Appendix 4.

Markers mapped for each chromosome with respective Theta and calculated distance in cR

CFA1	Theta	cR between marker	cR total
AHTH304REN			0
	0.09	9.4	
DR010004000B07			9.4
	0.088	9.2	
REN143K19			18.6
	0.119	12.6	
EST9C11			31.2
	0.029	3	
SCN1B*			34.2
	0.15	16.3	
DR010028A10F12			50.5
	0.061	6.3	
DR010029A20F08			56.8
	0.192	21.3	
RYR1			78.1
REN223C18			0
	0.07	7.2	
FH2294			7.2
	0.034	3.5	
CYP2B6			10.7
	0.1	10.6	
BAC_385_O15			21.3
	0.066	6.8	
FH2634			28.1
	0.033	3.4	
DR010022B10A09			31.5
	0.033	3.4	
DR010025A21C07			34.9
	0.032	3.3	
FH2598			38.2
	0.032	3.2	
BAC_375_N13*			41.4
	0.126	13.4	
C5R1			54.8
	0.18	19.8	
DR010015B20D06			74.6
	0.18	19.8	
FH3505			94.4
	0.063	6.5	
FH3322			100.9
	0.098	10.3	
DHDH			111.2
	0.186	20.6	
LHB			131.8
	0.392	49.8	
FH2326			181.6

MB			0
	0.323	39	
DR010023A20B07			39
	0.091	9.5	
KLK2			48.5
	0.089	9.3	
DR010023A10B03			57.8
	0.085	8.9	
DR010023B10H04			66.7
	0.082	8.6	
BAC_382_K22			75.3
	0.135	14.5	
C01_164			89.8
	0.193	21.4	
DR010028A10B06			111.2
	0.055	5.7	
REN04I24			116.9
	0.084	8.8	
REN06N11			125.7
	0.167	18.2	
REN123E09			143.9
	0.027	2.7	
FH2774			146.6
	0.081	8.4	
BAC_381_P9*			155
	0.081	8.4	
STS110D19			163.4
	0.12	12.7	
BAC_373_G6			176.1
	0.148	16	
REN211B17			192.1
	0.154	16.7	
AHT138			208.8
	0.051	5.3	
FH2793			214.1
	0.16	17.4	
FH3883			231.5
	0.107	11.3	
BAC_373_O10			242.8
	0.078	8.1	
EST16H6			250.9
	0.05	5.2	
HUEST_L33987			256.1
	0.151	16.4	
BAC_381_B2			272.5
	0.078	8.1	
BAC_372_I23			280.6
	0.081	8.4	
TJP2			289
	0.233	26.6	

DR010015A20A02			315.6
	0.416	53.8	
DR010010B10A06			369.4
DR010020A10B02			0
	0.701	120.7	
REN210H04			120.7
	0.023	2.4	
BAC_374_C5*			123.1
	0.023	2.3	
FH3598			125.4
	0.093	9.8	
FH3284			135.2
	0.024	2.4	
FH3993			137.6
	0.048	4.9	
BAC_381_P10*			142.5
	0.024	2.4	
BAC_381_N24			145
	0.12	12.8	
BAC_385_O21			157.7
	0.071	7.4	
BAC_374_I3*			165.1
	0.104	11	
AHT107			176
	0.306	36.5	
DR010026A10H01			212.5
	0.594	90.2	
DR010021B20F06			302.8
	0.148	16	
DR010005A10B03			318.8
	0.072	7.5	
BAC_381_F4			326.3
	0.048	4.9	
BAC_382_O16			331.2
	0.072	7.5	
EST4B11			338.7
	0.073	7.6	
BAC_376_F5			346.3
	0.049	5.1	
EST16B1			351.4
	0.048	5	
FH2309			356.3
	0.15	16.3	
FH3120			372.6
	0.101	10.6	
REN192P12			383.2
	0.157	17.1	
STS143C22			400.3
	0.13	13.9	
FH3894			414.2

	0.075	7.8	
FH3652*			422
	0.077	8	
EST9C2			430
	0.101	10.6	
FH2782			440.6
	0.121	12.9	
C00901			453.5
	0.098	10.3	
BAC_381_K4			463.8
	0.094	9.9	
DR010022A10H01			473.7
	0.03	3	
D01505			476.7
	0.078	8.1	
REN172C02			484.8
	0.132	14.1	
DP010005000C04			498.9
	0.078	8.1	
BAC_373_E14			507.1
	0.116	12.3	
DP050001000C09			519.4
	0.121	13	
DR010018A20C12			532.3
	0.026	2.6	
BAC_375_G8			534.9
	0.346	42.5	
CTSL			577.5
	0.422	54.9	
REN97F15			632.4
	0.076	7.9	
BAC_376_M13			640.3
	0.026	2.6	
FH3314			642.9
	0.102	10.8	
AHT117			653.6
	0.117	12.4	
DP050002000H11			666
	0.168	18.4	
BAC_381_N4			684.5
	0.152	16.5	
C01_251			701
	0.104	11	
DR010017A21F10			712
	0.074	7.7	
BAC_376_A13*			719.7
	0.075	7.8	
C01_236			727.4
	0.049	5.1	
C02509			732.5
	0.032	3.3	

REN256I19			735.8
	0.065	6.8	
PLN			742.5
	0.154	16.7	
DR010018A20B12			759.3
	0.172	18.8	
BAC_373_E21			778.1
	0.293	34.7	
FH3583			812.8
	0.096	10.1	
HUEST_M13150			822.9
	0.072	7.5	
BAC_375_G16			830.4
	0.073	7.5	
REN288J16			837.9
	0.114	12.1	
STS318L10			850
	0.102	10.8	
REN112I02			860.8
	0.076	7.9	
FH3370			868.8
	0.207	23.2	
BAC_381_F2			891.9
	0.262	30.4	
BAC_385_E7			922.3
	0.285	33.5	
ESR1			955.8
	0.234	26.7	
C01_246			982.5
	0.427	55.8	
FH3922			1038.3
	0.215	24.2	
REN162B09			1062.4
	0.047	4.8	
EST1F7			1067.2
	0.069	7.2	
FH3439			1074.4
	0.046	4.7	
EST7A6			1079.1
	0.071	7.4	
FH3300			1086.5
	0.12	12.7	
DR010013A10D05			1099.2
	0.246	28.2	
BAC_382_K5			1127.4
	0.046	4.7	
BAC_376_H19			1132.1
	0.138	14.9	
BAC_382_A13			1147
	0.213	24	
DR010024A20D07			1171

	0.246	28.2	
FH3225			1199.2
	0.199	22.2	
EST4E11*			1221.4
	0.096	10.1	
DR010005A20B12			1231.5
	0.11	11.7	
MYB			1243.2
	0.246	28.3	
RAB2			1271.5
	0.246	28.2	
DR010011A20A01			1299.7
	0.257	29.7	
BAC_380_F2			1329.3
	0.046	4.7	
C01_673			1334
	0.134	14.3	
REN307D02			1348.3
	0.087	9.1	
FH3413			1357.4
	0.108	11.4	
FH3219			1368.9
	0.065	6.7	
REN280C08			1375.6
	0.067	6.9	
BAC_376_E19			1382.5
	0.159	17.3	
DR010010A20C04			1399.8
	0.165	18.1	
REN189I14			1417.9
	0.237	27.1	
FH2313			1444.9
	0.113	11.9	
REN276B08*			1456.9
	0.1	10.6	
DR010006A10E12			1467.5
	0.129	13.8	
STS189J17			1481.3
	0.191	21.2	
DR010020A10C04			1502.5
	0.116	12.3	
DR010012A20A01			1514.8
	0.046	4.7	
BAC_376_H17			1519.5
	0.141	15.2	
EST4E10			1534.7
	0.27	31.5	
FH3603			1566.2
	0.104	11	
AHTK338			1577.2
	0.042	4.3	

FH3419			1581.5
	0.105	11.1	
BAC_375_B21			1592.6
	0.083	8.6	
FH2016			1601.3
	0.052	5.3	
BAC_376_I21			1606.6
	0.053	5.4	
REN242N13			1612
	0.431	56.4	
DR010018B20E06			1668.4
	0.256	29.6	
FH2663			1697.9
	0.152	16.5	
FH3646			1714.5
	0.061	6.3	
BAC_373_K23			1720.8
	0.075	7.8	
BAC_372_E8			1728.7
	0.181	20	
REN138G03			1748.6
	0.039	4	
BAC_381_G24			1752.6
	0.224	25.4	
BAC_385_M17			1778
	0.218	24.6	
FH3325			1802.6
	0.063	6.5	
REN303J04			1809.1
	0.086	9	
DR010013B10F09			1818.1
	0.076	7.9	
DR010012A10C09			1826
	0.181	20	
REN285G14			1846

unmapped:
DR010009B20D06 best 2-pt REN276B08*

CFA2	Theta	cR between marker	cR total	
DR010028A10D08			0	
	0.119	12.6		2.65
NPPA			12.6	
	0.09	9.4		2.77
BAC_381_H12			22	
	0.062	6.4		0.01
T1A_2			28.4	
	0.158	17.2		11.17
EST29B7			45.6	
	0.031	3.2		2.29
AHTH255REN			48.8	
	0.162	17.6		13.94
EST4D3			66.4	
	0.033	3.4		2.84
DDOST			69.8	
	0.034	3.4		3.44
EST28C5			73.2	
	0.034	3.4		2.79
FH3965			76.6	
	0.175	19.3		7.89
FH2062*			95.9	
	0.214	24.1		0.03
AHT111			120	
	0.247	28.4		4.99
DR010026A10B12			148.4	
	0.07	7.3		2.76
DR010026B10G01			155.7	
	0.072	7.5		2.76
HTR1D			163.2	
	0.107	11.4		0
C02_30			174.6	
	0.105	11		1.59
FUCA1			185.6	
	0.18	19.9		9.12
DR010028A10E07			205.5	
	0.107	11.4		3.53
C06605			216.9	
	0.279	32.7		8.15
BAC_381_P13			249.6	
	0.134	14.4		0.76
EST24E9			264	
	0.067	6.9		2.46
FH2132			270.9	
	0.227	25.7		13.81
STS188G21*			296.6	
	0.097	10.2		4.13
C02_894			306.8	
	0.102	10.7		3.07
DR010020B20D12			317.5	
	0.034	3.4		0.01

BAC_373_M16			320.9	
	0.065	6.7		1.25
EST_CFZ97733			327.6	
	0.293	34.6		15.3
DR010021B20E09			362.2	
	0.032	3.3		0.86
REN60B17*			365.5	
	0.032	3.3		3.1
FH3280			368.8	
	0.099	10.4		8.08
BAC_372_A19			379.2	
	0.128	13.7		0.32
FH3620			392.9	
	0.25	28.7		2.6
REN48A11			421.6	
	0.097	10.2		1.36
FH2608			431.8	
	0.032	3.3		2.71
REN171A19			435.1	
	0.097	10.2		3.35
FH2848			445.3	
	0.154	16.7		2.74
DR010006B20G02			462	
	0.09	9.4		0.25
DP010004000C12			471.4	
	0.062	6.4		3.29
FH3005			477.8	
	0.031	3.1		3.31
EST11D2			480.9	
	0.03	3		3.15
DR010020A20A04			483.9	
	0.088	9.2		8.08
SMN1*			493.1	
	0.14	15.1		7.09
BAC_381_E5			508.2	
	0.192	21.3		9.51
DR010016A20A08			529.5	
	0.084	8.8		4.66
DR010010B10H02			538.3	
	0.116	12.3		8.34
BAC_375_O17			550.6	
	0.03	3		0.36
REN70M14			553.6	
	0.031	3.1		3.53
EST10F1			556.7	
	0.031	3.2		0.4
FH2237			559.9	
	0.124	13.3		3.25
FH3074			573.2	
	0.158	17.2		5.03
DP010005000G05			590.4	
	0.094	9.9		2.98

REN115P05			600.3	
	0.031	3.1		0.01
BAC_376_F21			603.4	
	0.062	6.4		3.3
FH3309*			609.8	
	0.302	35.9		7.8
FH2225			645.7	
	0.477	64.8		2.3
DR010010B20E11			710.5	
EST6C1			0	
	0.026	2.6		1.5
EST27C5			2.6	
	0.026	2.6		2.84
EST11A5			5.2	
	0.158	17.1		13.07
FH2613			22.4	
	0.08	8.3		2.44
C01802			30.7	
	0.081	8.5		5.15
C02_466			39.2	
	0.08	8.3		7.92
DR010003000F08			47.5	
	0.053	5.4		2.6
FGF1			52.9	
	0.053	5.4		3.3
NR3C1			58.3	
	0.026	2.6		0.35
BAC_381_M5			60.9	
	0.158	17.1		11.29
REN107M12			78.1	
	0.052	5.3		2.45
STS105B05			83.4	
	0.103	10.8		2.42
REN150M24			94.2	
	0.103	10.8		0.57
FH2845			105.1	
	0.211	23.7		14.02
REN238G01			128.8	
	0.132	14.2		9.15
EST10C10			143	
	0.052	5.3		4.49
DR010029A20A11			148.3	
	0.132	14.2		9.35
REN303H07			162.5	
	0.18	19.8		11.91
REN95G07			182.3	
	0.031	3.1		0.05
BAC_381_C2			185.4	
	0.092	9.6		2.66
DR010024B10B12			195.1	
	0.049	5		0.39

STS63D22			200.1	
	0.025	2.5		3.01
REN44A17			202.6	
	0.048	4.9		0.37
REN280B15			207.5	
	0.096	10.1		0.03
FH3395			217.6	
	0.145	15.7		2.48
REN132G16			233.3	
	0.06	6.1		0.26
EST19A6			239.5	
	0.061	6.3		5.35
BAC_372_O15			245.7	
	0.075	7.8		8.22
CUBN			253.5	
	0.05	5.1		4.49
DR010027B20G03			258.6	
	0.214	24.1		21.19
FH2890			282.6	
	0.045	4.6		1.85
BAC_372_G11			287.3	
	0.088	9.2		3.03
BAC_373_O12			296.5	
	0.11	11.6		0.31
FH2431			308.1	
	0.198	22.1		9.84
DR010021A10C08			330.2	
	0.065	6.7		0.3
CPH7			336.9	
	0.088	9.3		7.66
BAC_373_I15			346.2	
	0.087	9.1		9.22
FH3699			355.3	
	0.126	13.4		6.95
BAC_372_I19			368.7	
	0.105	11.1		2.25
FH3433			379.9	
	0.131	14		12.04
BAC_373_A21			393.9	
	0.068	7		4.56
DR010006B20F12			400.9	
	0.143	15.4		3.33
DR010010A20C05			416.3	
	0.254	29.2		9.22
REN244F02			445.6	
	0.086	9		1.15
REN149E24			454.6	
	0.05	5.1		0.06
FH3006			459.7	
	0.097	10.2		3.02
FH3210			469.9	
	0.061	6.3		2.09

REN309A12			476.2	
	0.142	15.3		9.59
EST1F4			491.5	
	0.248	28.4		7.84
AHTH72REN			519.9	
	0.252	29.1		4.84
FH2274			549	
	0.306	36.6		3
CREM			585.6	
	0.87	204.2		26.48
C02_609			789.8	
	0.238	27.2		0.69
VIM			816.9	

CFA3	Theta	cR between marker	cR total	
PDE6B			0	
	0.079	8.2		3.26
BAC_376_N15			8.2	
	0.19	21		13.93
BAC_372_G17			29.2	
	0.096	10.1		2.66
FH2302			39.3	
	0.074	7.7		5.62
REN73P04			47	
	0.049	5		2.72
FH3259			52	
	0.073	7.5		5.5
EST10C11			59.5	
	0.073	7.5		8.73
STS181A21			67	
	0.025	2.5		2.99
FH3068			69.5	
	0.05	5.1		3.37
FH2993			74.6	
	0.099	10.5		0.29
FH3373			85.1	
	0.125	13.4		5.14
BAC_381_A16			98.5	
	0.05	5.1		2.32
FH4076			103.6	
	0.147	15.9		7.09
BAC_381_N2			119.5	
	0.255	29.4		1.13
BAC_375_A20			148.9	
	0.212	23.8		1.81
BAC_373_M7			172.7	
	0.025	2.5		0.79
FH3377*			175.2	
	0.025	2.5		3.37
REN319J10			177.7	
	0.049	5		6.3
EST15A9*			182.7	
	0.048	4.9		5.5
EST25E5			187.6	
	0.095	9.9		10.61
FH2858			197.5	
	0.07	7.3		4.92
EST15B4			204.8	
	0.116	12.3		3.03
BAC_382_A18			217.1	
	0.264	30.6		13.61
FH2316			247.7	
	0.073	7.5		1.58
REN273N19			255.2	

	0.251	28.9		12.85
CPH19			284.1	
	0.138	14.8		1.04
REN264F19			298.9	
	0.071	7.4		3
BAC_372_O21			306.3	
	0.024	2.4		0.01
CD38			308.7	
	0.048	4.9		6.79
BAC_416_H4			313.6	
	0.024	2.4		0
REN42E01			316	
	0.073	7.5		0.84
BAC_416_F4			323.5	
	0.176	19.3		9.74
DR010028A10G09			342.8	
	0.099	10.5		6.39
MYL2			353.3	
	0.149	16.1		6.59
BAC_417_L16			369.4	
	0.215	24.2		4.44
BAC_372_M23			393.6	
	0.116	12.3		0.74
AHTH219REN			405.9	
	0.071	7.4		5.62
REN47O24			413.3	
	0.047	4.8		2.87
EST7H5			418.1	
	0.071	7.4		0.92
DR010030A10D11			425.5	
	0.37	46.3		8.13
BAC_374_M15			471.8	
DR010020A10A02			0	
	0.327	39.6		
FH3464			39.6	10.88
	0.075	7.8		
SPC18			47.4	0.71
	0.074	7.6		
STS38J01			55	5.68
	0.047	4.8		
EST22B10*			59.8	5.19
	0.114	12.1		
DR010014B10H01			72	0.68
	0.196	21.8		
DR010030A10H03			93.8	2.19
	0.149	16.1		
RLBP1			110	2.17
	0.167	18.3		
FH3103			128.3	8.14
	0.141	15.2		

REN157C08			143.5	5.06
	0.165	18		
REN92B17			161.5	4
DR010014B20C05			0	
	0.181	20		1.67
EST9H2			20	
	0.14	15		7.11
AGC1			35	
	0.055	5.6		1.77
FH2980			40.6	
	0.201	22.4		16.93
REN75G13			63	
	0.052	5.3		1.88
FH2145			68.3	
	0.157	17.1		7.63
G07006			85.4	
	0.132	14.2		2.33
FH2320			99.6	
	0.089	9.4		4.5
FH2984			109	
	0.116	12.4		10.49
ZUBECA4			121.4	
	0.025	2.5		2.55
EST22A12			123.9	
	0.123	13.2		12.97
EST10C1			137.1	
	0.095	9.9		0.03
DR010020B20G08			147	
	0.223	25.2		3.91
REN02G13			172.2	
	0.286	33.7		9.56
DR010004000A10			205.9	
	0.139	15		5.49
DR010026B10F12			220.9	
	0.175	19.3		10.12
DR010018A10C12			240.2	
	0.144	15.6		9.68
DR010028B10G11			255.8	
	0.048	5		2.11
AHTH291REN			260.8	
	0.098	10.3		5.68
FH3252			271.1	
	0.074	7.7		2.59
REN233H01			278.8	
	0.097	10.3		5
FH3738*			289.1	
	0.121	12.9		7.27
CFOR26C11P			302	
	0.085	8.9		6.82
EST7D6			310.9	

	0.116	12.4		4.65
DR010007A20H11			323.3	
	0.185	20.5		10.5
FH3364			343.8	
	0.132	14.1		3.56
DP010004000E06			357.9	
	0.129	13.8		1.7
FH3040			371.7	
	0.155	16.8		4.28
C03_629			388.5	
	0.192	21.4		6.08
C00802			409.9	
	0.152	16.5		3.55
CRTL1			426.4	
STS62E17			0	
	0.094	9.9		6.33
BAC_373_K15			9.9	
	0.055	5.7		2.32
STS107N07			15.6	
	0.125	13.4		0.68
DR010005A10E07			29	
	0.211	23.7		13.11
FH2895			52.7	
	0.072	7.5		5.42
BAC_382_E9			60.2	
	0.165	18		13.08
REN161A12			78.2	
	0.124	13.2		1.74
FH2100			91.4	
	0.167	18.3		6.25
BAC_372_E15			109.7	
	0.26	30.2		17.24
DP020001000B10			139.9	
	0.094	9.9		2.66
DR010020B20F03			149.8	
	0.142	15.3		2.12
EST13E1			165.1	
	0.196	21.9		13.9
REN272A21			187	
	0.1	10.5		5.26
REN269A03			197.5	
	0.197	22		10
FH3115			219.5	
	0.408	52.5		24.8
FH3396			272	
	0.098	10.3		3.83
DR010025B10C05			282.3	
	0.081	8.4		2.11
BAC_375_N17			290.7	
	0.065	6.7		3.12

