

Supplemental Table 1. Radiation hybrid maps of each domestic cat autosome and X chromosome, and comparative maps with the human (Hsa) and dog genomes. Coordinates highlighted in blue indicate "out of place" singletons that were not used to define HSBs. Red arrows indicate out of place markers that are moved to define a HSB. Cat markers with no significant hits to the human (Build35) or dog (CanFam1) genome assemblies are filled in

Cat Chrom.	Marker	Map Pos.	LOD	type	bin interval	Hsa35	Hsa35 Start	Hsa35 End	Dog Chr.	Dog Start	Dog End
A1	39063636	--	--	blinded	[p-terminal - FCA752]	13	24,322,471	24,322,572	25	21,639,647	21,639,771
A1	LG_19_B0	0.0	1.7	placed		13	27,535,216	27,535,988	25	19,591,521	19,592,045
A1	FCA753	57.8	1.0	placed		13	21,861,903	21,862,186	25	19,183,917	19,184,240
A1	FCA1053	80.3	4.5	frame		13	21,669,784	21,670,054	25	16,559,502	16,559,625
A1	FCA752	102.9	4.5	frame		13	25,404,466	25,404,995	25	9,315,380	9,315,701
A1	LG4_A10	113.6	4.6	frame		13	27,322,874	27,325,756	25	14,790,911	14,796,324
A1	FCA214	117.1	2.7	placed		13	28,964,557	28,964,659	25	13,366,537	13,366,643
A1	RD114-63	124.4	--	--							
A1	FCA755	--	--	blinded	[LG4_A10 - UBL3]	13	28,964,725	28,964,860	25	13,366,470	13,367,022
A1	FCA754	--	--	blinded	[LG4_A10 - UBL3]	13	31,533,235	31,767,978	25	11,120,495	11,120,683
A1	BRCA2	--	--	blinded	[LG4_A10 - UBL3]	13	31,787,616	31,871,805	25	10,713,102	10,774,859
A1	UBL3	135.1	4.2	frame		13	29,239,019	29,239,446	25	13,151,184	13,151,620
A1	FCA721	154.9	1.3	frame		13	37,026,408	37,028,851	25	6,185,041	6,185,544
A1	38911647	167.1	1.3	frame		13	38,179,779	38,179,998	25	5,215,527	5,215,206
A1	39040528	176.4	2.0	frame		13	40,265,310	40,265,420	25	3,467,378	3,466,999
A1	FCA274	196.5	3.9	frame							
A1	LG9_9_D03	220.1	3.7	frame		13	48,987,510	48,987,924	22	5,156,745	5,157,620
A1	CHDC1	247.8	3.7	frame		13	46,223,180	46,223,432	22	7,504,775	7,598,302
A1	FCA176	--	--	blinded	[CHDC1 - 39005838]	13	44,013,185	44,013,431	22	30,334,140	30,334,249
A1	LG9_10_E07	272.6	3.1	frame		13	43,851,696	43,852,157	22	9,485,198	9,485,660
A1	39010395	286.3	3.1	frame		13	42,816,661	42,816,924	22	10,436,420	10,436,684
A1	39005838	299.4	1.8	frame		13	52,504,090	52,504,471	22	12,996,777	12,997,158
A1	F141	311.5	1.8	frame		13	52,942,900	52,946,915	22	13,405,118	13,413,744
A1	38995322	326.5	2.4	frame		13	54,240,958	54,240,504	22	14,517,958	14,517,291
A1	39089120	336.2	4.8	frame		13	55,885,175	55,885,348	22	15,821,195	15,821,555
A1	FCA280	--	--	blinded	[38995322 - LG9-13_H03]	13	58,056,504	58,057,025	22	17,545,302	17,545,602
A1	LG9-13_H03	345.8	5.9	frame		13	60,305,564	60,306,889	22	15,589,407	15,589,788
A1	FCA756	406.3	2.0	placed							
A1	LG29_E04	451.5	5.3	frame		13	64,248,688	64,248,861	22	23,119,140	23,119,593
A1	F42	461.1	1.6	frame		13	64,392,058	64,408,950	22	23,212,439	23,218,845
A1	FCA499	470.5	1.6	frame		13	66,701,893	66,702,315	22	25,141,709	25,142,147
A1	FCA757	501.1	2.0	placed		13	73,167,628	73,416,310	22	30,596,470	30,596,629
A1	KLF12	506.9	1.5	frame		13	73,166,746	73,166,896	22	30,640,251	30,640,784
A1	LG9-13_C09	518.1	0.9	frame		13	78,151,157	78,151,273	22	30,630,431	30,630,431
