.00 HSA10 GENE9074 44157596.00 HSA10	GENE3190 - GENE3190 - GENE3192 - GENE13475 -	91.00 107.00 117.00	-GENE3190
GENE9075 44764248.00 HSA10 GENE3179 44774940.00 HSA10 GENE9076 45243060.00 HSA10	BAC_381-J24 GENE9082 GENE3186	137.00 153.00 168.00	BAC_381-J24 CFA28 GENE9086 4539706.00 -GENE9082 -GENE3186 CFA28 GENE3192 4539706.00 -GENE3186 CFA28 GENE13476 4597373.00
GENE3186 49283760.00 HSA10 GENE3189 49287272.00 HSA10 GENE9082 49357156.00 HSA10 GENE9182 49455152.00 HSA10	BRC_382-122 GENE3187 GENE13476 CENE3193	185.00 202.00 218.00 241.00	BRC_382-122 -GENE3187 -GENE13476 -GENE13476 -GENE13476 -GENE3193 -GENE3
GENESIO7 49465152.00 HSH10 GENE9083 49660452.00 HSA10 GENE13474 49683616.00 HSA10 GENE3188 49698152.00 HSA10	GENE0150 GENE0075 GENE0179 BAC_382-A20	267.00 278.00 294.00	-GENE3075 CFA28 GENE3074 5909891.00 -GENE3179 CFA28 GENE3178 6198536.00 BAC_382-A20 CFA28 GENE3073 6326828.00
GENE9084 49879616.00 HSA10 GENE3192 49890764.00 HSA10 GENE3190 49918000.00 HSA10	GENE3178 - GENE9074 - GENE9073 -	314.00 337.00 349.00	-GENE3178
GENE13475 50012408.00 HSA10 GENE9086 50232236.00 HSA10 GENE13476 50303696.00 HSA10	GENE9070 - GENE9071 - GENE3176 -	368.00 383.00 388.00	-GENE9070
GENE3193 50929168.00 HSH10 GENE9156 90856976.00 HSA10 GENE3263 91016816.00 HSA10 GENE9157 91167624.00 HSA10	GENE3072 - GENE3072 - GENE3177 - GENE3175 -	402.00 408.00 422.00	-GENE3177
GENE3264 91379208.00 HSA10 GENE9158 91824424.00 HSA10 GENE3265 92121984.00 HSA10	GENE9156	443.00 459.00 474.00	-GENE9156
GENE3266 92344664.00 HSA10 GENE9160 92575856.00 HSA10 GENE3267 92646840.00 HSA10	GENE9158	483.00 486.00 496.00	-GENE9158
GENE3269 92779808.00 HSA10 GENE9161 92911248.00 HSA10 GENE3268 92937496.00 HSA10	GENE3265	516.00 530.00 560.00	-GENE3265 - CFA28 GENE10118 9181106.00 -GENE3264 - CFA28 GENE9162 9181106.00 -GENE10118 - CFA28 GENE3268 9181106.00 CFA28 GENE3268 9181106.00
GENE10118 92999272.00 HSH10 GENE9162 93054840.00 HSA10 GENE9163 93421152.00 HSA10 GENE9165 94054336.00 HSA10	GENE9161	572.00 591.00 602.00 609.00	-GENE9181
GENE3273 94054672.00 HSA10 GENE9166 94317616.00 HSA10 GENE9167 94497472.00 HSA10	GENE9163 - GENE9165 - GENE9166 -	612.00 619.00 630.00	-GENE9163
GENE3274 94647856.00 HSA10 GENE9168 94816752.00 HSA10 GENE9169 95017816.00 HSA10		641.00 648.00 659.00	-GENE3273
GENE3276 95037024.00 HSA10 GENE9170 95108728.00 HSA10 GENE3277 95221608.00 HSA10	GENE9169	662.00 666.00 673.00	-GENE9169 - CFA28 GENE9170 10908114.00 -GENE9167 - CFA28 GENE3277 11030085.00 -GENE3276 - CFA28 GENE9171 11105114.00 -GENE3267 - CFA28 GENE9171 11105114.00
GENE 9171 95327004.00 HSH10 GENE 9172 95528696.00 HSA10 GENE 3278 95556248.00 HSA10 GENE 9173 95763792.00 HSA10	GENE0207	687.00 704.00 743.00	-GENE9170
GENE3279 95785416.00 HSA10 GENE3280 95956944.00 HSA10 GENE9174 96661712.00 HSA10	GENE3277	756.00 762.00 769.00	-GENE3277 CFA28 GENE3280 11649342.00 -GENE3278 CFA28 GENE9174 11781291.00 -GENE9173 CFA28 GENE3281 11829356.00
GENE3281 96735744.00 HSA10 GENE9175 97038016.00 HSA10 GENE3282 97104336.00 HSA10		779.00 793.00 804.00	-GENE3279