DR010022A20B04			297.4	
	0.131	14		9.13
EST_CFZ97789			311.4	

unmapped:
DR010027B20C09 best 2-pt FH3364
DR010005B20F05 best 2-pt MYL2
DR010017B20F02 best 2-pt DR010028A10G09
DR010019B20B10 best 2-pt FH3396

CFA4	Theta	cR between marker	cR total	
G07704			0	
	0.087	9.1		3.11
EST_CFZ97750			9.1	
	0.128	13.7		4.81
PEZ13			22.8	
	0.208	23.3		6.23
REN59H07			46.1	
	0.23	26.2		3.88
FH2705			72.3	
	0.222	25.2		2.72
REN215C13			97.5	
	0.076	7.9		0.23
FH3233*			105.4	
	0.113	11.9		8.47
REN262N08			117.3	
	0.036	3.7		2.64
FH2457			121	
	0.109	11.6		3.4
AHTH142REN			132.6	
	0.216	24.3		7.65
REN211H18			156.9	
	0.074	7.7		3.14
FH2472*			164.6	
	0.037	3.8		3.2
EST20D9*			168.4	
	0.036	3.7		3.44
BAC_376_F3*			172.1	
	0.035	3.6		3.19
AHT103			175.7	
	0.072	7.4		6.44
EST27E12			183.1	
	0.036	3.7		2.61
EST25H12*			186.8	
	0.168	18.3		3.09
REN126G20			205.1	
	0.512	71.7		7.45
STS303M22			276.8	
	0.286	33.7		2.84
PTGER4			310.5	
	0.077	8.1		0.05
REN144A06			318.6	
	0.222	25.1		3.12
FH2097			343.7	
	0.283	33.3		0.13
GHR			377	
	0.116	12.3		1.33
PEZ17*			389.3	
	0.037	3.8		2.96
DR010009B20D09			393.1	

	0.037	3.8		3.4
REN160J02			396.9	
	0.036	3.7		2.78
REN167B18			400.6	
	0.188	20.8		5.28
DR010008A11G12			421.4	
	0.116	12.4		0.45
BAC_373_G11*			433.8	
	0.039	3.9		2.97
REN79O09			437.7	
	0.039	3.9		0.23
FH3948			441.6	
	0.113	12		3.39
DR010022B20F08			453.6	
	0.037	3.8		0.24
FH4030			457.4	
	0.037	3.8		3.43
EST18H7			461.2	
	0.036	3.7		0.5
REN207K23			464.9	
	0.188	20.8		3.33
FST			485.7	
	0.188	20.8		0.01
BAC_376_M3			506.5	
	0.14	15		2.86
BAC_385_C17			521.5	
	0.07	7.2		3.2
DR010030B20G08			528.7	
	0.036	3.7		0.18
EST16F4			532.4	
	0.148	16		3.21
PDE6A			548.4	
	0.116	12.3		
DR010030A20E07			560.7	
	0.169	18.5		7.92
DR010015A20B02			579.2	
	0.042	4.3		2.81
FH4018			583.5	
	0.041	4.2		0.21
FH1015			587.7	
	0.12	12.8		5.6
BAC_381_I11			600.5	
	0.076	7.9		4.96
REN156O17			608.4	
	0.109	11.6		7.65
REN282C02			620	
	0.106	11.2		5.15
FH2807			631.2	
	0.072	7.4		2.66
EST11E12*			638.6	
	0.074	7.7		2.95

BAC_375_M20			646.3	
	0.238	27.2		7.13
ADRA1B			673.5	
	0.201	22.5		7.1
REN73D12			696	
	0.074	7.7		4.88
AHTH137REN*			703.7	
	0.079	8.2		0.58
EST28D5			711.9	
	0.231	26.3		5.89
REN74B13			738.2	
	0.066	6.8		0.38
C01305			745	
	0.103	10.9		7.57
STS47D07			755.9	
	0.143	15.5		6.48
BAC_375_I23			771.4	
	0.297	35.3		11.67
FH3873			806.7	
	0.309	37		1.27
DR010025B10A10			843.7	
	0.299	35.5		2.31
BAC_375_M7			879.2	
	0.12	12.8		2.35
FH2412			892	
	0.07	7.2		2.02
FH3106*			899.2	
	0.209	23.5		12.32
EST7F6			922.7	
	0.072	7.4		2.28
FH2776			930.1	
	0.153	16.6		8.76
STS189H18			946.7	
	0.23	26.1		8.54
BAC_372_M12			972.8	
	0.114	12.2		3.65
BAC_375_O3			985	
	0.269	31.3		8.24
CUN50001			1016.3	
	0.362	45		3.9
DR010030A20H09			1061.3	
	0.584	87.8		2.54
DR010007A10C09			1149.1	
	0.771	147.6		15.87
DR010017A10B06			1296.7	
	0.037	3.8		1.8
DR010022B10F09			1300.5	
	0.039	3.9		2.08
C5ORF8			1304.4	
DR010023B20D03			0	

	0.149	16.1		6.6
DR010027B20A09			16.1	
	0.139	15		7.6
BAC_99_C20CDH23			31.1	
	0.146	15.8		3.33
BAC_381_H2			46.9	
	0.262	30.4		7.17
FH2399			77.3	
	0.17	18.7		6.01
AHT120			96	
	0.04	4.1		4.51
BAC_374_G23			100.1	
	0.079	8.3		7.83
FH3310			108.4	
	0.121	12.9		7.07
BAC_381_F6			121.3	
	0.125	13.3		6.39
EST4A2			134.6	
	0.098	10.4		4.16
BAC_372_M7			145	
	0.139	15		2.72
REN171H02			160	
	0.058	6		
REN207M20			166	
	0.101	10.6		5.51
EST12B1			176.6	
	0.194	21.5		7.71
DR010011A20F01			198.1	
	0.252	29		16.06
FH2732			227.1	
	0.057	5.8		4.31
REN71L22			232.9	
	0.094	9.8		3.9
AGD			242.7	
	0.319	38.5		21.84
FH2773			281.2	
	0.064	6.6		4.66
DR010021A20D12			287.8	
	0.065	6.7		8.26
EST22H12			294.5	
	0.037	3.7		2.71
EST5C8			298.2	
	0.055	5.7		5.38
EST22H10			303.9	
	0.077	8		3.12
EST_CFZ97754			311.9	
	0.17	18.6		15.8
REN303C04			330.5	
	0.018	1.8		1.96
BAC_376_J5			332.3	
	0.191	21.2		24.03

BAC_372_C22			353.5	
	0.131	14		16.31
RYR2			367.5	
	0.063	6.5		2.01
STS148N03			374	
	0.107	11.3		3.93
REN298N18			385.3	
	0.262	30.4		22.22
BAC_381_O11			415.7	
	0.091	9.5		4.12
DR010019B10G05			425.2	
	0.124	13.2		7.02
CHRM3			438.4	
	0.487	66.8		18.13
EST9A5			505.2	

CFA5	Theta	cR between marker	cR total
BAC_372-A20			0
	0.076	7.9	
CPH14			7.9
	0.113	12	
BAC_381-J12			19.9
	0.116	12.4	
FH3837			32.3
	0.079	8.2	
BAC_375-I24			40.5
	0.274	32.1	
EST3E7			72.6
	0.265	30.8	
DR010009B10G12			103.3
	0.238	27.2	
DR010029A10C12			130.6
	0.084	8.8	
DR010023A20F05			139.3
	0.041	4.2	
REN122J03			143.5
	0.04	4.1	
BAC_381-A7			147.6
	0.079	8.2	
BAC_382-E6			155.8
	0.12	12.8	
HP*			168.6
	0.04	4.1	
DR010012B10D01			172.6
	0.079	8.2	
TAT			180.8
	0.158	17.2	
BAC_382-A2			198
	0.195	21.7	
EST26D5			219.7
	0.116	12.3	
C05.377			232
	0.076	7.9	
FH2731			240
	0.074	7.7	
FH3089			247.7
	0.038	3.8	
FH3113			251.5
	0.11	11.6	
REN68H12			263.1
	0.14	15	
FH3450			278.1
	0.309	36.9	
REN67D03			315
	0.042	4.3	
BAC_373-M12*			319.4
	0.087	9.1	

REN05D05			328.4
	0.124	13.3	
DR010005A20F07			341.7
	0.158	17.2	
EST7E5			358.9
	0.076	7.9	
BAC_374-A3			366.9
	0.113	11.9	
H270			378.8
	0.182	20.1	
AHTK315			398.9
	0.035	3.6	
K315			402.5
	0.074	7.7	
REN175P10*			410.2
	0.148	16.1	
BAC_381-H15*			426.3
	0.036	3.7	
DR010028B10F03			430
	0.074	7.7	
DR010014B10H03			437.7
	0.036	3.7	
MC1R			441.4
	0.113	12	
DR010011A10F09			453.3
	0.127	13.6	
DPEP1			466.9
	0.395	50.2	
DR010030B20D12			517.1
	0.117	12.4	
C05.414			529.5
	0.072	7.4	
FH4168*			537
	0.106	11.3	
DR010017A21F03			548.2
	0.172	18.9	
C05.771			567.1
	0.279	32.8	
DR010020A10E04			599.9
	0.21	23.5	
EST25D6			623.4
	0.101	10.6	
EST8G10			634
	0.101	10.6	
REN137C07			644.6
	0.101	10.6	
DR010019A10E10			655.2
	0.103	10.9	
FH4167			666.2
	0.034	3.5	
DIO1			669.6
	0.07	7.3	

DR010005A20A01			676.9
	0.167	18.3	
BAC_381-H6			695.2
	0.065	6.7	
BAC_375-K21			701.9
	0.101	10.6	
CPH18			712.5
	0.068	7	
FH3978			719.5
	0.068	7.1	
REN162F12			726.6
	0.172	18.9	
FH4169			745.5
	0.172	18.9	
FH3110			764.4
	0.035	3.5	
BAC_381-D16			767.9
	0.07	7.3	
REN192M20			775.2
	0.177	19.5	
FH3278			794.7
	0.189	20.9	
DP010002000F07			815.6
	0.303	36.1	
REN153H06			851.7
REN262G24			0
	0.134	14.4	
BAC_381-B17			14.4
	0.09	9.4	
DR010025A10F01			23.8
	0.044	4.5	
LEPR			28.3
	0.138	14.8	
DR010014B10D04			43.1
	0.185	20.5	
BAC_375-M3			63.6
	0.057	5.9	
C02608*			69.5
	0.046	4.7	
H006			74.2
	0.337	41	
MYO15			115.2
BAC_381-J5			0
	0.039	3.9	
DTR05.8			3.9
	0.039	3.9	
BAC_376-I11			7.9
	0.039	3.9	
EST12A10			11.8
	0.081	8.5	

DR010014B20E10			20.3
	0.167	18.2	
DR010011A10E07			38.5
	0.37	46.2	
DR010008B10C03			84.6
	0.036	3.6	
FH3702			88.3
	0.109	11.5	
MMP1			99.8
	0.072	7.5	
EST5E2			107.3
	0.106	11.2	
DR010023B20B04			118.5
	0.133	14.3	
BAC_385-K1			132.7
	0.227	25.8	
PEZ15			158.5
	0.064	6.7	
BAC_381-P15*			165.2
	0.066	6.8	
BAC_372-A22			172
	0.136	14.7	
DR010024A10E05			186.7
	0.14	15.1	
REN285I23*			201.7
	0.103	10.9	
BAC_376-O19			212.6
	0.033	3.4	
EST5F4			216
	0.096	10.1	
CRYAB			226.1
	0.062	6.4	
BAC_385-E19			232.4
	0.062	6.4	
ZUBECA6			238.8
	0.06	6.2	
BAC_381-P24			245
	0.092	9.6	
DRD2			254.6
	0.063	6.5	
REN12N03			261.1
	0.094	9.8	
DR010006B20A04			270.9
	0.06	6.2	
REN114G01			277.1
	0.03	3	
AHT141			280.1
	0.059	6.1	
BAC_382-C4			286.2
	0.086	9	
BAC_381-H8			295.2
	0.144	15.6	

CD3E			310.8
	0.229	26	
FH3320			336.7
	0.163	17.8	
BAC_373-M23*			354.5
	0.032	3.3	
G6PT1*			357.8
	0.058	6	
THY1			363.8
	0.175	19.2	
REN78M01			383
	0.029	2.9	
DR010019B20E11			385.9
	0.029	2.9	
BAC_59C2TECTA			388.8
	0.055	5.7	
REN42N13			394.5
	0.149	16.1	
BAC_382-C20			410.6
	0.12	12.8	
FH3004			423.4
	0.208	23.3	
REN51I08			446.7
	0.307	36.6	
CFOR14B05			483.4
	0.176	19.3	
EST23D1			502.7
	0.077	8	
FH2140			510.6
	0.053	5.4	
HUEST-D29618			516
	0.054	5.5	
CFOR16A10			521.5
	0.253	29.2	
REN111B12			550.7
	0.024	2.4	
REN109K18			553.1
	0.188	20.8	
AHTH248			573.9
	0.101	10.7	
REN92G21			584.6
	0.144	15.6	
FH3928			600.2
	0.042	4.3	
H218			604.5
	0.126	13.5	
REN283H21			618
	0.083	8.7	
EST23H6			626.7
	0.172	18.8	
EST11G6			645.5
	0.107	11.3	

DR010024B20B10			656.9
	0.061	6.2	
DR010021B20A05			663.1
	0.134	14.4	
BAC_372-C9			677.5
	0.04	4	
AHTH68REN			681.5
	0.403	51.6	
DR010006A20H12			733.1

CFA6	Theta	cR between marker	cR total
EST15F11			0
	0.073	7.5	
RPE65			7.5
	0.036	3.6	
REN111L07*			11.1
	0.073	7.5	
BAC_373_O2			18.6
	0.037	3.7	
DR010027B10D08			22.3
	0.038	3.8	
BAC_375_J1			26.1
	0.077	8	
BAC_381_I21			34.1
	0.161	17.6	
EST7A10			51.7
	0.04	4.1	
EST3C10*			55.8
	0.04	4.1	
DR010030A20E05			59.9
	0.231	26.3	
DR010027A10D07			86.2
	0.35	43.1	
UOX			129.3
	0.04	4.1	
DR010026B10D10			133.4
	0.079	8.2	
REN65K24*			141.6
	0.038	3.8	
DR010015A10A07			145.4
	0.038	3.8	
BAC_381_G15			149.2
	0.038	3.8	
EST12C9*			153
	0.038	3.8	
EST4F11			156.8
	0.074	7.7	
G02702			164.5
	0.312	37.4	
BAC_375_K3*			201.9
	0.077	8	
BAC_375_F13*			209.9
	0.077	8	
VCAM1			217.9
	0.075	7.8	
FH3246			225.7
	0.073	7.5	
FH2119			233.2
	0.139	15	
DR010012B20E10			248.2

	0.103	10.8	
DR010021A10G11			259
	0.035	3.5	
DR010020A10A07			262.5
	0.035	3.5	
CFOR28H03*			266
	0.071	7.3	
FH3282			273.3
	0.071	7.3	
EST14G8			280.6
	0.182	20	
AHTH228REN			300.6
	0.143	15.4	
BAC_PKD1			316
	0.177	19.5	
LEI_2A11			335.5
	0.108	11.4	
CFOR08A10P			346.9
DR010008B10E04			0
	0.386	48.8	
DR010005B10D01			48.8
	0.528	75.1	
BAC_373_O17			123.9
	0.037	3.7	
FH2164			127.6
	0.072	7.5	
REN47F06			135.1
	0.035	3.5	
FH3084			138.6
	0.105	11.1	
REN54C11			149.7
	0.177	19.5	
REN88M24			169.2
	0.071	7.3	
REN84K01			176.5
	0.037	3.7	
FH3098			180.2
	0.036	3.7	
REN149M14			183.9
	0.047	4.8	
STS218J14			188.7
	0.093	9.8	
EST19A1			198.5
	0.244	27.9	
UMOD			226.4
	0.034	3.5	
BAC_376_P9			229.9
	0.035	3.5	
BAC_375_C17*			233.4
	0.035	3.5	

FH2956			236.9
	0.035	3.5	
BAC_374_E15*			240.4
	0.071	7.3	
EST17H7*			247.7
	0.105	11.1	
EST16D9			258.8
	0.276	32.3	
FH2832			291.1
	0.076	7.9	
GTF3C1			299
	0.113	11.9	
REN210I14			310.9
	0.093	9.7	
CLN3			320.6
	0.063	6.5	
EST26C11			327.1
	0.066	6.8	
DR010006A10F06			333.9
	0.045	4.6	
CD19			338.5
	0.089	9.3	
ALDOA			347.8
	0.064	6.6	
FH2734			354.4
	0.135	14.5	
AHT109			368.9
	0.199	22.2	
EST24B4			391.1
	0.03	3.1	
BAC_385_G5			394.2
	0.123	13.1	
SULT1A1			407.3
	0.314	37.7	
COS6			445
	0.173	19	
REN172A18			464
	0.244	28	
BAC_381_P18			492
	0.073	7.6	
DR010028B20F06			499.6
	0.097	10.2	
FH2561			509.8
	0.072	7.5	
BAC_372_C5			517.3
	0.192	21.4	
REN88F13			538.7
	0.239	27.3	
DR010027B20F11			566
	1	916.5	
DR010009A20D03			1482.5

	1	916.5	
EPO			2399
	0.21	23.6	
DR010009A10B12			2422.6
	0.224	25.3	
CYP3A			2447.9
	0.137	14.7	
DR010030B20H04			2462.6
	0.186	20.5	
REN206A12			2483.1
	0.092	9.7	
CFOR08C09			2492.8
	0.087	9.1	
BAC_372_O10			2501.9
	0.087	9.1	
BAC_382_E21			2511
	0.219	24.7	
FH2576			2535.7
	0.21	23.5	
ZP3			2559.2
	0.126	13.5	
HSPB1			2572.7
	0.288	34	
AHTH171			2606.7
	0.196	21.8	
BAC_375_E2			2628.5
	0.31	37.1	
FH2525			2665.6
	0.097	10.2	
FH3295			2675.8
	0.038	3.8	
REN146A06			2679.6
	0.318	38.3	
FH2752			2717.9
	0.075	7.8	
REN285H12			2725.7
	0.251	28.9	
GUSB			2754.6

unmapped:
DR010013B20H06 best 2-pt BAC_375_C17*.

CFA7	Theta	cR between marker	cR total
AHTH71REN			0
	0.038	3.8	
FH3086			3.8
	0.113	12	
FH2973			15.8
	0.178	19.6	
REN185B22			35.4
	0.178	19.6	
BAC_385_K23			55
	0.189	21	
REN116E14			76
	0.144	15.6	
REN109O15			91.6
	0.35	43.1	
FH3042			134.7
	0.072	7.5	
EST27B1			142.2
	0.074	7.7	
EST28E1*			149.9
	0.047	4.8	
RAB12			154.7
	0.144	15.6	
DR010028A20D11			170.3
	0.224	25.3	
DR010030B10F02			195.6
	0.28	32.9	
REN193B22*			228.5
	0.034	3.4	
STS168J14			231.9
	0.035	3.5	
BAC_375_I20*			235.4
	0.07	7.2	
BAC_375_C14			242.6
	0.178	19.5	
BAC_381_G9			262.1
	0.074	7.7	
FH2860			269.8
	0.079	8.2	
C07_767			278
	0.121	12.9	
DLGAP1			290.9
	0.231	26.3	
BAC_382_C5			317.2
	0.183	20.3	
HMCS			337.5
	0.136	14.6	
REN97N23			352.1
	0.329	39.9	
C01207			392

	0.07	7.3	
EST7C7			399.3
	0.036	3.6	
LAMA3			402.9
	0.034	3.5	
REN143L20			406.4
	0.068	7.1	
DR010013A10E04			413.5
	0.07	7.3	
EST12G5			420.8
	0.106	11.2	
REN244L05			432
	0.183	20.2	
EST19C3			452.2
	0.113	12	
EST8F2*			464.2
	0.074	7.7	
FH2581			471.9
	0.091	9.6	
LPIN2			481.5
	0.091	9.6	
STS52C24			491.1
	0.144	15.5	
BAC_376_O23			506.6
	0.051	5.2	
REN02D20			511.8
	0.138	14.9	
REN119H22			526.7
	0.224	25.4	
REN205D19			552.1
	0.202	22.6	
DR010005A10D01			574.7
	0.041	4.2	
DR010023A10H01			578.9
	0.079	8.2	
REN128D24			587.1
	0.038	3.9	
BAC_380_B2*			591
	0.039	4	
BAC_376_P11*			595
	0.154	16.7	
FH3970			611.7
	0.039	3.9	
DR010017A21B03			615.6
	0.076	8	
EST7B12			623.6
	0.038	3.8	
EST10D10*			627.4
	0.079	8.2	
EST7G2			635.6
	0.121	12.9	

LMNA			648.5
	0.196	21.8	
BAC_374_G11			670.3
	0.159	17.3	
DR010021A20F05			687.6
CDH2			0
	0.039	3.9	
FH2201			3.9
	0.152	16.5	
DSC2*			20.4
	0.037	3.8	
EST19B9			24.2
	0.079	8.2	
BAC_376_E13			32.4
	0.124	13.3	
BAC_381_A22			45.7
REN185D01			0
	0.033	3.4	
BAC_381_M23*			3.4
	0.033	3.4	
BAC_375_C3			6.8
	0.069	7.2	
DP020001000F01			13.9
	0.143	15.4	
STS86N15			29.3
EST8G4			0
	0.093	9.7	
SELP			9.7
	0.123	13.1	
BAC_372_O16			22.8
	0.061	6.3	
FH2651			29.1
	0.089	9.3	
LEI_1B10			38.4
	0.085	8.9	
REN120L12			47.3
	0.028	2.8	
FH2174			50.1
	0.033	3.4	
REN69B24			53.5
	0.135	14.5	
REN286O18			68
	0.027	2.8	
BAC_375_B15*			70.8
	0.055	5.7	
BAC_381_B6			76.5
	0.111	11.8	
C07_620			88.3

	0.054	5.6	
BAC_374_C17			93.9
	0.027	2.7	
REN04J02			96.6
	0.027	2.7	
SELE			99.3
	0.026	2.7	
BAC_374_O7*			102
	0.052	5.4	
REN99O20			107.4
	0.08	8.3	
E04402			115.7
	0.105	11.1	
BAC_382_C16			126.8
	0.135	14.6	
EST24G8*			141.4
	0.028	2.8	
REN304I05			144.2
	0.027	2.8	
EST27B6			147
	0.027	2.7	
REN162C04*			149.7
	0.141	15.1	
DP050002000B02			164.8
	0.153	16.6	
BAC_376_E5			181.4
	0.19	21.1	
DR010024B10D07			202.5
	0.31	37.1	
BAC_373_K8			239.6
	0.077	8.1	
EST12H5			247.7
	0.039	3.9	
BAC_373_K11			251.6
	0.058	6	
BAC_381_A13			257.6
	0.171	18.8	
BAC_385_F23			276.4
	0.041	4.2	
PDC			280.6
	0.04	4.1	
EST6E7*			284.7
	0.053	5.5	
BAC_385_H21			290.2
	0.054	5.6	
LAMC2			295.8
	0.053	5.5	
EST1A10			301.3
	0.026	2.6	
BAC_381_D21			303.9
	0.133	14.3	

FH2917			318.2
	0.235	26.8	
DR010020B20B01			345
	0.089	9.3	
DR010024A20F08			354.3
	0.056	5.8	
VIASD10			360.1
	0.194	21.6	
DR010028B20B10			381.7
	0.174	19.1	
CENPF			400.8
	0.107	11.3	
REN319J07			412.1
	0.118	12.6	
DR010022A10C06			424.7
	0.024	2.4	
FH3972			427.1
	0.094	9.8	
FH1031			436.9
	0.069	7.1	
REN314O07			444
	0.022	2.2	
BAC_373_C9			446.2
	0.108	11.4	
CPH20			457.6
	0.639	101.8	
AHTH289REN			559.4
	0.193	21.5	
EST10B11			580.9
	0.223	25.2	
RPL17_L23			606.1
	0.256	29.5	
STS96K13			635.6
	0.038	3.9	
CSRP1			639.5
	0.158	17.1	
REN97M11			656.6
	0.236	27	
REN211A02			683.6
	0.266	30.9	
BAC_372_A3			714.5
	0.021	2.1	
EST4C7			716.6
	0.108	11.4	
FH2226			728
	0.163	17.8	
IL10			745.8
	0.171	18.8	
CD34			764.6
	0.16	17.4	
LAMB3			782

	0.209	23.5	
DR010007B10A08			805.5
	0.389	49.2	
REN200G14			854.7

CFA8	Theta	cR between marker	cR total
IGHE			0
	0.245	28.1	
IGHA1			28.1
	0.067	6.9	
EST22G10			35
	0.092	9.6	
DR010005A10G10			44.6
	0.06	6.2	
BAC_381_O14			50.8
	0.116	12.3	
COS8			63.2
	0.189	20.9	
FH2989			84.1
	0.066	6.8	
FH2724			90.9
	0.066	6.8	
REN143P19			97.8
	0.113	12	
C08_618			109.8
	0.046	4.8	
EST_CFZ97778			114.5
	0.061	6.3	
REN148E17			120.8
	0.03	3	
BAC_372_I22			123.9
	0.045	4.6	
FH2726			128.5
	0.112	11.9	
BAC_375_A3			140.3
	0.159	17.3	
DR010023A20F11			157.6
	0.11	11.6	
EST13B3			169.3
	0.087	9.1	
REN196F07			178.4
	0.022	2.3	
BAC_376_D9			180.7
	0.069	7.1	
BAC_372_M6			187.8
	0.137	14.7	
BAC_381_G22			202.5
	0.066	6.8	
BAC_385_J17			209.3
	0.109	11.6	
FH3266			220.8
	0.109	11.5	
BAC_374_O13			232.3
	0.044	4.5	
REN178J05			236.8

	0.212	23.8	
TSHR			260.6
	0.219	24.7	
REN108A18			285.3
	0.047	4.8	
DR010018A20A10			290
	0.046	4.7	
DR010006A20B09			294.7
	0.045	4.6	
DR010024B10C03			299.4
	0.045	4.6	
EST27B2			304
	0.068	7	
EST27E3			311
	0.067	6.9	
REN288F11			317.9
	0.124	13.3	
DR010017A10B01			331.2
	0.139	15	
DR010012B10G08			346.2
	0.165	18	
DR010027B10E05			364.2
	0.049	5.1	
BAC_373_E9			369.3
	0.045	4.6	
REN268I01			373.9
	0.023	2.3	
BAC_382_G3			376.2
	0.069	7.1	
REN105N22			383.2
	0.069	7.1	
FH3330			390.3
	0.116	12.4	
REN206K11			402.7
	0.071	7.3	
FH2144*			410
	0.142	15.4	
REN95G20			425.4
	0.07	7.3	
EST23F7			432.6
	0.068	7	
EST20A5			439.7
	0.067	6.9	
REN68M10			446.6
	0.066	6.8	
FH3653			453.4
	0.112	11.8	
DR010022B10G11/DR010003000D01			465.2
	0.112	11.8	
EST1C10*			477.1
	0.044	4.5	

BAC_374_O17			481.5
	0.044	4.5	
EST11F6			486
	0.022	2.2	
DR010029B10D06			488.2
	0.067	6.9	
C08_410			495.1
	0.111	11.7	
BMP4			506.8
	0.064	6.7	
UOR4101			513.5
	0.088	9.2	
LEI034			522.7
	0.087	9.1	
EST17C3			531.7
	0.183	20.2	
DR010006B10H02			551.9
	0.242	27.7	
LGALS3			579.6
	0.127	13.6	
EST22E10			593.2
	0.064	6.6	
FH4003			599.8
	0.13	13.9	
BAC_376_O21			613.7
	0.135	14.6	
BAC_380_D2			628.3
	0.068	7	
EST14D9			635.3
	0.068	7	
FH3425			642.3
	0.133	14.3	
BAC_373_A3			656.6
	0.129	13.9	
FH3218*			670.5
	0.021	2.2	
EST4D10*			672.6
	0.022	2.2	
EST6D10			674.8
	0.103	10.8	
REN67O13			685.7
	0.05	5.2	
EST4G1			690.8
	0.084	8.8	
BAC_373_C17			699.7
	0.306	36.6	
NFKBIA			736.2
	0.119	12.7	
SRP54			748.9
	0.022	2.2	
EST14A7			751.1

	0.044	4.5	
CPH12			755.6
	0.085	8.9	
REN204K13			764.5
	0.182	20.1	
E04007			784.6
	0.184	20.3	
REN248C05			804.9
	0.227	25.8	
CMA1			830.7
	0.153	16.7	
AHTH240REN			847.4
	0.091	9.6	
TGM1			857
	0.086	9	
EST22B7			866
	0.047	4.8	
MYH7			870.8
	0.243	27.9	
MMP14			898.6
	0.427	55.7	
DR010005B10H06			954.3
	0.162	17.6	
FH3241			971.9
	0.193	21.5	
CFOR12G07			993.4

unmapped:
DR010028A10B04 best 2-pt EST27E3
DR010001000D10 best 2-pt EST17C3
DR010022A20C04 best 2-pt FH3241

CFA9	Theta	cR between marker	cR total
DR010010B20E05			0
	0.288	34	
GGTA1			34
	0.063	6.5	
BAC_372_I12			40.5
	0.037	3.8	
CFOR08A09			44.3
	0.146	15.7	
REN287G01			60
	0.117	12.5	
DR010028B10C02			72.5
	0.061	6.3	
AHTH183REN*			78.8
	0.093	9.8	
FH2885			88.6
	0.091	9.5	
EST1A7			98.1
	0.091	9.5	
DP010004000E02			107.6
	0.03	3.1	
EST_CFZ97756			110.7
	0.03	3.1	
SPTAN1			113.8
	0.145	15.7	
E04008			129.5
	0.076	7.9	
DR010012B10B09			137.4
	0.103	10.9	
FS			148.3
DR010019B10C03			0
	0.149	16.1	
TSC1			16.1
	0.16	17.5	
REN73K24			33.6
	0.1	10.6	
REN114M08			44.2
	0.119	12.7	
EST13H5			56.9
	0.122	13	
STS120D19			69.9
	0.095	9.9	
REN177B24			79.8
	0.032	3.3	
LEI_2D2			83.1
	0.095	9.9	
EST4A10			93
	0.293	34.7	
DR010023B20A07			127.7

	0.228	25.9	
DR010028B10F08			153.6
DR010024B10G11			0
	0.244	27.9	
STS1B05			27.9
	0.123	13.1	
EST20A3			41
	0.05	5.1	
REN256F13			46.1
	0.116	12.4	
CFOR08H10			58.5
	0.088	9.2	
DTMT			67.7
	0.132	14.1	
EST27D2*			81.8
	0.134	14.3	
CRYBA1			96.2
	0.181	20	
FH3235			116.1
	0.153	16.6	
ALDOC*			132.8
	0.079	8.2	
BAC_374_O11			141
	0.078	8.1	
FH3835			149.2
	0.129	13.9	
NF1			163
	0.025	2.5	
REN42F01			165.6
	0.221	25	
BAC_372_C21			190.6
	0.081	8.5	
CCL2			199
	0.063	6.5	
REN145P07			205.6
	0.103	10.9	
C09_474			216.4
	0.066	6.8	
BAC_385_O5			223.3
	0.129	13.8	
FH2722			237.1
	0.072	7.5	
FH2846			244.6
	0.123	13.1	
REN65C02			257.7
	0.067	6.9	
DT_1314			264.6
	0.022	2.3	
EST9A7			266.9
	0.178	19.6	

EST5A6			286.5
	0.129	13.8	
DR010020B11H06			300.3
	0.133	14.2	
MPO			314.5
	0.222	25.1	
BAC_372_K12			339.6
	0.09	9.4	
FH2186*			349
	0.047	4.8	
FH2248			353.8
	0.143	15.4	
BAC_381_K1			369.2
	0.093	9.8	
BAC_372_O23			379
	0.09	9.5	
BAC_375_B19			388.5
	0.022	2.2	
REN158J11			390.7
	0.066	6.8	
BAC_372_K17			397.5
	0.131	14.1	
FH4059			411.6
	0.065	6.7	
REN126A15			418.3
	0.175	19.2	
STS1A01			437.5
	0.074	7.7	
EST12G4			445.1
	0.036	3.7	
EST26E1			448.8
	0.067	6.9	
GNGT2			455.7
	0.106	11.2	
REN206J15			466.9
	0.021	2.1	
G06401			469.1
	0.084	8.7	
HUEST_D29228			477.8
	0.063	6.5	
BAC_373_O24*			484.3
	0.079	8.2	
REN75M10			492.5
	0.163	17.8	
ZUBECA3			510.3
	0.088	9.3	
ERBB2			519.5
	0.022	2.2	
RARA*			521.7
	0.044	4.4	
BAC_375_K14*			526.1

	0.022	2.2	
GAS			528.4
	0.065	6.8	
KRT9			535.1
	0.126	13.4	
REN144L19			548.6
	0.223	25.3	
REN54L20			573.8
	0.106	11.2	
STS1A05*			585
	0.043	4.4	
EST16C5			589.4
	0.044	4.5	
DR010022B20G01			593.9
	0.109	11.5	
BRCA1			605.4
	0.131	14.1	
FH1014			619.4
	0.11	11.6	
STS171C13			631
	0.158	17.3	
RAB5C			648.3
	0.309	36.9	
DR010022B20C10			685.2
	0.234	26.7	
FH2700			711.9
	0.09	9.4	
BAC_375_C24			721.3
	0.068	7	
COL1A1			728.2
	0.148	16	
DR010008B20H11			744.2
DR010022B20C05			0
	0.229	26	
APOH			26
	0.158	17.2	
STS1B10			43.2
	0.019	1.9	
BAC_372_G15			45.1
	0.058	5.9	
FH3596			51.1
	0.151	16.4	
REN198P23			67.5
	0.111	11.8	
C09_173			79.3
	0.076	7.9	
DR010005A20C06			87.2
	0.142	15.3	
KCNJ2			102.5
	0.301	35.8	

DR010029A20E01			138.4
	0.197	21.9	
FH2263			160.3
	0.062	6.4	
GH1			166.7
	0.076	7.9	
DDX5			174.6
	0.076	7.9	
DR010026B10C04			182.5
	0.057	5.9	
BAC_374_C19			188.4
	0.019	1.9	
C03304			190.3
	0.075	7.8	
BAC_376_F17			198.1
	0.019	1.9	
EST17G11			200
	0.075	7.8	
MYL4			207.7

unmapped:
DR010011B10G11 best 2-pt MYL4
DP030001000E12 best 2-pt MYL4
DR010028B10E06 best 2-pt NF1

CFA10	Theta	cR between marker	cR total
FH3381			0
	0.083	8.6	
DR010004000G05			8.6
	0.08	8.3	
EST14F9			16.9
	0.11	11.7	
DR010027B10C06			28.6
	0.145	15.7	
REN154O19			44.3
	0.038	3.9	
EST7F4			48.2
	0.19	21.1	
C10_602			69.3
	0.11	11.7	
DR010018B10E11			81
	0.073	7.5	
EST6F7			88.5
	0.075	7.8	
C04107			96.3
	0.038	3.9	
BAC_381_N23			100.2
	0.038	3.9	
BAC_376_D21			104.1
	0.039	4	
REN161L12			108.1
	0.118	12.5	
BAC_380_D4			120.6
	0.114	12.1	
DTR10_5			132.7
	0.111	11.7	
BAC_372_O19			144.4
	0.047	4.8	
FH2665			149.2
	0.096	10.1	
EST10G6			159.3
	0.229	26	
BAC_382_M13			185.3
	0.112	11.9	
EST26H8			197.2
	0.23	26.1	
FH3448			223.3
	0.259	29.9	
BAC_375_M10*			253.2
	0.114	12.1	
EST18H1			265.3
	0.16	17.4	
FSHR			282.7
DR010018B20H11			0
	0.098	10.3	

EST18E2			10.3
	0.086	9	
ZUBECA1			19.3
	0.034	3.4	
REN73F08			22.7
	0.22	24.8	
REN50P09			47.6
	0.153	16.6	
REN150B12			64.1
	0.066	6.8	
DR010010B20B02			70.9
	0.034	3.4	
EST13G10			74.3
	0.067	7	
BAC_376_G3			81.3
	0.095	10	
BAC_382_M2			91.3
	0.045	4.6	
BAC_382_K23			95.9
	0.044	4.5	
STS310M20			100.4
	0.089	9.3	
BAC_381_F11*			109.7
	0.129	13.8	
FH3403			123.6
	0.262	30.4	
DR010010B20E08			153.9
	0.22	24.8	
STS305E23			178.8
	0.181	20	
FH3055			198.8
	0.089	9.3	
EST8H11			208.1
	0.06	6.2	
BAC_381_I4*			214.3
	0.205	22.9	
DR010018B10E02			237.2
	0.333	40.5	
BAC_373_O16			277.7
	0.209	23.4	
DR010028A20H05			301.1
	0.078	8.1	
BAC_381_A8			309.2
	0.233	26.5	
C10_606			335.6
	0.053	5.5	
LYZ			341.1
	0.345	42.2	
MDM2			383.4
	0.399	50.9	
DGN8			434.3
	0.197	22	

C10_781			456.3
	0.047	4.9	
REN276F23			461.1
	0.122	13	
AHT110			474.1
	0.285	33.5	
DP010005000G03			507.6
	0.417	54	
DR010030A20C11			561.6
	0.185	20.4	
STS79I13			582
	0.055	5.6	
RVC8			587.6
	0.102	10.7	
REN06H21			598.3
	0.068	7.1	
DR010014B10B10			605.4
FH3921			0
	0.132	14.2	
FH4081			14.2
	0.145	15.7	
DR010019B10H01			29.9
	0.083	8.6	
EST11H10			38.5
	0.096	10.1	
DR010018A20D10			48.6
	0.172	18.8	
REN171O24			67.4
	0.127	13.6	
DR010022B10H08			81
	0.023	2.4	
EST12E5			83.4
	0.302	36	
DR010029A10A01			119.4
	0.135	14.5	
AHTH181REN			133.9
	0.095	10	
ATP5B			143.9
	0.187	20.7	
FH2537			164.6
	0.1	10.5	
EST8E12			175.1
	0.096	10.1	
BAC_376_O17			185.2
	0.092	9.7	
CFOR16F03			194.9

unmapped:
DR010017B10H05 best 2-pt BAC_373_O16
DR010005A20G01 best 2-pt BAC_381_I4*
DR010007B20E09 best 2-pt STS305E23

CFA11	Theta	cR between marker	cR total
DGN13			0
	0.191	21.2	
AHTH155REN*			21.2
	0.089	9.4	
LEI001			30.6
	0.045	4.6	
FH3065			35.2
	0.045	4.6	
BAC_381-F14			39.8
	0.138	14.8	
DTR11.4			54.6
	0.163	17.8	
REN174D18			72.4
	0.121	12.9	
C11.873			85.3
	0.256	29.6	
BAC_375-G21			114.9
	0.142	15.4	
BAC_373-M14			130.3
	0.114	12.1	
EST15E10			142.4
	0.046	4.7	
DR010013B10F10			147.1
	0.124	13.3	
CFOR10D04			160.4
	0.197	21.9	
REN147O02			182.3
	0.022	2.2	
REN277K01			184.5
	0.025	2.5	
BAC_382-G7			187
	0.13	13.9	
REN249L05			200.9
	0.089	9.3	
DP030002000A07			210.2
	0.09	9.4	
FH3724			219.6
	0.135	14.5	
FH3238			234.1
	0.177	19.5	
FH2019			253.6
	0.065	6.7	
FH3900			260.3
	0.224	25.4	
REN182P10			285.7
	0.209	23.5	
BAC_385-O3			309.2
	0.045	4.6	
DR010023B10D05			313.8
	0.293	34.6	