GENE9176 97267920.00 HSA10 GENE3283 97398264.00 HSA10 GENE3284 97557480.00 HSA10 GENE3284 97557480.00 HSA10	GENE 91/4	811.00 822.00 833.00 858.00	-GENE9174
GENE3286 97587896.00 HSA10 GENE9178 97620368.00 HSA10 GENE3285 97791304.00 HSA10	GENE9180 - GENE9179 - BAC_381-M21	875.00 885.00 893.00	-GENE9180 - CFA28 GENE9179 12837871.00 -GENE9179 CFA28 GENE3285 12837871.00 BAC_381-H21 CFA28 GENE13494 13043812.00
GENE9179 97944928.00 HSA10 GENE13494 98044040.00 HSA10 GENE9180 98257648.00 HSA10	GENE3287 - GENE13494 - GENE3286 -	905.00 921.00 931.00	-GENE3287 - CFA28 GENE3286 13043812.00 -GENE13494 - CFA28 GENE9180 13221496.00 -GENE3286 - CFA28 GENE9181 13341647.00
GENE3289 98312672.00 HSA10 GENE3287 98347728.00 HSA10 GENE9181 98405040.00 HSA10 GENE9182 98692926 00 HSA10	GENE3285 - GENE3285 - GENE3218 - GENE3282 - GENE3282 -	940.00 953.00 976.00	-GENE3285
GENE9102 90003336.00 HSA10 GENE9183 98812384.00 HSA10 GENE3290 98883144.00 HSA10 GENE9184 98992176.00 HSA10	GENE3283 - BAC_381-F20 GENE3284 -	1020.00 1026.00 1038.00	-GENE3283 - CFA28 GENE3290 13733459.00 BAC_381-F20 - GENE3284 - CFA28 GENE9184 13836004.00 CFA28 GENE13152 13915898.00
GENE13152 99041264.00 HSA10 GENE9185 99090280.00 HSA10 GENE3292 99184184.00 HSA10	GENE3289 - GENE9183 - GENE9182 -	1062.00 1077.00 1086.00	-GENE3289
GENE9186 99288192.00 HSA10 GENE3294 99668688.00 HSA10 GENE3295 99883240.00 HSA10	GENE9184	1095.00 1101.00 1107.00	-GENE9184
GENE3296 100390272.00 HSA10 GENE9189 100781696.00 HSA10 GENE13495 100844944.00 HSA10 GENE9190 100957664.00 HSA10	GENE 9185 - GENE 9185 - GENE 9186 - GENE 9186 - GENE 3294 -	1113.00 1122.00 1127.00 1130.00	-GENE9185 - CFA28 GENE3296 15370832.00 -GENE3292 - CFA28 GENE9189 15370832.00 -GENE9186 - CFA28 GENE9190 15485352.00 -GENE3294 - CFA28 GENE9190 15485352.00
GENE3297 101034432.00 HSA10 GENE3297 101034432.00 HSA10 GENE9191 101151248.00 HSA10 GENE13496 101167784.00 HSA10	-GENE3295 - BAC_373-E6 	1136.00 1148.00 1153.00	-GENE3295 - CFA28 GENE13496 15656080.00 BAC_373-E6 - CFA28 GENE9191 15656080.00 CFA28 GENE9191 15656080.00 CFA28 GENE9192 15747680.00
GENE9192 101269696.00 HSA10 GENE3299 101379424.00 HSA10 GENE9193 101493848.00 HSA10	GENE3296 - GENE3297 - GENE9189 -	1156.00 1159.00 1162.00	-GENE3296 -GENE3297 -GENE3297 -GENE9189 -GENE9189 -GENE9189 -GENE9189 -GENE9189 -GENE9189 -GENE9189 -GENE9189 -GENE3297 -GENE3
GENE13497 101628568.00 HSA10 GENE9194 101685840.00 HSA10 GENE3301 101712344.00 HSA10 GENE3305 101712344.00 HSA10	GENE9190 GENE13496 GENE13497 CENE2399	1170.00 1173.00 1179.00	-GENE9190 - CFA28 GENE9194 16080085.00 -GENE13496 - CFA28 GENE9195 16080085.00 -GENE13497 - CFA28 GENE3301 16080085.00 -GENE3399 - CFA28 GENE3301 16080085.00
GENE 3135 101771406.00 HSH10 GENE 13153 101950112.00 HSA10 GENE 3303 102211040.00 HSA10 GENE 3306 102347504.00 HSA10	GENE3239 GENE9192 - GENE9191 - GENE9194 -	1206.00 1231.00 1256.00	-GENE9192