DR010017A21H09			348.4
	0.192	21.3	
EST18E5			369.7
	0.132	14.1	
BAC_381-H22			383.8
	0.109	11.6	
STS311A00			395.4
	0.088	9.2	
C11.868			404.6
	0.084	8.8	
EST17E6			413.4
	0.076	7.9	
FH2880			421.3
	0.052	5.4	
BAC_376-M15			426.7
	0.044	4.5	
REN174P22			431.2
	0.139	14.9	
FH3393			446.1
	0.318	38.2	
IFNA2			484.3
	0.03	3	
FH2706			487.3
	0.039	3.9	
IFNA1			491.2
	0.093	9.8	
IFNA3			501
	0.08	8.3	
IFNW1			509.3
	0.071	7.4	
DR010006A10C01			516.7
	0.209	23.4	
REN161D14			540.1
	0.043	4.4	
BAC_381-N5			544.5
	0.064	6.6	
BAC_381-N7			551.1
	0.109	11.6	
FH2982			562.7
	0.044	4.5	
BAC_375-B3			567.2
	0.133	14.3	
REN245N06			581.5
	0.066	6.9	
EST24D12			588.4
	0.065	6.8	
TYRP1			595.2
	0.047	4.8	
EST12E1*			600
	0.234	26.7	
FH3319			626.7
	0.074	7.7	

FH2874			634.4
	0.111	11.7	
FH2710			646.1
	0.133	14.3	
BAC_372-K9			660.4
	0.111	11.8	
BAC_375-K7			672.2
	0.022	2.3	
BAC_372-O3			674.5
	0.111	11.7	
BAC_373-E16			686.2
	0.135	14.5	
FH2004			700.7
	0.142	15.3	
REN57H24			716
	0.371	46.3	
DR010001000H12			762.3
	0.608	93.6	
DR010026A20F07			855.9
	0.398	50.8	
DR010023B20H09			906.7
	0.073	7.6	
EST5E10			914.3
	0.111	11.7	
C02712			926
	0.256	29.6	
REN142O09			955.6
	0.085	8.9	
STS110F20			964.5
	0.223	25.3	
EST15D6			989.8
	0.329	39.9	
REN89J24			1029.7
	0.217	24.5	
EST11G12			1054.2
	0.021	2.2	
BAC_375-F21			1056.4
	0.088	9.2	
IL13			1065.6
	0.349	42.9	
BAC_385-C1			1108.5
	0.068	7	
REN54C20			1115.5
	0.067	6.9	
DR010016A20H01			1122.4
	0.089	9.3	
STS41D02			1131.7
	0.181	20	
EST1G9			1151.7
	0.092	9.7	
REN242K04			1161.4
	0.136	14.7	

FH3952			1176.1
	0.022	2.2	
FH2760			1178.3
	0.086	9	
REN296A21			1187.3
	0.237	27.1	
EST27E10			1214.4
	0.234	26.7	
REN286P10			1241.1
	0.084	8.8	
REN93F10			1249.9
	0.13	13.9	
FH2096			1263.8
	0.14	15	
EST14G5			1278.8
	0.246	28.2	
FH4031			1307
	0.194	21.5	
STS154L15			1328.5
	0.267	31.1	
REN207M19			1359.6
	0.075	7.8	
BAC_381-I20			1367.4
	0.037	3.7	
FH2894			1371.1
	0.073	7.6	
BAC_373-A20			1378.7
	0.202	22.5	
FH3288			1401.2
	0.236	26.9	
FH3203			1428.1
	0.431	56.4	
DR010028B20E07			1484.5
	0.356	43.9	
REN181F15			1528.4
	0.102	10.8	
EST20G11			1539.2
	0.034	3.4	
BAC_373-I1			1542.6
	0.057	5.9	
BAC_373-G8			1548.5
	0.057	5.9	
REN161P13			1554.4
	0.129	13.8	
BAC_372-C10			1568.2
	0.109	11.5	
BAC_376-H9			1579.7
	0.054	5.6	
BAC_376-I17			1585.3
	0.065	6.7	
PROP1*			1592
	0.05	5.1	

CANX			1597.1
	0.098	10.4	
DR010016A10H09			1607.5
	0.094	9.9	
AHTH279			1617.4
	0.192	21.3	
DR010026A20B10			1638.7
	0.32	38.5	
DR010025A21E10			1677.2
	0.194	21.5	
DR010021A20G12			1698.7
	0.396	50.4	
REN164B05			1749.1

unmapped:
DP020002000C01 best 2-pt REN286P10
DR010020A20A05 best 2-pt BAC_382-G7

CFA12	Theta	cR between marker	cR total
DR010022A20A01			0
	0.391	49.5	
DR010017B20B06			49.5
	0.198	22	
DP020001000C01			71.5
	0.043	4.4	
C12_406			75.9
	0.064	6.7	
BAC_382_G21*			82.6
	0.192	21.4	
TBP			104
	0.064	6.6	
REN234K01*			110.6
	0.021	2.2	
REN194D11*			112.8
	0.132	14.2	
EST20D5			127
	0.091	9.6	
DR010030A10F11			136.6
	0.091	9.6	
EST16E7*			146.2
	0.022	2.2	
FH3116			148.4
	0.022	2.2	
BAC_373_M4			150.6
	0.088	9.2	
REN260I06			159.8
	0.127	13.6	
BAC_372_I13			173.4
	0.17	18.6	
FH2347			192
FH3748			0
	0.083	8.7	
BAC_381_G14*			8.7
	0.081	8.5	
DR010004000B06			17.2
	0.04	4.1	
BAC_374_M7			21.3
	0.02	2	
REN157F07			23.3
	0.039	4	
PEZ5			27.3
	0.059	6.1	
BAC_382_O4			33.4
	0.221	25	
FH1040			58.4
	0.043	4.4	
BAC_373_O22			62.8

	0.084	8.7	
REN207J23			71.5
	0.252	29	
G01811			100.5
	0.134	14.4	
FH2707			114.9
	0.022	2.2	
CNR1*			117.1
	0.06	6.2	
CGA			123.3
	0.081	8.5	
REN160J15R			131.8
	0.101	10.7	
DR010029A20F11			142.5
	0.08	8.3	
EST11H2			150.8
	0.02	2	
BAC_381_J15			152.8
	0.039	4	
REN89A22			156.8
	0.079	8.3	
DR010027B10C10			165.1
	0.06	6.2	
DR010009A10A09			171.3
	0.205	23	
M110M10			194.3
	0.315	37.9	
DR010029B10A06			232.2
	0.185	20.5	
DR010024B10E11			252.7
	0.08	8.3	
FH3591			261
	0.02	2	
M30-4*			263
	0.02	2	
EST5H8			265
	0.02	2	
BAC_372_C2*			267
	0.02	2	
M141-7			269
	0.078	8.1	
C00104			277.1
	0.078	8.1	
HTR1B			285.2
	0.118	12.6	
M2/3/01			297.8
	0.099	10.4	
STS38K22*			308.2
	0.019	2	
DR010023B10D08			310.2
	0.038	3.9	

MATE2			314.1
	0.019	1.9	
END5			316
	0.019	1.9	
BAC_373_C20*			317.9
	0.019	1.9	
BAC_372_E5*			319.8
	0.039	4	
EST18C3			323.8
	0.058	6	
BAC_374_M17			329.8
	0.058	5.9	
REN45E22			335.7
	0.076	7.9	
FH3713			343.6
	0.021	2.1	
BAC_373_C21			345.7
	0.19	21.1	
EST_CFZ97782			366.8
	0.041	4.2	
DR010004000A06			371
	0.019	1.9	
M174-2			372.9
	0.019	1.9	
DR010011B21G10			374.8
	0.119	12.7	
DR010028B10D05			387.5
	0.237	27.1	
FH2401			414.6
	0.056	5.8	
M232			420.4
	0.057	5.9	
M212-1			426.3
	0.077	8	
M220-D			434.3
	0.078	8.1	
DR010005A10B07			442.4
	0.077	8	
M1-18E			450.4
	0.05	5.2	
EST4G12			455.6
	0.025	2.5	
M107-12			458.1
	0.075	7.8	
M478			465.9
	0.094	9.8	
M1/16/15			475.7
	0.099	10.4	
M34-1			486.1
	0.144	15.5	
FH2054			501.6

	0.077	8	
M1/21/03			509.6
	0.019	1.9	
FH3882			511.5
	0.019	1.9	
M3/14/02			513.4
	0.038	3.9	
M530-3			517.3
	0.096	10.1	
M26-12			527.4
	0.058	6	
C05101			533.4
	0.019	1.9	
M6/28/06			535.3
	0.019	1.9	
M1/26/17			537.2
	0.019	1.9	
FH3711			539.1
	0.056	5.7	
M206-11			544.8
	0.037	3.7	
EST14A1			548.5
	0.056	5.8	
DR010020A10C07			554.3
	0.075	7.8	
BAC_372_E21			562.1
	0.092	9.7	
FH3601			571.8
	0.263	30.5	
BAC_373_E24			602.3
	0.073	7.6	
BAC_385_C5			609.9
	0.036	3.7	
REN194P02			613.6
	0.055	5.6	
BAC_375_M24			619.2
	0.073	7.6	
PLA2G7			626.8
	0.129	13.9	
DR010017A10C11			640.7
	0.23	26.2	
EST29H5			666.9
	0.139	15	
REN213F01			681.9
	0.018	1.8	
EST28A4			683.7
	0.072	7.5	
EST15C11			691.2
	0.018	1.8	
REN262L10			693
	0.018	1.8	

REN262I12			694.8
	0.072	7.5	
BAC_375_C18			702.3
	0.159	17.3	
EST3C8			719.6
	0.104	11	
EST11G5			730.6
	0.06	6.2	
GNMT			736.8
	0.1	10.6	
FH3999			747.4
	0.096	10.1	
RDS			757.5
	0.206	23.1	
REN170E21			780.6
	0.305	36.4	
C07003			817
	0.295	34.9	
REN211B14			851.9
	0.169	18.6	
REN113P22R			870.5
	0.132	14.2	
REN242J05			884.7
	0.098	10.3	
REN153O12			895
	0.163	17.8	
REN258L11			912.8
	0.082	8.6	
FH2789			921.4
	0.1	10.5	
STS75K21			931.9
	0.049	5.1	
BAC_375_O8			937
	0.04	4	
DR010027A10B01			941
	0.059	6.1	
FH2975			947.1
	0.116	12.4	
CLPS			959.5
	0.05	5.2	
DR010017B10D08			964.7
	0.117	12.5	
DR010005A20C09			977.2
	0.082	8.5	
EST2A7			985.7
	0.128	13.7	
DLA_DQA			999.4
	0.037	3.8	
DLA_DRA			1003.2
	0.065	6.7	
DLA_DRB1*			1009.9

	0.057	5.9	
FH2202			1015.8
	0.215	24.2	
TNF			1040
	0.068	7	
FH2200			1047
	0.035	3.5	
DLA_A9			1050.5
	0.134	14.3	
DLA_88			1064.8
	0.15	16.3	
HUEST_L03411			1081.1

unmapped:

DR010022B20F09 best 2-pt TNF

CFA13	Theta	cR between marker	cR total
DR010018A20B10			0
	0.073	7.5	
DR010011A10H05/DR010017A10E01			7.5
	0.073	7.6	
IL8			15.2
	0.199	22.2	
DR010016B20E05			37.4
	0.123	13.1	
FH3800			50.5
	0.049	5	
GNRHR*			55.5
	0.05	5.1	
C13_900			60.6
	0.238	27.2	
C13_758			87.8
	0.109	11.6	
BAC_372_A16			99.4
	0.028	2.8	
REN154P17			102.2
	0.071	7.4	
AHT121			109.5
	0.069	7.2	
EST27H2			116.7
	0.126	13.5	
BAC_372_O9			130.2
	0.031	3.2	
KDR			133.4
	0.062	6.4	
REN126A23*			139.8
	0.079	8.3	
REN66K24			148.1
	0.081	8.4	
DR010006A20H05			156.5
	0.028	2.8	
FH3597*			159.3
	0.028	2.9	
C07102			162.2
	0.168	18.4	
REN227M12			180.6
	0.079	8.3	
BAC_372_M1			188.8
	0.188	20.8	
REN65L04			209.6
	0.165	18	
BAC_382_M24			227.7
	0.111	11.8	
GPAA1			239.4
	0.056	5.8	
DR010005B10D05			245.2

	0.14	15.1	
AHTH239			260.4
	0.082	8.6	
EST12B12			268.9
	0.082	8.6	
REN107M21			277.5
	0.079	8.2	
BAC_385_D13			285.7
	0.026	2.6	
FH3452			288.3
	0.378	47.4	
EST29C9			335.7
	0.406	52.1	
REN165L17			387.7
	0.071	7.4	
FH3986			395.1
	0.169	18.6	
FH3503			413.7
	0.192	21.4	
FH3619			435.1
	0.096	10	
BAC_376_D11			445.1
	0.071	7.4	
REN39A11*			452.5
	0.036	3.6	
EST17E3			456.1
	0.036	3.7	
ANXA13*			459.8
	0.033	3.3	
EST13G9			463.1
	0.066	6.9	
BAC_381_G7			470
	0.244	27.9	
REN65A19			497.9
	0.21	23.6	
REN13N11			521.5
	0.073	7.6	
DTR06_19*			529.1
	0.073	7.6	
BAC_373_A10			536.7
	0.169	18.5	
KCNQ3			555.2
	0.057	5.9	
REN134O22			561.1
	0.052	5.4	
REN147D07			566.5
	0.052	5.3	
REN286P03			571.8
	0.252	29.1	
REN307K04			600.8
	0.113	12	

REN234A03			612.8
	0.133	14.3	
REN238L19			627.1
	0.152	16.5	
REN120P21			643.6
	0.102	10.8	
EST14A2			654.4
	0.124	13.2	
REN98K18			667.6
	0.34	41.5	
EST4E9			709.1
	0.245	28.1	
FH3494			737.2
	0.114	12.2	
BAC_373_I23			749.4
	0.114	12.1	
FH3067			761.5
	0.255	29.4	
C13_391			790.9
	0.098	10.3	
DR010029B20C04			801.3
	0.117	12.4	
DR010006B20F07			813.7

unmapped:
DR010022B20F09 best 2-pt REN126A23*

CFA14	Theta	cR between marker	cR total
PEZ10			0
	0.162	17.7	
REN198G20			17.7
	0.026	2.6	
REN125I20			20.3
	0.053	5.4	
AHTK207			25.7
	0.026	2.6	
EST24C4			28.4
	0.155	16.8	
HUEST_D29206			45.2
	0.179	19.8	
FH3114			64.9
	0.104	11	
FH2957			75.9
	0.052	5.3	
BAC_374_I1*			81.2
	0.131	14	
REN91C04			95.3
	0.139	15	
FH4051			110.2
	0.169	18.5	
FH3453			128.7
	0.054	5.5	
REN233K05			134.2
	0.079	8.2	
BAC_375_K10			142.4
	0.051	5.3	
BAC_374_M1*			147.7
	0.052	5.3	
BAC_376_J23			153
	0.026	2.7	
BAC_381_K9			155.7
	0.106	11.2	
DR010021B10C03			166.9
	0.218	24.6	
EST_CFZ97751			191.5
	0.136	14.6	
BAC_381_A18			206.2
	0.052	5.3	
STS163M13			211.5
	0.104	11	
REN157K10*			222.5
	0.078	8.1	
BAC_376_M17			230.6
	0.133	14.3	
DR010023B10C06			244.9
	0.122	13	
EST27G10			258

	0.125	13.3	
FH3285			271.3
	0.142	15.3	
FH2258			286.6
	0.344	42.2	
DR010028B10B04			328.8
	0.212	23.9	
BAC_381_M15			352.7
	0.027	2.8	
EST11E1			355.5
	0.03	3.1	
REN289L09			358.5
	0.159	17.3	
BAC_373_A17			375.8
	0.211	23.7	
HUEST_M14584			399.5
	0.218	24.6	
IL6			424.1
	0.116	12.3	
BAC_375_M1			436.4
	0.139	15	
FH2658			451.3
	0.077	8	
EST19E2			459.3
	0.074	7.7	
REN169D01			467
	0.074	7.7	
EST15F1			474.6
	0.149	16.2	
REN235M05			490.8
	0.098	10.3	
BAC_382_K2			501.1
	0.024	2.4	
BAC_372_C11			503.5
	0.073	7.5	
FH3102			511.1
	0.099	10.4	
REN141P20			521.5
	0.028	2.8	
REN253L23			524.3
	0.143	15.5	
BAC_375_A14			539.7
	0.147	15.9	
FH3019			555.6
	0.098	10.3	
REN107D22			565.9
	0.03	3	
BAC_375_O13			569
	0.091	9.6	
FH3725			578.5
	0.075	7.8	

REN02O24			586.3
	0.101	10.6	
REN141B14			596.9
	0.088	9.3	
PON2			606.2
	0.125	13.3	
GNGT1			619.5
	0.055	5.7	
DR010003000H08			625.2
	0.053	5.5	
CALCR			630.7
	0.102	10.7	
FH2060			641.4
	0.123	13.1	
BAC_372_I9			654.5
	0.197	21.9	
DR010015A10E11			676.4
	0.135	14.5	
BAC_381_N11*			690.9
	0.087	9.1	
G01506			700.1
	0.165	18.1	
REN144I15			718.1
	0.152	16.5	
REN103E18			734.6
	0.105	11	
C14_866			745.6
	0.049	5	
FH2600			750.7
	0.16	17.5	
DR010006A20B08			768.2
	0.674	112.2	
DR010012B10G07			880.4
	0.343	42	
AHTH262REN			922.4
	0.239	27.3	
BAC_372_E16			949.7
	0.119	12.7	
EST18A2			962.4
	0.12	12.7	
EST5C4			975.1
	0.174	19.1	
FH3951			994.2
	0.13	13.9	
BAC_376_J7			1008.1
	0.166	18.2	
BAC_376_E11			1026.2
	0.172	18.9	
DR010017B20F03			1045.1
	0.143	15.5	
REN110H18			1060.6

	0.07	7.2	
REN187D23			1067.8
	0.208	23.4	
FH2978			1091.2
	0.174	19.2	
CFOR04B08			1110.3
	0.163	17.8	
CFOR20H03			1128.1
	0.096	10.1	
CFOR18B09			1138.2
	0.112	11.9	
STS172O19			1150.1
	0.187	20.8	
CFOR12A03			1170.9
	0.528	75	
DR010017A21D11			1245.9

unmapped:
DR010013B10C01 best 2-pt FH3725

CFA15	Theta	cR between marker	cR total
FH3939			0
	0.108	11.4	
FH3283			11.4
	0.063	6.5	
AHT139			17.9
	0.062	6.4	
EST27A10			24.3
	0.147	15.9	
BAC_382_E15			40.2
	0.021	2.1	
C03509			42.3
	0.063	6.5	
REN144M10			48.8
	0.104	11	
BAC_372_I11			59.7
	0.021	2.1	
BAC_385_E15*			61.8
	0.07	7.3	
EST9H3			69.1
	0.172	18.8	
DR010009B20B08			87.9
	0.089	9.3	
FH3903			97.2
	0.022	2.2	
FH2360			99.5
	0.052	5.3	
FGG			104.8
	0.102	10.8	
BAC_382_K19			115.5
	0.251	28.9	
REN230G12			144.4
	0.294	34.8	
RVC1			179.2
	0.193	21.5	
IGF1			200.8
	0.15	16.3	
TRA1			217
	0.314	37.7	
DR010005A20E07			254.8
	0.33	40	
REN123N11			294.8
	0.083	8.7	
FH2088			303.5
	0.021	2.1	
EST17A4			305.6
	0.043	4.4	
FGA			310
	0.217	24.5	
REN66E15			334.4