GENE9197 102382456.00 HSA10 GENE3304 102488264.00 HSA10 GENE9198 102562112.00 HSA10	GENE9193 - GENE9197 - GENE9197 - GENE9195 -	1277.00 1299.00 1309.00	-GENE9193 - CFA28 GENE3304 16802172.00 -GENE9197 - CFA28 GENE9199 16802172.00 -GENE9195 - CFA28 GENE13498 17085100.00
GENE9199 102686528.00 HSA10 GENE13498 102903472.00 HSA10 GENE9200 103034880.00 HSA10	GENE3301 - GENE13153 - GENE3303 -	1322.00 1334.00 1343.00	-GENE3301 - CFA28 GENE3306 17085100.00 -GENE13153 - CFA28 GENE9200 17237464.00 -GENE3303 - CFA28 GENE3307 17324670.00
GENE3307 103094816.00 HSA10 GENE9201 103237072.00 HSA10 GENE3310 103238944.00 HSA10 GENE9202 103491312.00 HSA10	GENE 9198 - GENE 9198 - GENE 9198 - GENE 9199 - GENE 13498 - GENE 13498	1356.00 1359.00 1362.00 1374.00	-GENE9198
GENE3309 103568064.00 HSA10 GENE13499 103653904.00 HSA10 GENE9204 103825096.00 HSA10		1377.00 1386.00 1389.00	-GENE3306 - CFA28 GENE3310 17792700.00 -GENE3307 - GENE9200 - CFA28 GENE9204 17863296.00 -GENE9200 - CFA28 GENE3311 18049282.00
GENE3311 103926176.00 HSA10 GENE9205 104043480.00 HSA10 GENE9206 104236240.00 HSA10	GENE9201 - GENE9202 - GENE9204 -	1410.00 1414.00 1424.00	-GENE9201 CFA28 GENE9205 18128682.00 -GENE9202 CFA28 GENE9206 18291502.00 -GENE9204 CFA28 GENE3313 18291502.00
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GENE3317 105321672.00 HSA10 GENE3320 105394072.00 HSA10 GENE9211 105414984.00 HSA10	GENE9208 - GENE3315 - GENE9206 -	1540.00 1546.00 1549.00	-GENE9208 -GENE3315 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9206 -GENE9208 -GENE920 -GENE920 -GENE920 -GENE920 -GENE920 -GENE920 -GENE920 -GE
GENE3318 105462792.00 HSA10 GENE9212 105591400.00 HSA10 GENE3319 105736072.00 HSA10	GENE3313 - BAC_375-M23 GENE9207 -	1556.00 1559.00 1565.00	-GENE3313 - CFA28 GENE3319 19629500.00 BAC_375-H23 - GENE9207 - CFA28 GENE13154 19756558.00 CFA28 GENE3320 19756558.00 CFA28 GENE3320 19756558.00
GENE13154 105801016.00 HSH10 GENE9214 106686200.00 HSA10 GENE3321 108002384.00 HSA10 GENE9215 111299304.00 HSA10	GENE 9210 - GENE 9210 -	1590.00 1596.00 1609.00 1618.00	-GENE9210 - CFR28 GENE9214 20526878.00 -GENE3317 - CFR28 GENE3321 21624710.00 CFR28 GENE9215 24336702.00 CFR28 GENE9215 24336702.00 CFR28 GENE9215 24386702.00
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GENE8614 GENE12593	52369688.00 HSA08	GENE8614 - GENE12593 -	94.00	- GENE8614	CFA29 GENE2717 CE029 CENE8615	6439202.00 6747946 00
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GENE2730	59459012.00 HSA08	GENE8627 -	330.00	-GENE8627	CFA29 GENE8628	12368992.00
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GENE8657	77813040.00 HSA08	GENE12603 - BOC 416-N2	1138.00	- GENE12603	CFA29 GENE2759 CEA29 CENE8657	27529996.00
GENE13130	79477592.00 HSA08	GENE2756 -	1172.00	-GENE2756	CFA29 GENE2760	27948282.00
GENE2761 GENE8658	79483184.00 HSA08 79563448.00 HSA08	GENE8655 - GENE8656 -	1183.00 1192.00	- GENE8655	CFR29 GENE8658 CFR29 GENE13130	29226504.00 29226504.00
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GENE8662 GENE2765	81626768.00 HSA08	GENE10000	1258.00	- GENE 13130	CFH29 GENE8661 CFA29 GENE8662	30393694.00
GENE2766	81945720.00 HSA08	GENE2761 -	1263.00	-GENE2761	CFR29 GENE2765	30906284.00