	0.084	8.7	
REN01N09			343.2
	0.041	4.2	
EST5H10			347.4
	0.062	6.4	
BAC_380_J2			353.7
	0.161	17.6	
REN193M22			371.3
	0.199	22.2	
DR010027A20A09			393.5
	0.044	4.5	
AHTH17REN			398
	0.06	6.2	
EST11D7*			404.2
	0.081	8.5	
CPH4			412.6
	0.082	8.5	
EST17E11			421.2
	0.17	18.7	
DR010023B20D05			439.8
	0.124	13.3	
DR010020B20E04			453.1
	0.081	8.4	
FH2017			461.5
	0.04	4.1	
REN159B09			465.6
	0.119	12.7	
REN134K05			478.3
	0.105	11.1	
REN303E22			489.4
	0.109	11.5	
REN143N23			500.9
	0.22	24.8	
STS122I11			525.7
	0.123	13.1	
EST13H11			538.9
	0.025	2.6	
FH2171			541.5
	0.05	5.2	
DR010030A10F08			546.6
	0.025	2.5	
EST20F2			549.1
	0.04	4	
FH3685			553.1
	0.079	8.3	
BAC_376_N11			561.4
	0.06	6.2	
REN265J03			567.6
	0.061	6.3	
FH2535			573.9
	0.148	16	

DR010023A20H07			589.8
	0.189	21	
FH3813			610.8
	0.23	26.1	
DR010029B20F10			636.9
	0.103	10.9	
REN122C19			647.8
	0.06	6.1	
REN247M23			653.9
	0.04	4	
MYF5			658
	0.059	6.1	
REN307J23			664.1
	0.28	32.9	
DR010009A10E09			697
	0.13	13.9	
REN06C11			710.9
	0.121	12.9	
EST16C9			723.8
	0.079	8.2	
CFOR03E02			732
	0.059	6.1	
EST8D7			738.1
	0.125	13.3	
BAC_381_O17			751.4
	0.06	6.2	
BAC_382_O14			757.6
	0.079	8.3	
BAC_381_D2			765.9
	0.074	7.7	
DR010015B10H11			773.6
	0.038	3.9	
DR010015A10A12			777.5
	0.178	19.6	
FH3886			797.1
	0.059	6.1	
FH3888			803.2
	0.066	6.8	
FH3833			810
	0.094	9.9	
AHTH257			819.9
	0.121	12.9	
FH4012			832.7
	0.147	15.9	
EST29C3			848.7
	0.285	33.5	
BAC_376_I5			882.2
	0.264	30.7	
DR010028B20C07			912.9
	0.107	11.3	
DR010027A10E05			924.2

	0.244	27.9	
EST11A3			952.2
	0.336	41	
STS116E16			993.1
	0.113	12	
REN297D17			1005.1
	0.079	8.2	
EST23B4			1013.3
	0.062	6.4	
STS114F02			1019.7
	0.153	16.6	
BAC_375_E10			1036.3
	0.077	8	
BAC_381_B4			1044.3
	0.061	6.3	
DR010022B20F11			1050.6
	0.061	6.3	
BAC_381_G3			1056.9
	0.196	21.8	
DR010014B10H08			1078.7
	0.179	19.8	
DR010006B10G04			1098.4
	0.144	15.5	
FH3802			1113.9
	0.078	8.1	
REN219H03			1122.1
	0.072	7.5	
REN50K13			1129.5
	0.186	20.5	
DTPRH02			1150.1
	0.341	41.7	
EST6H9			1191.8

CFA16	Theta	cR between marker	cR total
BAC_381_I2			0
	0.102	10.7	
FH3592			10.7
	0.077	8	
FH2764			18.7
	0.023	2.3	
FH3388			21
	0.24	27.4	
REN96I08			48.4
	0.148	16	
BAC_382_M5			64.4
	0.066	6.8	
BAC_373_M20			71.2
	0.089	9.4	
SPC22*			80.6
	0.161	17.5	
FH2990			98.1
	0.356	43.9	
REN124F09			142
	0.093	9.8	
REN124F19			151.8
	0.158	17.2	
DR010029A20D02			169
	0.064	6.6	
DR010028B10D01			175.6
	0.107	11.3	
DR010005A10D09			186.9
	0.044	4.5	
DR010028B10D06			191.4
	0.067	6.9	
REN292N24*			198.3
	0.033	3.3	
BAC_376_I13			201.6
	0.033	3.4	
BAC_381_L19			205
	0.067	6.9	
BAC_375_A8			211.9
	0.178	19.5	
REN138D05			231.4
	0.043	4.4	
REN275L19			235.8
	0.065	6.7	
REN44K22			242.5
	0.108	11.5	
EST22A7			254
	0.042	4.3	
FH3096			258.3
	0.042	4.3	
REN71F11			262.6

	0.064	6.6	
C16_147			269.2
	0.064	6.6	
FH3058			275.8
	0.088	9.2	
DR010016B20F06			285
	0.111	11.8	
REN54I19			296.8
	0.291	34.4	
DR010003000D11			331.2
BAC_385_I21			0
	0.065	6.8	
FH2175			6.8
	0.112	11.8	
DR010030A10D12			18.6
	0.091	9.5	
BAC_373_G23*			28.1
	0.023	2.3	
FH3290			30.4
	0.221	24.9	
REN210K18			55.3
	0.294	34.8	
ADRB3			90.1
	0.211	23.7	
BAC_382_I4			113.8
	0.113	12	
REN88H03			125.8
	0.068	7	
EST19E10			132.8
	0.045	4.6	
EST23C6			137.4
	0.11	11.7	
DR010026B20E09			149.1
	0.044	4.5	
DP020001000E08			153.6
	0.351	43.3	
REN85M08			196.9
	0.129	13.8	
REN85N14			210.7
	0.1	10.5	
REN176D05			221.2
	0.113	12	
DR010015A20H12			233.2
	0.294	34.8	
BAC_372_M3			268
	0.149	16.1	
HUEST_D59484			284.1
	0.106	11.2	
DR010020A10D06			295.3
	0.032	3.3	

EST12G9			298.6
	0.032	3.3	
BAC_372_C19			301.9
	0.154	16.8	
KCNH2			318.7
REN214L11			0
	0.138	14.9	
REN173J16			14.9
	0.114	12.1	
BAC_385_M5			27
	0.116	12.3	
REN238J02			39.3
	0.11	11.7	
EST_CFZ97788			51
	0.135	14.5	
FH2670			65.5
	0.173	19	
REN199I06			84.5
	0.083	8.6	
BAC_372_I15			93.1
	0.097	10.2	
REN206C13			103.3
	0.13	13.9	
CFOR12C11			117.2
	0.081	8.5	
OLF3			125.7
	0.131	14	
BAC_382_C22			139.7
	0.149	16.1	
REN73O19			155.8
	0.083	8.7	
HCVB72*			164.5
	0.085	8.8	
DR010020B11H05			173.3
	0.096	10.1	
DR010006B10A12			183.4
	0.174	19.2	
CUN50002			202.6
	0.27	31.4	
CLCN1			234
	0.081	8.5	
HCVB21			242.5
	0.059	6.1	
HCVB4			248.6
	0.246	28.3	
DR010013A10A05			276.9
	0.11	11.7	
BAC_381_L21			288.6
	0.139	14.9	
DR010011B21C03			303.5

	0.158	17.1	
DR010013B20G07			320.6
	0.244	27.9	
BAC_381_L9			348.5
	0.127	13.6	
DR010015B10A12			362.1
	0.073	7.5	
DR010012A20H11			369.6
	0.161	17.6	
CFOR08B12			387.2
	0.3	35.7	
AHTH260REN			422.9

unmapped:
DR010012B10A08 best 2-pt REN292N24*.
DR010008B10E03 best 2-pt REN292N24*.

CFA17	Theta	cR between marker	cR total
FH2869			0
	0.066	6.9	
ADORA3			6.9
	0.062	6.4	
DR010026B10E09			13.3
	0.061	6.3	
EST_CFZ97821			19.6
	0.03	3.1	
REN312H06			22.7
	0.146	15.7	
EST_CFZ97793*			38.4
	0.177	19.4	
EST_CFZ97795			57.8
	0.149	16.1	
IVL			73.9
	0.177	19.5	
DP020002000G09			93.4
	0.177	19.5	
DR010027A10F11			112.9
	0.056	5.8	
EST19D1			118.7
	0.027	2.8	
DR010017A10A07			121.5
	0.054	5.6	
EST20F7			127.1
	0.027	2.7	
EST18C11			129.8
	0.082	8.6	
CPH10			138.4
	0.084	8.7	
PEZ8			147.1
	0.084	8.7	
FH4035			155.8
	0.055	5.7	
DR010016A10F08			161.5
	0.027	2.8	
CFOR12C10			164.3
	0.08	8.4	
REN112G10			172.7
	0.079	8.2	
G07301			180.9
	0.106	11.2	
BAC_376_B15*			192.1
	0.08	8.4	
DR010024A10E04			200.5
	0.258	29.8	
DR010024B20H03			230.3
	0.122	13.1	
NGFB			243.4

	0.03	3.1	
FH3775			246.5
	0.059	6.1	
TSHB			252.6
	0.03	3	
EST28B4*			255.6
	0.091	9.5	
REN71C16			265.1
	0.189	21	
REN310J13			286.1
	0.09	9.5	
BAC_373_O20*			295.6
	0.089	9.3	
BAC_382_I23			304.9
	0.087	9.1	
REN291O02*			314
	0.028	2.8	
FH3488			316.8
	0.027	2.8	
BAC_372_K11			319.6
	0.111	11.7	
EST19A2*			331.3
	0.028	2.8	
EST5B4*			334.1
	0.027	2.8	
FH2843			336.9
	0.166	18.2	
FH4023			355.1
	0.057	5.9	
EST24H8			361
	0.029	2.9	
BAC_373_E2			363.9
	0.142	15.3	
IL1A			379.2
	0.072	7.5	
IL1B			386.7
	0.255	29.4	
REN189C11			416.1
	0.443	58.4	
DR010005B20D05			474.5
	0.186	20.5	
EST20H9			495
	0.118	12.5	
DR010019A10F07			507.5
	0.087	9.1	
REN164F06			516.6
	0.118	12.5	
DR010027B10D03			529.1
	0.225	25.5	
VIT			554.6
	0.095	10	

DR010026B20C11			564.6
	0.089	9.3	
REN50B03			573.9
	0.057	5.9	
BAC_373_A18			579.8
	0.2	22.3	
DP050001000D12			602.1
	0.057	5.9	
EST26F1			608
	0.057	5.9	
REN191O19*			613.9
	0.082	8.6	
EST11D10			622.5
	0.184	20.4	
REN85O06			642.9
	0.08	8.4	
REN01K01			651.3
	0.027	2.8	
REN294E18			654.1
	0.027	2.8	
BAC_372_G23*			656.9
	0.028	2.8	
EST26F4			659.7
	0.067	6.9	
C02604			666.6
	0.139	15	
REN02C03			681.6
	0.221	25	
DR010010B20B05			706.6
	0.332	40.4	
DR010025A10C12			747
	0.265	30.8	
EST3E1			777.8
	0.037	3.8	
AHTH265			781.6
	0.108	11.4	
EST13A9			793
	0.057	5.9	
CPH5			798.9
	0.326	39.4	
FH3349			838.3
	0.1	10.6	
BAC_382_E2			848.9
	0.099	10.4	
STS163A22			859.3
	0.145	15.7	
REN169J04			875
	0.049	5	
FH4061			880
	0.295	35	
BAC_373_C22			915

BAC_382_I6			0
	0.615	95.3	
EST17D5			95.3
	0.22	24.8	
COS15			120.1
	0.24	27.4	
REN240A05			147.5
	0.18	19.9	
REN64N24			167.4
	0.072	7.5	
DTR17_1			174.9
	0.272	31.8	
DTR15_01			206.7
	0.214	24	
DR010026A10E10			230.7
	0.185	20.5	
DR010027A20E02			251.2
	0.088	9.3	
AHTH282REN			260.5
	0.229	26	
C17_402			286.5
	0.14	15.1	
FH3369			301.6
	0.103	10.9	
FH2321			312.5
	0.062	6.4	
GS3955			318.9
	0.081	8.5	
FH4058			327.4
	0.06	6.2	
BAC_376_A9			333.6
	0.263	30.5	
FH3047			364.1
	0.096	10.1	
EST24F7			374.2
	0.022	2.2	
FH1003			376.4
	0.114	12.1	
FH3809			388.5
	0.291	34.4	
DR010021A10F04			422.9

unmapped:
DR010006A10A08 best 2-pt AHTH265

CFA18	Theta	cR between marker	cR total
DR010027A10B03			0
	0.461	61.8	
DR010019B20A10			61.8
	0.02	2	
DR010023A10E04			63.8
	0.04	4.1	
AHTK32			67.9
	0.082	8.5	
AHT130			76.5
	0.042	4.2	
AHTK292REN*			80.7
	0.021	2.1	
EST_CFZ97737*			82.8
	0.041	4.2	
REN64K04			87.1
	0.061	6.3	
EST12G6*			93.4
	0.062	6.4	
FH2429			99.7
	0.061	6.3	
C18_460*			106.1
	0.1	10.5	
REN266I17			116.6
	0.039	4	
BAC_375_G23*			120.5
	0.04	4.1	
DR010018A20C05			124.6
	0.02	2	
DR010012A20C06			126.6
	0.02	2.1	
BAC_375_E23			128.7
	0.126	13.5	
DR010026A10D11			142.2
	0.177	19.4	
DR010001000C02			161.6
	0.323	39.1	
REN168H09			200.7
	0.114	12.1	
REN95P11			212.8
	0.059	6.1	
BAC_373_I22			218.9
	0.076	7.9	
BAC_385_K11			226.7
	0.103	10.9	
BAC_376_N21			237.6
	0.062	6.4	
REN258K13			244
	0.041	4.2	
REN281E03			248.2

	0.187	20.8	
CFOR04C05			268.9
	0.208	23.3	
CD44			292.2
	0.082	8.5	
WT1			300.7
	0.041	4.2	
FH3824			304.9
	0.125	13.3	
PAX6			318.2
	0.219	24.7	
BAC_381_N8			342.9
	0.054	5.6	
DR010028A10B12			348.5
	0.099	10.4	
CFOR04B04			358.9
	0.06	6.2	
TPCR63			365.1
	0.118	12.6	
FH3352			377.7
	0.028	2.8	
EST23A3			380.5
	0.028	2.8	
FH3010			383.3
	0.098	10.3	
REN47J11			393.6
	0.077	8	
REN248C19			401.6
	0.038	3.9	
REN167O08			405.4
	0.076	7.9	
CFOR08G02			413.3
	0.092	9.6	
OLF2			422.9
	0.064	6.6	
OLF1			429.6
	0.11	11.7	
CFOR16E11			441.2
	0.138	14.9	
CAT			456.1
	0.054	5.5	
EST20F3			461.6
	0.057	5.9	
EST4D4			467.5
	0.096	10.1	
FH2795			477.7
	0.038	3.9	
DP050002000B06			481.6
	0.229	26	
DR010012B20A04			507.6
	0.082	8.5	

BAC_374_M23			516.1
	0.017	1.7	
BAC_373_K16			517.8
	0.042	4.3	
FH3255			522.1
	0.088	9.2	
FH3815			531.3
	0.098	10.3	
FH3577			541.5
	0.073	7.6	
FH3477			549.1
	0.322	38.9	
COS18			588
	0.125	13.4	
DR010028B10A09			601.4
	0.308	36.8	
BAC_381_D17			638.2
	0.058	5.9	
BAC_385_G19			644.1
	0.134	14.4	
BAC_375_H17			658.5
	0.077	8.1	
C18_156			666.6
	0.055	5.6	
EST14G6			672.2
	0.121	12.9	
REN183B03			685.1
	0.242	27.8	
REN52K18			712.9
	0.131	14.1	
BAC_373_E18			727
	0.135	14.5	
DR010022A10A04			741.5
	0.09	9.4	
DTR18_7			750.9
	0.115	12.2	
REN54P11			763.1
	0.157	17.1	
EST7A8			780.2
	0.106	11.2	
DR010030A20E10			791.4
	0.417	54	
DLD			845.4
	0.226	25.6	
REN249N22*			871
	0.02	2.1	
BAC_376_M23			873
	0.07	7.2	
EST18B12			880.2
	0.145	15.7	
STS182J12			895.9

	0.219	24.7	
REN06H23			920.6
	0.205	22.9	
DP050001000E10			943.5
	0.116	12.4	
FH2834			955.8
	0.114	12.1	
EST10E7			968
	0.112	11.8	
BAC_373_A15			979.8
	0.2	22.3	
INHBA			1002.1
	0.071	7.4	
REN186N13			1009.5
	0.071	7.4	
REN42L13			1016.9
	0.129	13.8	
BAC_385_K9			1030.7
	0.109	11.5	
EST17F4			1042.2
	0.017	1.7	
EST27A11			1043.9
	0.08	8.3	
DR010023A20C08			1052.2
	0.142	15.3	
DR010011B21C04			1067.4
	0.172	18.8	
FH3944			1086.3
	0.083	8.7	
BAC_372_M24			1095
	0.158	17.2	
REN162O13			1112.2
	0.202	22.5	
REN129P11			1134.7
	0.274	32	
FH4060			1166.7
	0.558	81.7	
SEC61G			1248.3

unmapped:
DR010027A20E04 best 2-pt REN258K13

CFA19	Theta	cR between marker	cR total
EST5B5			0
	0.11	11.6	
EST28F12			11.6
	0.134	14.4	
BAC_376_J11			26.1
	0.033	3.4	
STS124M12			29.4
	0.033	3.4	
REN80A10			32.8
	0.102	10.8	
REN146K24			43.5
	0.146	15.8	
FH3299			59.3
	0.146	15.8	
FH3746			75.1
	0.17	18.7	
FH3868*			93.8
	0.161	17.6	
FH2783			111.4
FH3830			0
	0.058	6	
REN213G21			6
	0.028	2.9	
BAC_372_O6*			8.9
	0.113	12	
EST18C7			20.9
	0.055	5.7	
BAC_385_G13			26.6
	0.055	5.7	
BAC_381_I22			32.3
	0.027	2.8	
PEZ3			35.1
	0.132	14.2	
REN261G24			49.3
	0.254	29.4	
REN106D15			78.7
	0.179	19.7	
FH3849			98.4
	0.052	5.4	
REN297N10			103.8
	0.051	5.3	
REN297N05			109.1
	0.125	13.4	
FH3747			122.5
	0.099	10.5	
FH3491			133
	0.2	22.3	
REN110I01			155.3

	0.05	5.1	
REN131O22			160.4
	0.025	2.5	
FH4095			162.9
	0.025	2.6	
CANBERN1*			165.5
	0.025	2.6	
ZUBECA5			168.1
	0.098	10.3	
C02005			178.4
	0.048	4.9	
FH3100			183.3
	0.048	4.9	
REN91I14			188.2
	0.098	10.3	
REN65M08			198.5
	0.075	7.8	
BAC_375_F15			206.3
	0.174	19.1	
FH3940			225.4
	0.09	9.5	
BAC_381_D19			234.9
	0.107	11.3	
DR010001000E07			246.2
	0.025	2.6	
REN306J16			248.8
	0.05	5.1	
BAC_416_L2			253.9
	0.024	2.5	
AHTH67*			256.4
	0.096	10.1	
FH3313			266.5
	0.365	45.5	
DR010015B20A07			312
FH3834			0
	0.123	13.1	
IL2			13.1
	0.256	29.6	
BAC_376_K9			42.7
	0.231	26.2	
DR010030B10B01			68.9
	0.023	2.4	
EST22A4			71.3
	0.071	7.3	
BAC_381_F1*			78.6
	0.071	7.3	
CPH8			85.9
	0.217	24.4	
FH2206			110.3
	0.07	7.2	

DTR19_31			117.5
	0.046	4.7	
FH3372			122.2
	0.068	7	
BAC_375_A17			129.2
	0.113	11.9	
FH3052			141.1
	0.304	36.2	
CPH17			177.3
	0.177	19.5	
REN274F18			196.8
	0.116	12.3	
FH2380			209.1
	0.27	31.5	
REN183C01			240.6
	0.431	56.4	
FH3969			297
	0.187	20.7	
AHTH149			317.7
	0.156	16.9	
DR010022B20C01			334.6