GENE8664	82245424.00 HSH08 82402296.00 HSA08	GENE2760 -	1277.00	-GENE20607	CFH29 GENE2766 CFA29 GENE8664	31291760.00
GENE8667	86122256.00 HSA08	GENE8662 -	1299.00	-GENE8662	CFR29 GENE2767	31647640.00
GENE2668 GENE2772	86792712.00 HSA08	GENE2764 - GENE8661 -	1324.00	-GENE2704	CFH29 GENE8667 CFR29 GENE8668	34734516.00 34956536.00
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GENE8672	88254960.00 HSA08	GENE8664 -	1437.00	-GENE8664	CFA29 GENE8671	35791352.00
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GENE8677 GENE2781	92046752.00 HSA08 92979488.00 HSA08	GENE3668 - GENE3667 -	1639.00 1674.00	- GENE8668	CFR29 GENE8676 CFR29 GENE2779	39218220.00
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GENE12606 GENE2786	95793632.00 HSH08 95809056.00 HSA08	GENE2007/ - GENE2779 -	1804.00	-GENE06//	CFR29 GENE8682 CFR29 GENE8683	42247948.00 42454576.00
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GENES686 GENE12607	97226660.00 HSA08 97275872.00 HSA08	GENE22/83 - GENE8679 -	1954.00	-GENE8679	CFH29 GENE8685 CFA29 GENE6140	43306852.00
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		GENES684 -	2023.00	-GENE8684		
		GENES6633 -	2031.00	-GENE8683		
		GENE 12607 -	2049.00	-GENE12607		
		GENE13020 GENE12607 - GENE2789 - CENE2686	2049.00 2063.00 2071.00	- GENE 126 07 - GENE 2789 - GENE 8686		
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OF NEOD 44	104670006 00 00040	CENE7099	0 00		05024	0ENE7400	0460000 0
GENE3314	104670296.00HSH10	GENEZ 099 -	0.00		CFH31	GENE7099	3163398.0
GENE11650	49355944.00 HSA03	-GENE7098 -	4.00	- GENE7098	CFA31	GENE7098	3304716.0
GENE1193	78604336.00 HSA03	BAC_381-K20	24.00	BAC_381-K20	CFA31	GENE1195	3730150.0
CENE7096	81618544 00 HC003		33.00	- GENE1195	CE031	CENE 10003	3730150 0
GENEY 050	01010044.00 115400	OF MERCENIA	44 00	OENE2014	07004	GENETZZZO	4440467
GENE1194	85905200.00 HSH03	GERESSI4 -	41.00	-GENE3314	CFH31	GENE3314	4148167.0
GENE7.097	85997816.00 HSA03	GENE12223 -	50.00	- GENE 12223	CFA31	GENE7.097	4871852.0
GENE12223	87210664.00 HSA03		65.00	- GENE7097	CFR31	GENE1194	4940967.0
CENE7098	87960464 00 HC003	GENE1194	91.00	- GENE1194	CE031	CENE11650	7575490 0
GENE 7 090	07960464.00 HSH03		407 00		CFHOI	GENETIOSO	7575450.0
GENE7.099	88110472.00 HSA03	GENE9488 -	127.00	- GENE 9488	CFA31	GENE9488	8043002.0
GENE1195	90090000.00 HSA03	GENE11650 -	140.00	- GENE11650	CFA31	GENE7/096	8820341.0
CENE9488	86695560.00 HC011		185.00	- GENE7.096	CE931	CENE2359	10475786
OENE OFFO	12010220 10 112012	P00 417 510	102 00	800 417 510	07004	0000000	
GENE2359	1/810//2.00 HSH0/	BHC_417-F12	193.00	DHC_41/-F12	CFH31	GENE1193	11516764.
GENE11408	14475410.00 HSA21	GENE2359 -	215.00	- GENE2359	CFA31	GENE11408	14151733.
GENE11409	14664830.00 HSA21		234.00	- GENE1193	CF931	GENE11409	14385340.
CENESSO4	14806575 00 HC001	GENE114.08 -	291.00	- GENE114.08	CE034	CENESSO4	14498206
GENEGOZA	14000373.00 113421		004 00	CENE 11400	OF HOL	GENESSZ4	14754502
GENE11410	15255129.00 HSH21	GENE11409 -	294.00	-GENE 114 09	CFH31	GENE11410	14754582.
GENE5525	16173550.00 HSA21	GENE5524 -	300.00	- GENE5524	CFA31	GENE5525	15634189.
GENE5526	17859216.00 HS821		310.00	- GENE11410	CE931	GENE5526	17058524.1
CENE11410	19095950 00 HC001		319.00	- GENE5525	05034	CENE11410	171654.09
GENETITIZ	10003032.00 HSH21		010.00		OF HOL	GENETITIZ	17100400.
GENE5527	18298332.00 HSA21	GENE3526 -	352.00	-GENESS26	CFR31	GENE5527	17458948.
GENE5528	21036984.00 HSA21	GENE11412 -	370.00	- GENE11412	CFA31	GENE5528	19750248.
GENE5529	21395318.00 HS921		375.00	- GENE5527	CE931	GENE11414	20215728-1
CENE11414	21576140 00 WC021		433.00	- GENE5528	05024	CENEEEDO	22010416
GENETITIT	21376140.00 HSH21		450.00		OF HOL	GENESSZS	22010410.
GENE5530	26008/10.00 HSH21	GENEII+I+ -	400.00	-GENEII+I+	CFH31	GENE5530	24185770.
GENE5533	27223484.00 HSA21	BAC_373-A14	468.00	BAC_373-A14	CFA31	GENE5533	25210768.0
GENE11419	29237016.00 HSB21		506.00	- GENE5529	CE931	GENE11419	26944352.1
OFNEEE04	20200504 00 NC004	CENESE30	541 00	CENESS30	05024	OENEEE04	07074544
GENESSS4	29300524.00 HSH21		541.00		CEHOI	GENESSS4	27074544.
GENE11420	29356044.00 HSA21	BRC_380-F20	557.00	BRC_380-F20	CFA31	GENE11420	27074544.
GENE5535	29426076.00 HSA21		561.00	- GENE5533	CFA31	GENE5535	27074544.
CENESS36	29643706 00 HC021		586.00	- GENE5534	CE031	CENESS36	27305112
GENECOCO	25040700.00 115421		500.00		OF HOL	GENEODOO	27000112.
GENE11422	29869798.00 HSH21		592.00	-GENE11419	CFH31	GENE11422	27590280.
GENE5541	30445588.00 HSA21		598.00	- GENE11420	CFA31	GENE5538	28203070.
GENE5538	30721932.00 HSA21		610.00	- GENE5536	CFR31	GENE11424	29050974.
CENESS43	30826304 00 HC021		616.00	- GENE5535	CE031	CENESS39	29564412
GENESS45	30026304.00 HSH21		640.00		CF HOI	GENEOSOS	25564412.
GENE11424	31411042.00 HSH21		619.00	-GENE11422	CFH31	GENE11425	29769828.
GENE5539	31986692.00 HSA21	GENE5538 -	625.00	- GENE5538	CFA31	GENE11426	30139690.
GENE11425	32237088.00 HC021		633.00	- GENE 11424	CE931	CENESS41	30267612
OFNEET40	00470446 00 NC004	CENEERS9	645 00	CENEE529	05004	OFNEAAAOO	00075500
GENEO049	32479416.00 HSH21		073.00		CEHOI	GENE11420	30375532.
GENE11426	32617188.00 HSA21		651.00	-GENE11425	CFA31	GENE5543	30479956.
GENE5550	32702116.00 HSA21		669.00	- GENE11426	CFA31	GENE13423	30624820.1
GENE11428	33051376 00 HC021	GENE5541	674.00	- GENE5541	CE931	GENE11430	30886936
OFNELLEL	00045476 00 00004	CENE11439	677 00	CENE11408	07004	OFNEELAE	0000000000
GENE13423	33315476.00 HSH21	GENEI11420 -	6//.00	-GENE11420	CFH31	GENE5545	30973566.
GENE11430	33537340.00 HSA21		685.00	- GENE5543	CFA31	GENE11431	31067296.
GENE5545	33641784.00 HSA21		690.00	- GENE11431	CFA31	GENE5547	31439380.
CENE11431	33734848 00 HC031	GENE11430 -	698.00	- GENE11430	CE031	CENESS48	21727214
GENELITOI	33724040.00 HSH21		740.00		OF HOL	GENESSTO	01/0/014.
GENE5547	34182608.00 HSR21		/12.00	-GENE 13423	CFR31	GENE11434	31787314.
GENE5548	34473092.00 HSA21		733.00	- GENE5545	CFA31	GENE5549	32018440.
GENE11434	34656468.00 HSA21		757.00	- GENE5547	CE931	GENE11435	32018440.
OF NEALASE	24200550 00 00001	CENESSAS	76.0 0.0	CENESS48	05024	OFNE44496	20044470