CFA20	Theta	cR between marker	cR total
DR010020B20H02			0
	0.17	18.6	
STS96B17			18.6
	0.288	33.9	
AHTK209			52.5
	0.159	17.3	
REN293N22			69.8
	0.027	2.8	
EST5B8			72.6
	0.056	5.7	
DR010026B20B12			78.3
	0.145	15.7	
AHTH284REN			94
	0.029	2.9	
CAPS			97
	0.089	9.4	
REN114M19			106.3
	0.088	9.2	
CFOR10A06			115.5
	0.136	14.6	
CFOR10F07			130.1
	0.134	14.4	
EST19A3*			144.5
	0.112	11.9	
REN88D22			156.4
	0.113	12	
DR010026B20H02			168.5
	0.057	5.9	
REN249D14			174.3
	0.029	2.9	
ACP5*			177.3
	0.029	2.9	
EST11C11			180.2
	0.145	15.6	
CFOR16B10P			195.8
	0.086	9	
OLF4			204.8
	0.11	11.6	
REN122G10			216.4
	0.185	20.5	
AHTK20			236.9
	0.134	14.3	
CFOR10A02*			251.3
	0.114	12.1	
DR010018B10D01			263.4
	0.204	22.9	
EST4E4			286.2
	0.056	5.7	
EST12D8*			291.9

	0.027	2.8	
FH2158			294.7
	0.026	2.7	
DGN14			297.4
	0.104	11	
EST8C2			308.4
	0.3	35.7	
STS51P23			344.1
	0.724	128.8	
DR010006A20E02			472.9
	0.276	32.3	
PRKCD			505.2
	0.265	30.7	
GNAT1			535.9
	0.214	24.1	
APEH			560
	0.248	28.5	
DR010020A10A03			588.5
	0.254	29.2	
BAC_376_I15			617.7
	0.153	16.6	
COL7A1			634.3
	0.029	2.9	
EST2C7			637.2
	0.026	2.6	
EST25A11*			639.9
	0.051	5.2	
DAG1			645.1
	0.252	29	
GRM2			674.1
	0.027	2.7	
BAC_372_K3			676.8
	0.078	8.1	
BAC_375_E3			685
	0.032	3.3	
REN193A22			688.2
	0.098	10.3	
C20_622			698.5
	0.077	8	
REN75I12			706.6
	0.077	8.1	
REN89L24			714.6
	0.051	5.2	
REN316E23			719.9
	0.076	7.9	
REN149D23			727.8
	0.051	5.2	
BAC_374_G17			733
	0.026	2.7	
FH2946			735.6
	0.026	2.7	

EST19A7			738.3
	0.154	16.8	
REN250B12			755.1
	0.05	5.2	
EST17C8			760.2
	0.077	8.1	
DR010016A20F01			768.3
	0.078	8.1	
DR010014B10C07			776.4
	0.132	14.1	
FH2148			790.5
	0.078	8.1	
BAC_372_G21			798.6
	0.051	5.2	
FH3358			803.9
	0.075	7.8	
CPH16			811.7
	0.025	2.5	
BAC_380_H2			814.2
	0.05	5.1	
FH3109			819.3
	0.025	2.5	
FH2719			821.8
	0.175	19.2	
BAC_376_K5*			841.1
	0.149	16.1	
BAC_372_A13*			857.2
	0.121	12.9	
FH2365			870.1
	0.07	7.3	
REN153G22			877.3
	0.181	19.9	
REN100J13			897.3
	0.295	35	
DR010003000F09			932.3
	0.244	27.9	
EST4H11			960.2
	0.198	22.1	
REN159M20			982.3
	0.14	15.1	
REN130E03*			997.4
	0.071	7.4	
REN96J16			1004.8
	0.125	13.4	
BAC_381_J1			1018.1
	0.101	10.6	
BAC_385_L13*			1028.8
	0.095	10	
REN60C14			1038.7
	0.071	7.3	
C01801			1046

	0.024	2.4	
BAC_376_M9			1048.4
	0.126	13.5	
BAC_375_E1			1061.9
	0.097	10.2	
FH2625			1072
	0.112	11.8	
FH2951			1083.9
	0.102	10.8	
BAC_381_D23			1094.6
	0.178	19.6	
FH2863			1114.2
	0.112	11.9	
BAC_381_F13			1126.1
	0.045	4.6	
BAC_376_M21			1130.7
	0.045	4.6	
C20_610			1135.3
	0.134	14.4	
BAC_382_M7			1149.7
	0.064	6.7	
BAC_385_M9			1156.4
	0.108	11.5	
FH2892			1167.8
	0.126	13.5	
BAC_381_C4			1181.3
	0.177	19.5	
DR010006A10F09			1200.8
	0.109	11.5	
FH3009			1212.3
	0.02	2.1	
EST13G6			1214.3
	0.042	4.2	
BAC_375_G24			1218.6
	0.142	15.3	
REN119P03			1233.9
	0.276	32.3	
REN55P21			1266.2
	0.178	19.5	
FH2887			1285.7
	0.164	18	
RHO			1303.7
	0.259	30	
AHTH216REN			1333.7
	0.09	9.4	
DR010027B10F03			1343.1
	0.214	24.1	
REN150K12			1367.2
	0.116	12.4	
PEZ19			1379.5
	0.153	16.6	

DR010006A20H09			1396.1
	0.162	17.6	
SEC61A1			1413.7
	0.141	15.2	
RAB7			1429
	0.159	17.3	
SLC6A6			1446.2
	0.154	16.7	
DR010023A10B11			1463

chr20:
DR010015A20C04 best 2-pt BAC_381_D23
DR010019A10B01 best 2-pt EST17C8
DR010017A10D05 best 2-pt FH2625
DR010015B10C07 best 2-pt RHO
DR010026B20E12 best 2-pt FH2158

CFA21	Theta	cR between marker	cR total
BDNF			0
	0.325	39.3	
DR010012A10B02			39.3
	0.209	23.5	
BAC_374_A7			62.8
	0.021	2.1	
DR010013B20E08			64.9
	0.062	6.4	
BAC_381_B10			71.3
	0.146	15.8	
DINRA21			87.1
	0.152	16.5	
FH2233			103.6
	0.109	11.6	
REN187M02			115.2
	0.021	2.2	
BAC_373_O21			117.4
	0.063	6.5	
REN313E19			123.9
	0.084	8.7	
EST6D2			132.6
	0.021	2.1	
FH3435			134.7
	0.303	36.1	
EST7E8			170.8
	0.274	32	
SAA2			202.8
	0.189	20.9	
FH3880			223.7
	0.17	18.7	
EST11A11			242.4
	0.107	11.3	
CALCA			253.7
	0.086	9	
PTH			262.7
	0.232	26.3	
FH2914			289
	0.02	2	
BAC_372_M20			291
	0.081	8.4	
BAC_385_F17			299.4
	0.102	10.8	
BAC_382_E18			310.2
	0.061	6.3	
REN118B15			316.5
	0.02	2	
REN109A16			318.5
	0.04	4.1	
REN107L03			322.6

	0.12	12.8	
FH3117			335.4
	0.02	2	
BAC_375_E6			337.4
	0.059	6.1	
BAC_381_D11			343.5
	0.099	10.4	
HUEST_D29070			353.9
	0.286	33.6	
EST26A5			387.5
	0.38	47.7	
EST8D12			435.2
FH3604			0
	0.307	36.7	
REN285A14			36.7
	0.071	7.4	
DP020001000H07			44.1
	0.116	12.3	
EST13C5			56.4
	0.092	9.7	
DR010017B10A02			66.1
	0.19	21.1	
CCKBR			87.2
	0.208	23.3	
REN144A16			110.5
	0.138	14.9	
CFOR08H01P			125.4
CFOR12A07			0
	0.145	15.7	
FH2441			15.7
	0.021	2.1	
CFOR10F05			17.8
	0.042	4.2	
CLN2			22
	0.105	11.1	
STS155H06			33.1
	0.085	8.9	
HBB			42
	0.128	13.7	
FH2943			55.7
	0.021	2.1	
G02620*			57.8
	0.021	2.1	
REN264O17			59.9
	0.021	2.1	
REN62H01			62
	0.063	6.6	
DR010023B20E07			68.6
	0.057	5.8	

BAC_373_I14			74.4
	0.028	2.8	
DR010007A10B03			77.2
	0.021	2.1	
FH3118			79.3
	0.084	8.8	
DR010007A10H11			88.1
	0.107	11.4	
UCP3			99.5
	0.042	4.3	
UCP2			103.8
	0.105	11.1	
KIAA0102			114.9
	0.063	6.5	
BAC_372_A4			121.4
	0.064	6.6	
AHTH298			128
	0.065	6.7	
EST19G6			134.7
	0.022	2.2	
BAC_385_G1			136.9
	0.021	2.2	
BAC_374_I5			139.1
	0.086	9	
EST26G7			148.1
	0.122	13	
REN263B23			161.1
	0.095	10	
REN256J10			171.1
	0.082	8.6	
DTR21_10			179.7
REN108B17			0
	0.018	1.8	
FH3823			1.8
	0.052	5.3	
EST6D1			7.1
	0.068	7.1	
REN160C04			14.2
	0.103	10.8	
REN252J02*			25
	0.017	1.7	
EST17H2			26.7
	0.017	1.7	
REN59K01			28.4
	0.051	5.2	
DR010009A10A12			33.6
	0.067	7	
REN199O08			40.6
	0.102	10.7	
REN245F15			51.3

	0.051	5.2	
FH3398			56.5
	0.034	3.5	
EST13F9			60
	0.017	1.7	
REN108G11			61.7
	0.086	9	
BAC_382_G16			70.7
	0.086	9	
BAC_385_A9			79.7
	0.104	10.9	
TYR			90.6
	0.264	30.7	
REN242O23			121.3
	0.151	16.4	
FH3624			137.7
	0.049	5	
REN260L24			142.7
	0.097	10.2	
BAC_381_M17			152.9
	0.128	13.6	
DGN17			166.5
	0.031	3.2	
FH2617			169.7
	0.079	8.2	
BAC_382_A10			177.9
	0.176	19.4	
FH2473			197.3
	0.267	31.1	
FH3069			228.4
	0.135	14.5	
FH2161			242.9
	0.065	6.8	
FH2312			249.7
	0.087	9.1	
PGR			258.8

unmapped:
DR010028A10F03 best 2-pt BAC_372_M20

CFA22	Theta	cR between marker	cR total
FH3853			0
	0.061	6.3	
REN202B14			6.3
	0.062	6.3	
ATP4B			12.6
	0.063	6.5	
DR010023B10H05			19.1
	0.042	4.2	
EST3G2			23.4
	0.062	6.4	
BAC_376_O1*			29.8
	0.063	6.5	
DR010027A20E12			36.3
	0.064	6.6	
BAC_372_C13			42.9
	0.087	9.1	
REN78I16			52
	0.13	14	
REN256E18			65.9
	0.065	6.7	
REN166O23			72.7
	0.067	6.9	
BAC_376_P21			79.6
	0.238	27.2	
EST27F8			106.8
	0.048	4.9	
GPR18			111.7
	0.093	9.8	
C22_279			121.5
	0.055	5.7	
FH2725			127.2
	0.085	8.9	
HSAE038			136.1
	0.071	7.4	
REN109L02			143.5
	0.097	10.2	
FH3482			153.7
	0.121	12.9	
FH3274			166.6
	0.169	18.5	
REN245C13			185.1
	0.095	9.9	
DCT			195
	0.046	4.7	
FH2662			199.8
	0.046	4.7	
REN94I19			204.5
	0.143	15.4	
FH3411			219.9

	0.118	12.5	
BAC_381_K11*			232.5
	0.045	4.6	
EST4D1			237.1
	0.115	12.2	
EDNRB			249.3
	0.046	4.7	
REN69E24			254
	0.091	9.5	
BAC_373_E1			263.6
	0.279	32.8	
BAC_376_D7			296.3
	0.115	12.2	
DR010022A10C11			308.5
	0.157	17.1	
REN107H05			325.6
	0.246	28.3	
REN128E21			353.9
	0.177	19.4	
BAC_373_K17			373.3
	0.044	4.5	
BAC_374_K7*			377.8
	0.173	18.9	
BAC_385_K7			396.7
	0.084	8.7	
FH4048			405.5
	0.103	10.8	
BAC_375_B17			416.3
	0.06	6.2	
REN257M23			422.5
	0.101	10.6	
BAC_381_J20			433.1
	0.081	8.4	
G06208			441.6
	0.163	17.7	
REN192C05			459.3
	0.04	4.1	
EST20D10			463.4
	0.141	15.2	
C22_768			478.7
	0.04	4.1	
FH1030			482.7
	0.301	35.8	
C22_763			518.5
	0.115	12.2	
AHTH211			530.7
	0.128	13.7	
REN42F10			544.5
	0.116	12.3	
DR010019B20C03			556.8
	0.208	23.3	

DR010020B20G11			580.1
	0.114	12.1	
DR010007A20E10			592.2
	0.096	10.1	
REN128H16			602.3
	0.146	15.8	
RB1			618.1
	0.186	20.5	
REN68D20			638.6
	0.177	19.4	
EST9H12			658
	0.034	3.5	
REN274B06			661.5
	0.121	12.8	
EST25B6*			674.3
	0.209	23.4	
BAC_381_D5			697.7
	0.262	30.4	
DR010029A20B06			728.1

unmapped:
DR010017A21A05 best 2-pt EST3G2
DR010005B10H04 best 2-pt EST4D1
DR010022B20E05 best 2-pt REN202B14
DR010016A10D10 best 2-pt BAC_376_O1*
DP030001000H05 best 2-pt REN69E24
DR010029A10A07 best 2-pt REN128H16.

CFA23	Theta	cR between marker	cR total
DR010022B20B03			0
	0.25	28.7	
REN181K04			28.7
	0.129	13.8	
BAC_381_G20			42.5
	0.114	12.1	
BAC_376_O13			54.6
	0.066	6.8	
FH2001			61.4
	0.044	4.5	
EST22B11			65.9
	0.022	2.2	
FH3108			68.1
	0.112	11.8	
BAC_372_I5*			79.9
	0.067	6.9	
CPB1			86.8
	0.178	19.6	
BAC_373_G4			106.4
	0.087	9.1	
BAC_374_G9			115.5
	0.045	4.6	
EST17D12			120.1
	0.11	11.7	
AHTH180			131.8
	0.257	29.7	
DR010026A20D12			161.5
	0.195	21.7	
EST23G9			183.2
	0.138	14.8	
DTR23_28			198
	0.188	20.9	
FH2227			218.9
	0.134	14.4	
BAC_381_E11			233.3
	0.086	9	
REN02P03			242.3
	0.151	16.4	
HSAE005			258.7
	0.151	16.4	
FH2889			275.1
	0.021	2.2	
EST27H12			277.3
	0.125	13.4	
FH3609			290.7
	0.181	20	
REN156G20			310.7
	0.079	8.2	
REN210D03			318.9

	0.099	10.4	
C23_123			329.3
	0.081	8.5	
EST5A11			337.8
	0.082	8.6	
DR010030B10B06			346.4
	0.188	20.8	
BAC_376_E1			367.2
	0.188	20.9	
DR010016B10H07			388.1
	0.135	14.5	
REN264K20			402.6
	0.095	10	
REN293J17			412.6
	0.038	3.9	
STS69F06			416.5
	0.019	1.9	
REN307K21			418.4
	0.057	5.8	
BAC_382_K14			424.2
	0.117	12.5	
BAC_381_H9			436.7
	0.289	34.1	
EST10C7			470.8
	0.047	4.8	
REN46F18			475.6
	0.093	9.7	
CPH6			485.3
	0.099	10.5	
BAC_373_G7			495.8
	0.02	2	
EST25C12			497.8
	0.071	7.3	
BAC_382_O3			505.1
	0.073	7.6	
DR010027A20G12			512.7
	0.064	6.6	
EST12H1			519.3
	0.149	16.1	
FH3571			535.4
	0.145	15.7	
C23_277			551.1
	0.04	4.1	
BAC_372_G7			555.2
	0.102	10.7	
FH2626			565.9
	0.141	15.2	
DR010009B10F03			581.1
	0.142	15.4	
REN193M02			596.5
	0.084	8.8	

BAC_373_E5			605.3
	0.168	18.3	
FH3671_SCN5A			623.6
	0.08	8.4	
AHTK253			632
	0.22	24.8	
EST15A12			656.8
	0.272	31.8	
BAC_376_L15			688.6
	0.183	20.3	
GLB1			708.9
	0.09	9.4	
DR010027A20F08			718.3
	0.059	6.1	
FH2508			724.4

unmapped:
DR010030A20G06 best 2-pt EST10C7
DR010006B10B09 best 2-pt EST5A11

CFA24	Theta	cR between marker	cR total
DR010027B20B07			0
	0.065	6.8	
REN228J19			6.8
	0.043	4.4	
REN241J01			11.2
	0.085	8.9	
AHTK37			20.1
	0.245	28.1	
BAC_416_B4			48.2
	0.207	23.2	
DR010011B10D02			71.4
	0.112	11.9	
BAC_381_D15			83.3
	0.129	13.9	
DR010012B10H02			97.2
	0.248	28.5	
DR010009B10B08			125.7
	0.199	22.2	
PCK1			147.9
	0.021	2.1	
BMP7*			150
	0.021	2.1	
BAC_375_O18*			152.1
	0.065	6.7	
DR010011A20H04			158.8
	0.194	21.6	
FH2079			180.4
	0.123	13.2	
EST12H8			193.6
	0.148	16.1	
AHTH9BREN			209.7
	0.175	19.3	
DR010023A10D10			229
	0.22	24.9	
BAC_381_N19*			253.9
	0.134	14.4	
FH2711			268.3
	0.112	11.9	
AHT118			280.2
	0.068	7	
TOP1			287.2
	0.255	29.4	
AHT125			316.6
	0.136	14.6	
REN67E24			331.2
	0.069	7.1	
EST10H7			338.3
	0.023	2.3	
DR010009B10E02			340.6

	0.071	7.4	
DR010011B21A02			348
	0.071	7.4	
BAC_381_L3			355.4
	0.139	14.9	
REN95M13			370.3
	0.462	61.9	
DR010014B10E07			432.2
	0.258	29.9	
FH2495			462.1
	0.121	12.9	
PDYN			475
	0.166	18.1	
FH3616			493.1
	0.045	4.6	
REN127K17			497.7
	0.112	11.9	
FH2261			509.6
	0.091	9.6	
BAC_374_O23			519.2
	0.046	4.7	
DR010005A10H05			523.9
	0.169	18.5	
DR010011B21H10			542.4
	0.075	7.8	
BAC_376_E7			550.2
	0.321	38.6	
REN209L11			588.8
	0.064	6.6	
BAC_372_A21			595.4
	0.043	4.3	
BAC_375_H11			599.7
	0.064	6.6	
BAC_373_M3			606.3
	0.129	13.8	
REN106I06			620.1
	0.165	18	
PLCB4			638.1
	0.093	9.8	
BAC_381_L15			647.9
	0.085	8.9	
BAC_382_I20			656.8
	0.206	23.1	
FH2897			679.9
	0.02	2	
BAC_374_G3			681.9
	0.04	4.1	
DR010001000F06			686
	0.02	2.1	
FH2159			688.1
	0.041	4.2	

BAC_372_M19			692.3
	0.126	13.5	
FH2168			705.8
	0.234	26.7	
FH3385			732.5
	0.237	27.1	
DR010028B20D09			759.6
	0.278	32.6	
AHTH138			792.2
	0.077	8	
STS132H19*			800.2
	0.249	28.6	
PCSK2			828.8
	0.188	20.8	
RRBP1			849.6
	0.149	16.1	
DP040002000H06			865.7
	0.092	9.6	
FH3023			875.3
	0.334	40.7	
FH2281			916
	0.265	30.8	
DR010012A10H05			946.8
	0.243	27.8	
STS264H19			974.6
	0.114	12.1	
FH2010			986.7
	0.18	19.9	
REN240J23			1006.6
	0.159	17.3	
FH3750			1023.9
	0.141	15.2	
DR010028B20B12			1039.1

CFA25	Theta	cR between marker	cR total
AHTH226REN			0
	0.138	14.9	
STS1C06			14.9
	0.026	2.7	
BAC_381_H21			17.6
	0.077	8.1	
CFOR12C12			25.7
	0.181	19.9	
RDC1			45.6
	0.108	11.5	
BAC_375_L21			57.1
	0.108	11.4	
STS133N13			68.5
	0.111	11.8	
FH4027			80.3
	0.114	12.1	
ALPI			92.4
	0.057	5.9	
PDE6D			98.3
	0.106	11.2	
EST25A4			109.5
	0.035	3.5	
BAC_381_N14			113
	0.028	2.8	
REN61G15			115.8
	0.028	2.8	
BAC_381_B3*			118.6
	0.028	2.9	
DR010014B20D03			121.5
	0.113	11.9	
FH3262			133.4
	0.137	14.7	
FH3101			148.1
	0.082	8.5	
COL4A3			156.6
	0.08	8.4	
BAC_382_E17			165
	0.156	17	
FH3627			182
	0.247	28.4	
COL4A4			210.4
LPL			0
	0.269	31.4	
AHTK120			31.4
	0.068	7	
REN311A17			38.4
	0.046	4.7	
FH4041*			43.1