GENEL1400	34005360.00 HSH21	CENESSION CONTRACTOR	765 00	GENEGATO	OF HOL	GENETIT50	02214470.
GENE11436	35038436.00 HSH21	GENEI1434 -	765.00	-GENE11434	CFH31	GENE5550	32214470.
GENE11437	35754564.00 HSA21	-GENE5549 -	768.00	- GENE5549	CFA31	GENE11437	32845368.
GENE5554	36752956.00 HSA21		770.00	- GENE11436	CFA31	GENE5554	33835380.
CENE1144.0	27010516 00 HC021	GENE11435	773.00		05024	CENE1144.0	22022744
GENELITY O	07010010.00 H5H21	B00 075 046	707 00	500 075 046	OF HOL	GENELLITTO	00002744.
GENE11441	37533236.00 HSH21	BHC_375-016	/0/.00	DHC_375-016	CFH31	GENE11441	34409336.
GENE11442	37916872.00 HSA21		801.00	- GENE5550	CFA31	GENE11442	34840936.1
GENE11443	38545600.00 HSA21		844.00	- GENE11437	CFR31	GENE11443	35439848.
CENESS62	40039452 00 HC021		874.00	- GENE5554	CE031	GENE11446	37265344
OTHER ADDRESS	40005402.00 HSH21	CENE11440	201 00	CENE11440	07004	OCNEALAAT	002000441
GENE11446	40631272.00 HSH21		091.00	-GENE11440	CFH31	GENE11447	38544240.
GENE11447	42168796.00 HSA21	GENE11441 -	907.00	- GENE11441	CFA31	GENE5562	38674064.1
GENE11450	42806276.00 HSA21	-GENE11442 -	917.00	-GENE11442	CFA31	GENE11450	39074848.
GENESS74	42898640,00 HC021		942.00	-GENE11443	CE931	GENE11451	39307900
OFNEA44E4	42045526 00 0001	OF NEXT AND	977 00	GENE 11446	CE004	CENEEFEC	20200241
GENE11451	43045556.00 HSH21	-GEREII446 -	007.00		CFH31	GENESSON	39369344.
GENE5575	43087288.00 HSA21	BRC_381-D1	987.00	DHC_301-01	CFA31	GENE11452	39429220.
GENE5566	43187720.00 HSA21		1006.00	-GENE11447	CFA31	GENE11453	39556024.
GENE11452	43217732.00 HSA21		1019.00	-GENE5562	CE931	GENE11454	3988246.0
CENELLARO	43417584 00 40024	DENE114E1	1074 00	GENE 11451	CEO24	CENESSO	20052640
GENE11453	4341/304.00 HSH21	-GEREII431-	4077.00		CFH31	GENESSBY	39953612.
GENE5576	43527444.00 HSA21	GENESSUB -	10//.00	-GENESS66	CFA31	GENE11455	40055368.
GENE11454	43909256.00 HSA21		1085.00	-GENE11452	CFA31	GENE13425	40253796.1
GENE5569	43952756.00 HSB21		1095.00	-GENE11453	CE931	GENE13426	40390128-1
OFNEAAAFE	440704E6 00 NC004		1108 00	CENE 12425	05004	OENEEE20	40470404
GENE11400	44073156.00 HSH21	GENELIGTZO	1100.00		CEHOI	GEREOD/2	40472104.
GENE11463	44170800.00 HSA21	GENE5575	1137.00	-UER233/3	CFA31	GENE5574	40885276.
GENE13425	44328272.00 HSA21	GENE11460 -	1155.00	-GENE11460	CFA31	GENE11460	40914400.
GENE11464	44333824.00 HS821	GENE5574	1167.00	-GENE5574	CE931	GENE5575	41092396
CENESS70	44468616 00 80004		1186.00	GENE11450			
GENESS/3	17460616.00 HSH21		1000.00	OFNITE TO A			
GENE13426	44512832.00 HSA21	GENE5569	1200.00	GEREDOBY			
GENE5572	44600552.00 HSA21		1206.00	GENE11454			
GENE11465	44645296.00 HS921		1211.00	- GENE11455			
CENELLAGO	45026100 00 00001		1216 00	GENE 13426			
GENE11460	45236192.00 HSH21	GENE 13420 -	1210.00				
GENE2055	2/350116.00 HSA06		1235.00	-GERESS/2			
			1273.00	GENE5576			
			1311.00	GENE5579			
		OF NE 114462	1320 00	CENE11463			
		-GENE 11463 -	1320.00				
			1326.00	GENE11464			
		-GENE11465 -	1343.00	GENE11465			
			1386.00	GENE2055			
		3EM22/00					

RH MAP CFA32





RH MAP CFA33



RH MAP CFA34


HUMAN CONSERVED SEGMENTS

RH MAP CFA35

DOG SEQUENCE

HUMAN CONSERVED SEGMENTS

RH MAP CFA36

DOG SEQUENCE



HUMAN CONSERVED SEGMENTS

RH MAP CFA37

DOG SEQUENCE



GENE4859 42327832.00 HSA17		0.00	-GENE4859	CFR09	GENE4859	13538805.00
GENE7227 92011232.00 HSA01	-GENE11975 -	41.00	-GENE11975	CFR07	GENE6357	19260316.00
GENE498 141856320.00 HSH01	//GENE6395 -	46.00	- GENE6595	CFH38 CE938	GENE11975 CENE486	3090262.00
GENE373 155478640.00 HSA01	///_GENE488 -	50.00	-GENE488	CFA38	GENE6393	3198492.00
GENE374 155677504.00 HSA01	///GENE6393	53.00	-GENE6393	CFA38	GENE487	3198492.00
GENE6281 155792816.00 HSA01	////_GENE6394 -	55.00	-GENE6394	CFA38	GENE488	3384443.00
GENE375 155842560.00 HSH01	GENE467	60.00	- GENE489	CFH38 CFH38	GENE6394 GENE6395	3384443.00
GENE6283 156032144.00 HSA01	/////_GENE490 -	76.00	-GENE490	CFA38	GENE489	3642961.00
GENE377 156123456.00 HSA 01	//////_GENE491 -	98.00	-GENE491	CFA38	GENE490	3796855.00
GENE6284 156249056.00 HSA01	//////////////////////////////////////	133.00	- GENE492	CFA38	GENE11976	3981325.00
GENE379 156626816.00 HSA01	//////////////////////////////////////	150.00	-GENE11976	CFA38	GENE6398	4120654.00
GENE380 156784784.00 HSA01	//////////////////////////////////////	162.00	-GENE11977	CFA38	GENE492	4182449.00
GENE6287 156986656.00 HSA01		165.00	-GENE493	CFA38	GENE6399	4451737.00
GENE11940 157120912.00 HSA01	CHA ////////////////////////////////////	172.00	-GENE0401	CFA38	GENE493	4607697.00
GENE383 157315808,00 HSR01	/ ////////////////////////////////////	179.00	-GENE6400	CFA38	GENE11977	4853997.00
GENE6290 157404752.00 HSA01	////X/////////////////////////////////	181.00	-GENE6402	CFA38	GENE6401	4983480.00
GENE6291 157535168.00 HSA01	//////////////////////////////////////	194.00	-GENE495	CFA38	GENE6402	5039913.00
GENE6292 157676672.00 HSH01	GENE490	205.00	- GENE490	CFH38 CFG38	GENE495 CENE497	5039913.00
GENE387 157934640.00 HSA01	//////////////////////////////////////	222.00	-GENE6405	CFA38	GENE498	5622424.00
GENE6295 158234656.00 HSA01	//////////////////////////////////////	230.00	- GENE6357 -	CFA38	GENE6405	5622424.00
GENE11943 158286752.00 HSA01	GENE11978 -	237.00	- GENE 11978	CFA38	GENE11978	5759246.00
GENE390 158496272.00 HSA01	//////////////////////////////////////	254.00	- GENE6373	CFA38	GENE6373	5937916.00
GENE391 158819792.00 HSA01		264.00	-GENE6372	CFA38	GENE466	6039673.00
GENE6298 158868224.00 HSA01	BAC_372-C23	277.00	BAC_372-C23	CFA38	GENE6372	6227165.00
GENE6292 159008998.00 HSR01	GENE 400 -GENE 11965	422.00	- GENE 11965	CEB38	GENE11965 GENE6370	8925982.00 9315592.00
GENE393 159524224.00 HSA01	GENE6370 -	439.00	-GENE6370	CFA38	GENE463	9546240.00
GENE394 159749600.00 HSA01	BAC_381-B18	442.00	BAC_381-B18	CFA38	GENE462	11516220.00
GENE395 160228240.00 HSA01	GENE463 -	447.00	- GENE463	CFA38	GENE7227	12870766.00
GENE6302 160359664.00 HSR01	BAC_381-B23	503.00	BAC 381-B23	CEA38	GENE6428	14003979.00
GENE6303 160482560.00 HSA01	GENE7227 -	522.00	-GENE7227	CFA38	GENE6429	14553807.00
GENE398 162366720.00 HSA01	GENE6427 -	541.00 E44.00	-GENE6427	CFA38	GENE523	14854886.00
GENE6305 162557008.00 HSH01	GENE6429 -	551.00	-GENE6428	CER38	GENES24 GENE6431	15989056.00
GENE6307 162915376.00 HSA01	GENE6431 -	578.00	-GENE6431	CFA38	GENE6432	17136122.00
GENE6308 163227280.00 HSA01	BAC_375-J3	602.00	BAC_375-J3	CFA38	GENE526	17662104.00
GENE6309 163733488.00 HSH01	GENE6432 -	611.00	- GENE596	CFR38 CFR38	GENE529 GENE11985	18443000.00
GENE462 187355632.00 HSA01	M /// //_GENE529 -	631.00	-GENE529	CFA38	GENE373	19296440.00
GENE463 189609248.00 HSA01	GENE530 -	640.00	-GENE530	CFA38	GENE6281	19419514.00
GENE6370 189893856.00 HSA01	GENE524	678.00 705.00	-GENE524	CFA38	GENE374	19419514.00
GENE6372 193482992.00 HSA01	V. GENE531 -	805.00	-GENE531 -	CFA38	GENE375	19591994.00
GENE466 193826736.00 HSA 01	XXX GENE6437 -	814.00	-GENE6437 -	CFA38	GENE6283	19685654.00
GENE6373 193936448.00 HSA01	CENEG309 -	817.00	-GENE6309	CFA38	GENE6284	19741790.00
GENE11975 2005060500.00 HSH01		833.00	-GENE6308 -	CFA38	GENE6285	19972020.00
GENE6394 200872960.00 HSA01	GENE6307 -	844.00	-GENE6307 - \\\\\	CFA38	GENE379	20078868.00