	0.07	7.2	
DR010022A20B06			50.3
	0.14	15.1	
FH2006			65.4
	0.167	18.3	
EST5E3			83.7
	0.095	10	
STS54O12			93.7
	0.048	4.9	
FH2141			98.6
	0.024	2.5	
BAC_376_O5			101.1
	0.024	2.5	
FH2748			103.6
	0.024	2.4	
PNOC			106
	0.072	7.4	
FH2817			113.4
	0.169	18.5	
DR010007A10C10			131.9
	0.169	18.5	
CLU			150.4
	0.145	15.7	
DR010025B20E03			166.1
	0.074	7.7	
BAC_372_E9			173.8
	0.025	2.5	
REN05E03			176.3
	0.18	19.8	
DR010017B10C02			196.1
	0.128	13.7	
REN288K01			209.8
	0.049	5	
FH3327			214.8
	0.095	10	
FH3979			224.8
	0.093	9.7	
EST16E5			234.5
	0.101	10.6	
FH1004			245.1
	0.157	17.1	
EST_CFZ97779			262.2
	0.174	19.1	
DR010025A10A04			281.3
	0.098	10.3	
EST11H6			291.6
	0.077	8.1	
FH3923			299.7
	0.077	8.1	
EST18C6			307.8
	0.025	2.5	

BAC_376_P13			310.3
	0.183	20.2	
FH3861			330.5
	0.089	9.3	
BAC_372_A23			339.8
	0.064	6.7	
DR010023A20F09			346.5
	0.324	39.2	
DR010021A20B12			385.7
	0.508	70.9	
BAC_385_O19			456.6
	0.143	15.5	
SGCG			472.1
	0.068	7.1	
BAC_382_E20			479.2
	0.091	9.6	
FH2324			488.8
	0.022	2.3	
FH3017			491.1
	0.114	12.1	
BAC_372_E18			503.2
	0.022	2.3	
DP020001000B11			505.5
	0.022	2.3	
FH2318			507.8
	0.112	11.8	
DR010024A20E01			519.6
	0.194	21.6	
REN94H15			541.2
	0.131	14.1	
REN124F24			555.3
	0.244	28	
DR010017A10E03			583.3
	0.097	10.2	
REN247L23			593.5
	0.072	7.4	
BAC_417_D6			600.9
	0.065	6.7	
REN228N10			607.6
	0.245	28.1	
FH3245			635.7
	0.224	25.4	
DR010017A21D02			661.1
	0.13	13.9	
DR010028A20D03			675
	0.064	6.6	
BRCA2			681.6
	0.241	27.6	
REN103F16			709.2
	0.189	20.9	
REN166C13			730.1

	0.114	12.2	
EST2F3			742.3
	0.138	14.8	
BAC_375_M22			757.1
	0.066	6.8	
FH3977			763.9
	0.227	25.8	
BAC_381_A15			789.7
	0.179	19.8	
REN54E19			809.5
	0.386	48.8	
DR010012B20G10			858.3

unmapped:
DR010006A20G08 best 2-pt REN247L23

CFA26	Theta	cR between marker	cR total
LIPF			0
	0.078	8.1	
REN304J03			8.1
	0.039	3.9	
REN160C23			12
	0.115	12.3	
REN111A03			24.3
	0.019	1.9	
C26.733*			26.2
	0.057	5.9	
BAC_373-E12*			32.1
	0.056	5.8	
FH2130			37.9
	0.104	11	
G07709			48.9
	0.166	18.1	
REN276I22			67
	0.114	12.2	
BAC_381-G4			79.2
	0.058	6	
EST14F2			85.2
	0.087	9.1	
AHTK200			94.3
	0.086	8.9	
REN88N03			103.2
	0.195	21.7	
DR010016A10A12			124.9
	0.053	5.4	
DR010019B20C07			130.3
	0.026	2.6	
EST9C6			132.9
	0.059	6.1	
ADORA2A			139
	0.162	17.6	
BAC_381-B24			156.6
	0.185	20.5	
SLC5A1			177.1
	0.228	25.9	
DGN10			203
	0.184	20.3	
EST6F10			223.3
	0.185	20.5	
REN01O23			243.8
	0.113	11.9	
CRYBB1			255.7
	0.044	4.5	
REN131L06			260.2
	0.197	22	
BAC_375-A6			282.2

	0.02	2	
EST3D5			284.2
	0.019	2	
DR010030A10B12			286.2
	0.058	6	
FH3045			292.2
	0.076	7.9	
REN224K18*			300.1
	0.112	11.9	
C02911			312
	0.045	4.6	
EST26D3			316.6
	0.069	7.2	
PLA2G1B			323.8
	0.02	2	
DR010007A20G06			325.8
	0.044	4.5	
DR010030A20G12			330.3
	0.136	14.7	
DR010020A20H07			345
	0.277	32.4	
EST26H12			377.4
	0.105	11.1	
FH3426			388.5
	0.176	19.3	
BAC_373-G5			407.8
	0.327	39.6	
AHTK211			447.4
	0.275	32.1	
EST23G12			479.5
	0.036	3.7	
P2RX7			483.2
	0.036	3.7	
DTR26.9			486.9
	0.098	10.3	
DR010007A20G11			497.2
	0.184	20.3	
ATP2A2			517.5
	0.207	23.1	
HPD			540.6
	0.243	27.9	
DR010017A21D05			568.5
	0.129	13.9	
DR010021B10F02			582.4
	0.142	15.3	
EST26A2			597.7
	0.121	12.9	
REN179H14			610.6
	0.052	5.4	
REN02C11			616
	0.071	7.4	

REN87D16			623.4
	0.095	10	
REN87O21			633.4
	0.154	16.7	
REN75J06			650.1
	0.095	9.9	
EST16H7			660
	0.149	16.1	
BAC_372-I7*			676.1
	0.102	10.8	
BAC_376-C11			686.9
	0.067	6.9	
C26.420			693.8
	0.066	6.8	
BAC_375-I10			700.6
	0.108	11.4	
REN62M06			712

unmapped:
DR010017B20H12 best 2-pt DR010007A20G06

CFA27	Theta	cR between marker	cR total
DR010011A20G01			0
	0.141	15.3	
REN72K15			15.3
	0.137	14.7	
REN265N18			30
	0.123	13.1	
BAC_373_O6			43.1
	0.076	7.9	
CACNA1C			51
	0.34	41.6	
REN240O14			92.6
	0.059	6.1	
REN181L14			98.7
	0.221	24.9	
TULP3			123.6
	0.104	11	
REN100M16			134.6
	0.124	13.2	
BAC_372_C12			147.8
	0.105	11.1	
SLC6A12			158.9
	0.046	4.7	
DR010011B21D03			163.6
	0.232	26.4	
EST16F6			190
	0.021	2.1	
PEZ6			192.1
	0.02	2.1	
BAC_375_A12			194.2
	0.136	14.7	
REN260D22			208.9
	0.05	5.2	
FH4019*			214.1
	0.135	14.5	
GNB3			228.6
	0.125	13.4	
FH3964*			242
	0.086	9	
CD4			251
	0.044	4.5	
CD9			255.5
	0.09	9.4	
DRPLA			264.9
	0.176	19.3	
DR010017A21D12			284.2
	0.146	15.8	
SLC2A3			300
	0.074	7.7	
DR010017B10D03			307.7

	0.254	29.4	
DR010012A20D08			337.1
	0.202	22.5	
DR010028A10F04			359.6
	0.052	5.3	
FH2346			364.9
	0.026	2.6	
FH3926			367.5
	0.102	10.8	
GRIN2B*			378.3
	0.251	28.9	
REN56C20			407.2
	0.289	34.2	
BAC_372_K21			441.4
	0.174	19.2	
FH3924			460.6
	0.05	5.1	
BAC_376_E21			465.7
	0.182	20.1	
DR010012A20B04			485.8
	0.231	26.3	
DR010025B10A01			512.1
	0.137	14.8	
DR010003000E10			526.9
	0.212	23.9	
FH3338			550.8
	0.143	15.5	
PEZ18			566.3
	0.12	12.8	
BAC_385_G3			579.1
	0.156	17	
FH3221			596.1
	0.05	5.1	
FH3097			601.2
	0.022	2.2	
D04813			603.4
	0.066	6.8	
STS156J06*			610.2
	0.066	6.8	
C27_436			617
	0.17	18.6	
C27_502			635.6
	0.192	21.4	
FH2925			657
	0.091	9.6	
REN65A09			666.6
	0.276	32.3	
EST7A1			698.9
	0.135	14.5	
PTHLH			713.4
	0.141	15.2	

REN277K09			728.6
	0.09	9.4	
EST12E2			738
	0.023	2.3	
EST20D3*			740.3
	0.023	2.3	
LEI002			742.6
	0.091	9.6	
DR010006A20B03			752.2
	0.067	6.9	
FH2831			759.1
	0.022	2.2	
DR010010B20H12			761.3
	0.067	6.9	
BAC_372_E3			768.2
	0.179	19.7	
REN173L15*			787.9
	0.044	4.5	
DR010010A10C11			792.4
	0.347	42.6	
EST14E3			835
	0.218	24.7	
REN304E24			859.7
	0.139	15	
DR010007B20G08			874.7
	0.069	7.1	
EST12E3			881.8
	0.023	2.3	
EST4E5			884.1
	0.068	7	
PEZ16			891.1
	0.068	7	
EST17A5			898.1
	0.069	7.1	
COL2A1			905.2
	0.093	9.7	
REN208N23			914.9
	0.158	17.1	
CFOR12B11			932
	0.182	20	
LALBA			952
	0.092	9.7	
CFOR12B07			961.7
	0.112	11.9	
FH4079			973.6
	0.09	9.4	
REN12H20			983
	0.091	9.6	
C27_442			992.6
	0.045	4.6	
BAC_380_N22			997.2

	0.112	11.9	
K6HF			1009.1
	0.137	14.8	
FH2289			1023.9
	0.047	4.9	
DR010028B20F09			1028.8
	0.164	17.9	
CFOR26G07			1046.7
	0.163	17.8	
DR010028B20H07			1064.5
	0.467	62.8	
AHTK18			1127.3

unmapped:
DR010023B20A05 best 2-pt BAC_372_E3

CFA28	Theta	cR between marker	cR total
AHTK135			0
	0.245	28.1	
DR010005B10C12			28.1
	0.318	38.3	
DR010013B20A02			66.4
	0.197	22	
BAC_372_M11			88.4
	0.109	11.5	
REN51I12			99.9
	0.042	4.3	
DR010013A10B02			104.2
	0.042	4.3	
FH3622			108.5
	0.041	4.2	
EST28H9			112.7
	0.042	4.3	
OAT			117
	0.115	12.2	
EST_CFZ97746			129.2
	0.162	17.7	
REN73I23			146.9
	0.052	5.3	
EST8B4			152.3
	0.052	5.3	
BAC_382_C14			157.6
	0.021	2.1	
BAC_381_B8			159.7
	0.126	13.5	
BAC_381_F10			173.1
	0.065	6.7	
STS314F05			179.9
	0.109	11.6	
EST20A11			191.4
	0.067	6.9	
DR010010A10A12			198.3
	0.067	7	
DR010024B20F02			205.3
	0.154	16.7	
EST27A5			222
	0.156	17	
PNLIP			239
	0.114	12.1	
EST17B6			251.1
	0.16	17.4	
REN207H12			268.5
	0.14	15.1	
REN258F18			283.6
	0.023	2.3	
COL17A1			285.9

	0.046	4.7	
EST3H1			290.6
	0.093	9.8	
ACTR1A			300.4
	0.293	34.6	
BAC_381_F20			335
	0.041	4.2	
FH2758			339.3
	0.16	17.5	
BAC_382_E5			356.7
	0.155	16.9	
D04504			373.6
	0.042	4.3	
REN136E14			377.9
	0.043	4.4	
DR010022B10E06			382.3
	0.043	4.4	
REN196N02			386.7
	0.114	12.1	
DR010026B10A03			398.8
	0.119	12.6	
DR010005A10H02			411.4
	0.071	7.3	
DR010009A10G01			418.8
	0.07	7.2	
DP040002000F07			426
	0.095	10	
EST_CFZ97822			436
	0.047	4.8	
C28_434			440.9
	0.046	4.7	
BAC_376_O7			445.6
	0.068	7	
FH2668			452.6
	0.173	19	
FH3033			471.5
	0.122	13.1	
FH2922			484.6
	0.138	14.9	
DR010014B10B04			499.5
	0.068	7.1	
FH2785			506.5
	0.067	7	
FH2585*			513.5
	0.131	14.1	
REN74M16			527.6
	0.486	66.6	
DR010028B20G04			594.2
	0.352	43.4	
FH2208			637.6
	0.102	10.8	

BAC_381_M21			648.4
	0.129	13.8	
RBP4			662.2
	0.147	16	
BAC_373_M21			678.2
	0.021	2.1	
EST23A6			680.3
	0.135	14.5	
DTR28_14			694.8
	0.182	20	
FH3963			714.9
	0.024	2.4	
REN147D22			717.3
	0.122	13	
BAC_385_H17			730.2
	0.203	22.7	
EST12F11			753
	0.117	12.5	
REN205C12			765.4
	0.118	12.6	
DR010022B10C09			778
	0.04	4.1	
DR010027A20B03			782.1
	0.193	21.5	
BAC_382_A20			803.6
	0.116	12.3	
AHTH197REN			815.9
	0.078	8.1	
DOPRH07			824
	0.116	12.4	
DR010023A10B07			836.4
	0.132	14.1	
DR010004000A05			850.5
	0.055	5.7	
DP010004000A03			856.2
	0.209	23.5	
DR010005A10A08			879.6
	0.316	38	
FH2759			917.7
	0.315	37.8	
DR010026B20F03			955.5
	0.285	33.6	
C28_176			989.1

unmapped:
DR010020B20A05 best 2-pt REN196N02

CFA29	Theta	cR between marker	cR total
DR010016B20H06			0
	0.145	15.7	
REN01C15			15.7
	0.138	14.8	
DR010018B20F02			30.5
	0.136	14.7	
CFOR16H04			45.2
	0.114	12.1	
REN187J21			57.3
	0.068	7.1	
REN74A15			64.4
	0.067	7	
AHTH235REN			71.3
	0.204	22.9	
FH3366			94.2
	0.089	9.4	
EST5B10			103.5
	0.088	9.2	
BAC_385_E23			112.8
	0.089	9.3	
FH2177			122.1
	0.069	7.2	
FH3082			129.3
	0.119	12.7	
DTR29_21			142
	0.227	25.8	
FH1007			167.7
	0.251	28.9	
C29_002			196.7
	0.047	4.8	
BAC_373_C7			201.5
	0.123	13.2	
BAC_382_E23			214.7
	0.266	30.9	
DR010019B20E04			245.6
	0.223	25.3	
REN169O18			270.8
	0.026	2.6	
REN128M05			273.5
	0.052	5.4	
FH2385			278.9
	0.08	8.4	
REN86C11			287.2
	0.119	12.6	
FH3003			299.9
	0.123	13.1	
TRAM			313
	0.149	16.1	
BAC_372_E20			329.1

	0.024	2.5	
IMPA1			331.5
	0.024	2.4	
DR010022A20G11			333.9
	0.047	4.8	
STS189F10			338.7
	0.116	12.3	
BAC_376_C7			351
	0.092	9.6	
FH3582			360.6
	0.092	9.6	
REN164F23			370.3
	0.111	11.8	
CPH9			382
	0.182	20	
REN45F03			402.1
	0.137	14.8	
FH4066			416.8
	0.158	17.2	
BAC_416_N2			434.1
	0.16	17.5	
STS246A16			451.5
	0.198	22.1	
C29_188			473.6
	0.15	16.3	
REN165M10			489.9
	0.254	29.2	
FH2328			519.1
	0.173	19	
DR010024A10F09			538.1
	0.184	20.3	
C05302			558.4
	0.128	13.7	
DR010017A21B04			572.1
	0.158	17.2	
AHTK40			589.3
	0.129	13.8	
REN263H24			603.1
	0.064	6.6	
REN251L21			609.7
	0.067	7	
REN52D08			616.7
	0.288	33.9	
FH3878			650.6
	0.195	21.7	
ASPH			672.4
	0.088	9.2	
REN170M10			681.6
	0.064	6.6	
BAC_376_A15			688.2
	0.208	23.3	

FH3443			711.6
	0.348	42.7	
DINRA2			754.3
	0.19	21.1	
FH2364			775.4
	0.139	15	
DR010019A20E10			790.4
	0.066	6.9	
DR010029A20D05			797.3
	0.154	16.8	
STS38E18			814.1
	0.149	16.1	
EST19G4			830.2
	0.165	18	
BAC_385_D19			848.2
	0.018	1.8	
FH2952			850
	0.036	3.7	
FH2609			853.7
	0.282	33.1	
REN252J07			886.8

CFA30	Theta	cR between marker	cR total
DR010030A10A02			0
	0.283	33.3	
DR010013B10A02			33.3
	0.243	27.8	
DR010027B10C11			61.1
	0.142	15.3	
FH3053*			76.4
	0.077	8	
LEI_1F11			84.4
	0.027	2.7	
EST25G10			87.1
	0.055	5.6	
CYP1A1			92.7
	0.209	23.5	
AHTH134REN			116.2
	0.071	7.4	
FH3950*			123.6
	0.023	2.3	
EST20D2			125.9
	0.046	4.7	
DR010029A10G05			130.6
	0.096	10.1	
BAC_385_O23			140.7
	0.122	13.1	
FH3632			153.8
	0.073	7.6	
RAB11A			161.4
	0.123	13.1	
REN50N18			174.5
	0.097	10.2	
BAC_376_C17			184.7
	0.121	12.9	
EST27D12			197.6
	0.172	18.9	
EST10E8			216.5
	0.076	7.9	
FH2290			224.4
	0.1	10.6	
BAC_374_C13			235
	0.075	7.8	
DR010024A10C11			242.8
	0.175	19.2	
REN105I08			262
DR010007B10E09			0
	0.292	34.5	
DR010013A10A02			34.5
	0.219	24.7	
DR010006B20A06			59.2

	0.067	6.9	
EST28C7			66.1
	0.107	11.3	
DR010027B20H03			77.5
	0.104	10.9	
STS173M16			88.4
	0.124	13.2	
REN248F14			101.7
	0.209	23.4	
DR010028A10H11			125.1
	0.209	23.4	
EST7C5			148.5
	0.146	15.8	
FBN1			164.3
	0.121	12.9	
BAC_382_A4			177.2
	0.078	8.2	
BAC_373_I9			185.4
	0.096	10.1	
C02806			195.5
	0.23	26.1	
BAC_382_G12			221.6
	0.104	11	
BAC_381_K15			232.6
	0.154	16.8	
DR010013B20C04			249.4
	0.047	4.8	
REN89K14			254.2
	0.258	29.8	
DR010022B10F06			284
	0.172	18.9	
BAC_381_C6			302.9
	0.141	15.2	
BAC_381_L11			318.1
	0.079	8.2	
REN292B07			326.3
	0.144	15.6	
DR010012B20D04			341.9
	0.058	6	
DR010006B10F02			347.9
	0.086	9	
REN240E16			356.9
	0.059	6.1	
REN51C16			363
	0.216	24.3	
BAC_381_L8			387.3
	0.046	4.7	
FH2050			392
	0.166	18.2	
REN103E21			410.2
	0.086	9	