GENE488 200917248.00 HSA01	GENE6306 -	853.00		CFA38	GENE380	20169226.00
GENE489 201191904-00 HSR 01	SELACOURS GENESSES	878.00	-GENE398	CFA38	GENE0207 GENE11940	20307724.00
GENE490 201364928.00 HSA 01	BAC_385-D9	897.00	BAC_385-D9	CFA38	GENE6289	20497044.00
GENE11976 201570032.00 HSA01	GENE6302 -	913.00	-GENE6302	CFA38	GENE383	20566732.00
GENE491 201606384.00 HSH01	GENESSIS -	923.00	-GENE396	CER38	GENE6290 GENE6291	20645644.00
GENE492 201775088.00 HSA01	XXXX X X X X X X X X X X X X X X X X X	926.00	-GENE394	CFA38	GENE6292	20933220.00
GENE6399 202162848.00 HSA01	GENE6298 -	945.00	-GENE6298	CFA38	GENE386	20933220.00
GENE493 202295536.00 HSH01		940.00	-GENE392	CEB38	GENES87 GENE6295	20933220.00
GENE11977 202502784.00 HSA01	//////////////////////////////////////	956.00	-GENE391	CFA38	GENE11943	21268114.00
GENE6401 202668096.00 HSA01	A A A A A A A A A A A A A A A A A A A	965.00	-GENE6296	CFA38	GENE6296	21314292.00
GENE6495 202727200.00 HSH01	GENEI1943 -	960.00	-GENE11943	CFH38 CFH38	GENES90 GENES298	21422814.00 21631276.00
GENE497 202990816.00 HSA01		973.00	-GENE6292	CFA38	GENE391	21631276.00
GENE11978 203731120.00 HSA01	() () () () () () () () () ()	982.00	-GENE6295	CFA38	GENE392	21786932.00
GENE6406 203843552.00 HSR01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	988.00	-GENESSOB	CFR38 CFR38	GENE6299 GENE393	21947412.00
GENE6428 213009088.00 HSA01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	991.00	-GENE6289	CFA38	GENE394	22431952.00
GENE6429 213428720.00 HSA 01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1000.00	-GENE6287 -////////////////////////////////////	CFA38	GENE395	22681800.00
GENE523 213735328.00 HSA01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1008.00	-GENE6285 -////////////////////////////////////	CFA38	GENE6302	22914068.00
GENE6431 215537024.00 HSA01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1022.00	-GENE6282 -///////////////////////////////////	CFA38	GENE6303	23059440.00
GENE6432 216408864.00 HSA01	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1028.00	-GENE6281 -////////////////////////////////////	CFA38	GENE398	24481924.00
GENE526 217143920.00 HSA01	(())))))))())()()()()()()()()()()()()(1034.00	GENES74 SUPPORT	CFA38	GENE6305 GENE6305	24715860.00
GENE530 218931248.00 HSA01	() () () () () () () () () () () () () (1059.00	-GENE11985 -////////////////////////////////////	CFA38	GENE6306	25011366.00
GENE6437 219799072.00 HSA01	1111114GENE375 -	1077.00	-GENE375 -////////////////////////////////////	CFA38	GENE6308	25267402.00
GENE531 219894928.00 HSA01		1085.00	-GENE377	CFA38	GENE6309	25576716.00
GENE11985 220235488.00 HSA01	\\\\\\\GENE379 -	1104.00	-GENE379	CFA38	GENE531	25576716.00 25680564.00
	\\\\\\\GENE380 -	1107.00	-GENE380 -////	CFA38	GENE6437	25787732.00
	\\\\\GENE11940 -	1114.00	-GENE11940 -	CFA38	GENE530	26452428.00
	WUNGENE387	1137.00	-GENE387			
	\\\-GENE390 -	1144.00	-GENE390 -			
	V-GENE393 -	1164.00	-GENE393			
	MGERES93 -	4494.00	- 46HE030 -			



Supplementary Information : S10

The Canine Genome: Survey Sequencing and a Dense Gene Map for Genome Navigation (Hitte et al. 2005)

Supplementary Figures : Markers order as determined by RH map and sequence assembly for each canine chromosome.

Legend

Marker order as determined by RH map and sequence assembly for the canine chromosomes. Sequences for canine chromosome markers on the RH map were aligned with the draft (CanFam1.0) by BLAST. CanFam1.0 coordinates for all markers were determined (x axis) and plotted versus the RH map marker position (y axis). When the plot is linear, it illustrates the near perfect order agreement between the two datasets. When the plot present inversion, it illustrates inverted segment between the RH map and the sequence assembly. Red dots indicated on the plot represent markers that were specifically localized on CFA by both fluorescence in situ hybridization (FISH) and RH mapping. Concordance is illustrated between the draft sequence and RH map position for all FISH mapped markers.












































