FH3761			419.2
	0.152	16.5	
DTR30_30			435.7
	0.078	8.1	
CPH1			443.8
	0.134	14.4	
FH3489			458.2
	0.127	13.5	
REN187M05			471.8
	0.121	12.9	
ACTC			484.7
	0.318	38.2	
DR010005A10A07			522.9

unmapped:
DR010024B20A08 best 2-pt CPH1
DR010005A10A12 best 2-pt DR010013B20C04

CFA31	Theta	cR between marker	cR total
REN50I04			0
	0.112	11.9	
FH2712*			11.9
	0.043	4.4	
AHTH246			16.3
	0.134	14.3	
DR010006B10F07			30.6
	0.242	27.6	
CRYAA			58.2
	0.252	29	
EST12C5			87.2
	0.224	25.4	
BAC_375_O16			112.6
	0.227	25.7	
DR010023B10H12			138.3
CBR3			0
	0.185	20.5	
SLC5A3			20.5
	0.273	31.9	
SOD1			52.4
	0.111	11.8	
REN110K04			64.2
	0.175	19.3	
DR010009B20E10			83.5
	0.077	8	
DR010020B11G08			91.5
	0.056	5.8	
STS148L07			97.3
	0.178	19.7	
EST12H2			117
	0.159	17.3	
FH2239			134.3
	0.115	12.2	
DR010017B20H10			146.5
	0.154	16.7	
APP			163.2
	0.094	9.9	
REN109A13			173.1
	0.076	7.9	
BAC_381_B14			181
	0.133	14.3	
REN239G04			195.3
	0.075	7.8	
BAC_373_A14			203.1
	0.073	7.6	
C01003			210.7
	0.146	15.8	
BAC_381_H10			226.5

	0.203	22.6	
DR010026B10F01			249.1
	0.129	13.8	
BAC_376_L23			262.9
	0.074	7.7	
REN109B10			270.6
	0.054	5.6	
FH2582			276.2
	0.018	1.8	
STS265M12			278
	0.055	5.6	
REN265M13			283.6
	0.284	33.4	
BAC_372_E2			317
	0.2	22.3	
REN298O02			339.3
	0.137	14.8	
REN43H24			354.1
	0.135	14.5	
REN52L05			368.6
	0.184	20.3	
BAC_376_G11			388.9
	0.044	4.5	
REN41K19			393.4
	0.022	2.3	
RVC11			395.7
	0.303	36.1	
DR010014B20G10			431.8
	0.164	17.9	
DR010007A20E07			449.7
	0.163	17.8	
FH3812			467.5
	0.047	4.8	
REN177K14			472.3

unmapped:
DR010026B10B04 best 2-pt FH2239
DR010005B20G08 best 2-pt REN52L05

CFA32	Theta	cR between marker	cR total
FH3294			0
	0.199	22.2	
EST12D6			22.2
	0.126	13.4	
REN286D15			35.6
	0.231	26.2	
REN187G01			61.8
	0.216	24.3	
FH4036			86.1
	0.152	16.5	
AHT127			102.6
	0.176	19.4	
BAC_375_A15			122
	0.029	2.9	
EST26A4_T			124.9
	0.233	26.5	
UOR0421			151.4
	0.13	14	
BAC_375_H3			165.4
	0.226	25.6	
BAC_416_L14			191
	0.055	5.6	
REN111K07			196.6
	0.203	22.7	
FH3635			219.3
	0.158	17.2	
FH3236			236.5
	0.105	11.1	
D03908			247.6
	0.133	14.2	
BAC_375_C22			261.8
	0.083	8.6	
EST19G12			270.4
	0.109	11.6	
FH3744			282
	0.103	10.9	
BAC_376_P17			292.9
	0.155	16.9	
FH2875			309.8
	0.135	14.5	
SPP1			324.3
	0.081	8.5	
BAC_382_A12			332.8
	0.235	26.8	
REN41D20			359.6
	0.356	44.1	
DR010017A10B02			403.7
	0.111	11.8	
CPH2			415.5

	0.083	8.6	
BAC_381_L10			424.1
	0.058	5.9	
EST20H5*			430
	0.029	2.9	
BAC_373_K21			432.9
	0.086	9	
AHTB327REN			441.9
	0.111	11.8	
EST26H9			453.7
	0.111	11.8	
DR010015B20D12			465.5
	0.092	9.7	
DR010010A20F04			475.2

CFA33	Theta	cR between marker	cR total
DR010009A20E07			0
	0.216	24.4	
REN211M13			24.4
	0.212	23.8	
FH2165			48.2
	0.024	2.4	
DR010023A20D08			50.6
	0.048	4.9	
EST18G7			55.5
	0.249	28.7	
ADCY5			84.2
	0.118	12.6	
AHTK336			96.8
	0.164	17.9	
CD86			114.7
	0.139	15	
EST13C8			129.7
	0.176	19.4	
REN291M20			149.1
	0.178	19.6	
FH1001			168.7
	0.068	7	
DR010003000G06			175.7
	0.022	2.3	
EST28H2-REN186B	12		178
	0.067	6.9	
DR010001000F11			184.9
	0.134	14.3	
DP030002000C07			199.2
	0.067	6.9	
CD80			206.1
	0.023	2.3	
EST23D7			208.4
	0.068	7	
REN98D17			215.4
	0.045	4.6	
BAC_375-M14			220
	0.045	4.6	
BAC_376-H21			224.6
	0.089	9.3	
BAC_373-M5			233.9
	0.022	2.2	
FH2815*			236.1
	0.11	11.7	
EST5E9			247.8
	0.115	12.2	
BAC_376-A19			260
	0.069	7.1	
FH2361			267.1

	0.133	14.3	
DR010026B20F12			281.4
	0.135	14.6	
DR010001000E02			296
	0.144	15.5	
EST14D8			311.5
	0.024	2.5	
BAC_376-F9*			314
	0.073	7.6	
BAC_373-G19			321.6
	0.082	8.5	
BAC_382-M4			330.1
	0.291	34.5	
DP050002000E07			364.6
	0.297	35.2	
REN236D19			399.8
	0.137	14.8	
BAC_373-C8			414.6
	0.118	12.6	
BAC_381-P22			427.2
	0.097	10.2	
FH3608*			437.4
	0.172	18.9	
DR010026B20A01			456.3
	0.223	25.3	
BAC_376-O11			481.6
	0.255	29.5	
REN153J07			511.1
	0.128	13.7	
EST16H11			524.8
	0.151	16.3	
DR010024A20G01			541.1
	0.169	18.5	
FH2965			559.6
	0.098	10.3	
REN112D03			569.9
	0.189	21	
BAC_381-B16			590.9
	0.193	21.5	
DOPRX09			612.4
	0.107	11.4	
BAC_375-E8*			623.8
	0.084	8.8	
BAC_375-A24			632.6
	0.066	6.8	
REN233M18			639.4
	0.243	27.8	
FH2790			667.2
	0.262	30.4	
DR010013B10B09			697.6

CFA34	Theta	cR between marker	cR total
REN314H10			0
	0.069	7.2	
REN238D23			7.2
	0.116	12.3	
REN109E10			19.5
	0.045	4.6	
REN44K21			24.1
	0.044	4.5	
DR010004000G11			28.6
	0.043	4.4	
REN40F11			32.9
	0.131	14.1	
DR010012B20H05			47
	0.135	14.5	
REN234E12			61.5
	0.044	4.5	
BAC_376_B23			66
	0.065	6.7	
FH3836			72.7
	0.066	6.8	
BCHE			79.5
	0.067	7	
FH3913			86.4
	0.044	4.5	
FH3718			91
	0.087	9.1	
REN85F20			100.1
	0.043	4.4	
EST20G7			104.6
	0.022	2.2	
BAC_382_C18			106.8
	0.022	2.2	
EST19E1			109
	0.089	9.4	
BAC_373_C15			118.4
	0.09	9.5	
BAC_381_E7*			127.9
	0.066	6.9	
BAC_375_K12*			134.7
	0.086	9	
REN243O23			143.7
	0.105	11.1	
BAC_373_K10*			154.8
	0.185	20.5	
EST6B1			175.3
	0.185	20.5	
FH2377			195.8
	0.144	15.5	
DR010025B10H01			211.3

	0.04	4.1	
FH3060			215.4
	0.02	2	
BAC_374_K23			217.4
	0.04	4.1	
REN266K05			221.5
	0.062	6.4	
REN229C09			227.9
	0.197	22	
DR010018A10A01			249.9
	0.203	22.6	
SST			272.6
	0.247	28.4	
DR010030B20G10			301
	0.37	46.2	
AHTH131REN			347.2
	0.079	8.3	
REN174M24			355.4
	0.064	6.6	
EST26B6*			362.1
	0.128	13.7	
IRX1			375.8
	0.068	7.1	
BAC_374_I15			382.9
	0.022	2.3	
BAC_376_G23			385.1
	0.045	4.6	
REN125M11			389.7
	0.099	10.4	
REN109L16			400.2
	0.232	26.5	
BAC_382_G2			426.6
	0.186	20.5	
FH2870			447.2
	0.201	22.4	
REN301L03			469.6
	0.18	19.8	
REN160M18			489.4
	0.205	23	
FH3820			512.3
	0.088	9.2	
FH3721			521.5
	0.277	32.5	
DR010005B10G08			554

unmapped:
DP010005000C02 best 2-pt FH3820

CFA35	Theta	cR between marker	cR total
DR010009A20D03			0
	0.212	23.8	
REN112C08			23.8
	0.078	8.2	
CFOR28C06P			32
	0.098	10.4	
EST11G3			42.4
	0.213	24	
FH3770			66.4
	0.202	22.5	
DR010025B20D01			88.9
	0.104	11	
REN94K23			99.9
	0.155	16.8	
BAC_382_A7			116.7
	0.065	6.7	
REN166C14			123.4
	0.039	4	
REN114N08			127.4
	0.02	2	
REN172L08			129.4
	0.239	27.4	
REN214H22			156.8
	0.09	9.4	
REN103P14			166.2
	0.089	9.4	
REN157J09			175.6
	0.08	8.3	
REN103G02			183.9
	0.025	2.6	
D02001			186.5
	0.025	2.6	
FH2791			189.1
	0.051	5.3	
FH3991			194.4
	0.084	8.7	
DR010006A10E01			203.1
	0.148	16	
REN282I22			219.1
	0.063	6.5	
REN256I01			225.6
	0.063	6.5	
BAC_372_M18*			232.1
	0.151	16.4	
EDN1			248.5
	0.14	15.1	
REN01G01			263.6
	0.205	23	
DR010017A21A06			286.6

	0.234	26.7	
AHTH53BREN			313.3
	0.043	4.4	
BAC_376_K15			317.7
	0.317	38.2	
DR010029B20E03			355.9
	0.122	13	
EST4B9			368.9

CFA36	Theta	cR between marker	cR total
BAC_382_I11			0
	0.081	8.5	
EST5B1			8.5
	0.184	20.4	
EST13A11			28.8
	0.045	4.6	
DR010021A10A04			33.4
	0.038	3.9	
EST13G8			37.3
	0.019	1.9	
EST13H3			39.2
	0.019	1.9	
EST15A5			41.1
	0.097	10.1	
DTR36_3			51.2
	0.134	14.4	
BAC_381_O16			65.6
	0.067	6.9	
BAC_372_K19			72.5
	0.06	6.2	
D03805			78.7
	0.079	8.3	
REN103I14			87
	0.061	6.3	
G03111			93.3
	0.082	8.6	
EST_CFZ97826			101.8
	0.061	6.3	
BAC_374_O3			108.2
	0.046	4.7	
FH3865			112.9
	0.117	12.5	
TTN*			125.4
	0.104	11	
FH2998			136.4
	0.083	8.7	
DR010017B20D06			145
	0.215	24.2	
DR010017B20E08			169.2
	0.143	15.5	
BAC_375_M4			184.7
	0.138	14.9	
REN308K23			199.5
	0.116	12.4	
EST27C8			211.9
	0.115	12.3	
EST24B7			224.2
	0.18	19.9	
EST19A10			244.1

	0.136	14.6	
EST6H1			258.7
	0.036	3.6	
BAC_381_A3			262.3
	0.09	9.4	
BAC_385_L23			271.8
	0.018	1.8	
REN179H15			273.6
	0.122	13.1	
REN85C13			286.7
	0.149	16.1	
FH3767			302.8
	0.282	33.1	
REN313L08			335.9
	0.123	13.1	
AHTH31REN			349
	0.172	18.9	
BAC_382_K16			367.9
	0.186	20.6	
EST25A10			388.5
	0.019	1.9	
BAC_382_I12			390.4
	0.019	1.9	
FH2611			392.3
	0.09	9.4	
REN250G10			401.8
	0.192	21.3	
EST4F12			423.1
	0.273	31.9	
REN106I07			455
	0.139	14.9	
BAC_375_J19			469.9
	0.22	24.9	
REN253E24			494.8
	0.077	8	
FH3090			502.8
	0.11	11.6	
BAC_375_J11			514.5
	0.112	11.9	
FH3296			526.4
	0.088	9.2	
FH3872			535.6
	0.156	17	
EST9E7			552.6
	0.216	24.3	
DR010005B20H11			576.9

unmapped:
DR010017B20C01 best 2-pt EST13G8

CFA37	Theta	cR between marker	cR total
AHTH174			0
	0.268	31.2	
DR010007B10B04			31.2
	0.195	21.7	
DTR37_25			52.9
	0.29	34.3	
C00603			87.3
	0.106	11.2	
FH3449			98.5
	0.044	4.5	
REN75L05			102.9
	0.044	4.5	
AHT135			107.4
	0.067	6.9	
FH2387			114.3
	0.044	4.5	
BAC_376_G19*			118.8
	0.022	2.2	
BAC_381_P1			121.1
	0.09	9.4	
REN03C19			130.5
	0.068	7	
SLC11A1			137.5
	0.183	20.2	
REN41P15			157.7
	0.022	2.3	
BAC_372_C15			159.9
	0.166	18.1	
BAC_372_G9			178
	0.143	15.4	
FN1			193.4
	0.069	7.2	
FH2532			200.6
	0.275	32.2	
REN67C18			232.8
	0.254	29.3	
DR010007B20E04			262.1
	0.2	22.3	
BAC_374_E1			284.4
	0.117	12.5	
AHT133			296.9
	0.084	8.8	
REN105M20			305.7
	0.042	4.3	
DR010030B20B02			310
	0.022	2.2	
FH3985			312.2
	0.053	5.4	
FH2708			317.6

	0.079	8.2	
FH3207			325.8
	0.022	2.2	
BAC_381_J22*			328
	0.021	2.2	
EST22D1			330.1
	0.065	6.7	
FH3423			336.8
	0.219	24.7	
EST11F7			361.6
	0.049	5	
CD28*			366.6
	0.068	7.1	
EST7G6			373.6
	0.067	7	
REN157D13			380.6
	0.091	9.5	
DR010008A11E11			390.1
	0.093	9.8	
BAC_375_J13			399.9
	0.069	7.2	
C37_359			407.1
	0.023	2.3	
REN134D15			409.5
	0.023	2.4	
H10101			411.8
	0.255	29.5	
FH2713			441.3
	0.154	16.7	
EST23H7			458.1
	0.192	21.3	
REN149A19			479.3
	0.061	6.3	
REN131E13			485.7
	0.02	2.1	
BAC_372_A24			487.7
	0.127	13.6	
BAC_382_C2			501.3
	0.164	17.9	
BAC_372_K23			519.2
	0.248	28.5	
FH3272			547.7
	0.115	12.2	
C37_172			559.9
	0.094	9.9	
EST14C7			569.8
	0.092	9.7	
AHTH128REN			579.5
	0.145	15.7	
BAC_372_E23			595.2
	0.109	11.6	

EST8H9			606.8
	0.322	38.9	
DR010007A20C08			645.7
	0.426	55.5	
DR010009A20A10			701.2

CFA38	Theta	cR between marker	cR total
DR010028B10B06			0
	0.216	24.3	
DR010004000G02			24.3
	0.138	14.8	
DR010006A20A09			39.1
	0.158	17.2	
FCER1A			56.3
	0.026	2.6	
CFOR10H06			58.9
	0.075	7.8	
AHTH91			66.7
	0.048	4.9	
CFOR16E08			71.6
	0.273	31.9	
DR010021A20A11			103.5
	0.025	2.6	
BAC_373_M6			106.1
	0.05	5.1	
REN164E17			111.2
	0.124	13.2	
BAC_385_D9			124.4
	0.098	10.3	
REN86G15			134.7
	0.074	7.7	
REN109O13			142.4
	0.08	8.3	
FH3399			150.7
DR010021B20D02			0
	0.241	27.6	
REN02C20			27.6
	0.13	13.9	
REN312K09			41.5
	0.031	3.1	
BAC_375_J3*			44.7
	0.128	13.6	
D03821			58.3
	0.164	17.9	
BAC_381_G23			76.2
	0.109	11.5	
BAC_381_B23			87.7
	0.167	18.3	
BAC_376_N19			106
	0.256	29.6	
BAC_381_B18			135.6
	0.155	16.9	
BAC_372_C23			152.4
	0.049	5	
FH2766			157.4

	0.074	7.7	
EST5G8			165.1
	0.048	4.9	
EST20E7			170.1
	0.07	7.2	
PIK3C2B			177.3
	0.442	58.4	
ACTB_L			235.7

CFAX	Theta	cR between marker	cR total
EST16E3			0
	0.112	11.9	
CFOR16B11*			11.9
	0.057	5.9	
GDI1			17.8
	0.356	43.9	
REN75A05			61.7
	0.118	12.5	
BAC_381-A6			74.3
	0.125	13.3	
F9			87.6
BAC_385-H23			0
	0.152	16.5	
REN143I17			16.5
	0.099	10.4	
BAC_381-P2			26.9
	0.208	23.3	
REN130F03			50.2
	0.159	17.4	
CHM			67.6
	0.314	37.6	
PGK1			105.2
	0.159	17.4	
ATP7A			122.6
	0.231	26.3	
BAC_375-O19			148.9
	0.114	12.1	
REN307M14			161
	0.45	59.8	
D04614			220.8
	0.04	4.1	
EST15G11			224.9
	0.222	25.1	
REN185C11			250
	0.104	10.9	
DR010024A10H02			260.9
DR010021B20D08			0
	0.32	38.5	
BAC_375-C10			38.5
	0.11	11.7	
EST8D8			50.2
	0.181	20	
BAC_381-P8			70.2
	0.094	9.9	
DR010005A20B10			80.1
	0.163	17.8	
ALAS2			97.9
	0.242	27.7	

BAC_372-I20			125.6
	0.233	26.5	
REN296K08			152.1
	0.03	3.1	
FH3027*			155.2
	0.109	11.6	
SYN1			166.8
	0.112	11.9	
FH1024			178.7
	0.079	8.2	
DR010008A11E03			186.9
	0.126	13.4	
USP11			200.3
	0.391	49.6	
DR010019B20H03			249.9
	0.161	17.5	
REN172J16			267.4
	0.129	13.8	
FH1020			281.2
	0.129	13.8	
FH2997			295
	0.159	17.3	
CUX30001			312.3
	0.163	17.8	
FH2916			330.1
	0.032	3.3	
CUX40002			333.4
	0.139	15	
FH2548			348.4
	0.037	3.8	
DMD			352.2
	0.038	3.9	
BAC_376-P3			356.1
	0.175	19.3	
BAC_375-K19			375.4
	0.041	4.1	
BCMP1			379.5
	0.035	3.6	
BAC_385-G21			383.1
	0.281	33	
BAC_374-A19			416.1
	0.172	18.8	
FH3997			434.9
	0.071	7.4	
FH2985*			442.3
	0.17	18.7	
REN101G16			461
	0.083	8.7	
C00304			469.7
	0.036	3.7	
DR010027B10B05			473.4
	0.216	24.4	

EST11E11			497.8
	0.216	24.4	
DR010024B20C02			522.2
	0.14	15.1	
DR010030A10G12			537.3
	0.098	10.3	
PDHA1			547.6
	0.2	22.4	
REN230I20			570
	0.105	11.1	
RAB9A			581.1
	0.159	17.3	
EST11F3*			598.4

CFAY	Theta	cR between marker	cR total
AF005414			0
	0.065	6.7	
SRY			6.7
	0.447	59.3	
DGN6			66
	0.253	29.2	
REN44K10			95.2
	0.2	22.3	
REN147N10			117.5
	0.084	8.7	
REN197E16			126.2
	0.102	10.7	
DR010022B10A03			136.9
	0.07	7.3	
DR010014A20D07			144.2
	0.231	26.3	
DR010006B10E05			170.5
BAC_373_G16			0
	0.261	30.2	
AF005413			30.2
	0.108	11.4	
AF192268			41.6