A1	LG9-14_B04	524.0	1.5	frame		13	74,347,644	74,348,836	22	31,677,486	31,677,954
A1	FBXL3A	565.8	1.4	frame		13	76,477,505	76,477,617	22	33,515,688	33,515,997
A1	EDNRB	585.7	1.4	frame		13	77,367,616	77,447,665	22	34,350,983	34,372,554
A1	38994478	611.8	1.5	frame		13	81,065,514	81,065,752	22	37,294,818	37,294,410
A1	FCA229	637.1	0.9	frame		13	85,266,119	85,268,644	22	40,813,235	40,813,672
A1	FCA758	642.1	2.4	placed		13	86,514,307	86,516,352	22	41,884,591	41,888,859
A1	FCA761	676.4	2.8	frame		13	95,094,967	95,095,906	22	49,243,853	49,244,182
A1	FCA760	705.9	2.8	frame		13	91,983,517	91,983,567	22	51,347,469	51,349,700
A1	LG26_F10	727.1	5.6	frame		13	99,261,130	99,262,234	22	52,752,658	52,754,859
A1	FCA024	742.1	4.8	frame		13	100,406,869	100,406,869	22	53,735,256	53,735,464
A1	38994385	756.9	4.8	frame		13	101,761,800	101,761,953	22	54,652,327	54,652,708
A1	FCA762	777.8	1.9	frame		13	103,333,578	103,333,761	22	56,792,787	56,794,980
A1	LG9-16_E09	797.7	1.9	frame		13	105,447,003	105,447,807	22	58,080,218	58,080,750
A1	39088777	848.5	7.3	placed		13	108,877,700	108,877,854	22	60,752,534	60,752,807
A1	FCA218	869.8	8.9	placed		13	110,691,117	110,716,028	22	62,082,984	62,088,782
A1	F10	897.3	6.6	placed		13	112,825,146	112,851,842	22	63,407,136	63,418,172
A1	LAMP1	901.9	5.5	placed		13	112,999,523	113,025,742	22	63,513,854	63,516,472
A1	39015313	916.1	4.9	placed		13	113,766,853	113,766,946	22	63,920,393	63,920,308
A1	39060981	1089.6	5.7	frame		1	224,768,997	224,769,196	14	3,278,571	3,278,867
A1	FCA763	1098.8	4.8	frame		13	113,924,949	113,925,306	16	14,541,575	14,542,058
A1	FCA566	1108.0	1.4	frame							
A1	GUK1	1114.8	1.4	frame		1	224,634,520	224,643,386	14	3,388,084	3,370,414
A1	GNB2L1	1136.4	6.1	frame		5	180,596,535	180,603,491	11	3,429,100	3,433,500
A1	39011799	1177.5	6.7	frame		5	177,756,476	177,756,546	11	8,792,443	8,792,606
A1	39025064	1196.5	3.7	frame		5	114,046,233	114,046,285	11	7,370,721	7,371,017
A1	39061017	1207.3	2.4	frame		5	116,132,205	116,132,394	11	5,544,302	5,544,670
A1	LG9-13_E03	1212.6	1.9	placed		5	114,786,258	114,786,625	11	6,812,215	6,812,596
A1	LG_17_S33	1233.2	2.4	frame							
A1	39015632	1293.3	6.6	frame		5	122,233,563	122,233,706	11	14,084,850	14,084,619
A1	FCA090	1308.6	2.1	frame		5	122,909,226	122,979,039	11	14,953,338	14,953,450
A1	FCA722	1313.5	0.5	placed		5	124,095,833	124,098,099	11	15,748,366	15,748,694
A1	FCA1054	1318.6	2.1	frame		5	124,096,833	124,097,083	11	15,748,366	15,748,694
A1	FCA723	1354.4	2.2	frame		5	125,526,573	125,526,673	11	16,875,459	16,875,863
A1	39060502	1358.7	2.2	frame		5	127,013,023	127,013,393	11	18,106,964	18,106,736
A1	IL4	1389.0	1.2	placed		5	132,037,577	132,046,269	11	22,339,786	22,348,570
A1	IL5	1393.3	3.3	frame		5	131,905,408	131,905,495	11	22,192,586	22,194,169
A1	UBE2B	1404.0	2.2	placed		5	133,754,064	133,754,368	11	23,905,292	23,905,727
A1	LG_19_B05	1409.0	0.3	frame		5	133,127,517	133,135,808	11	23,356,918	23,361,989
A1	LG34_E12	1414.1	2.5	placed		5	133,809,100	133,809,362	11	23,954,847	23,955,217
A1	FCA764	1428.2	0.6	frame		5	136,113,658	136,113,709	11	25,920,760	25,921,056
A1	FCA083	1436.7	0.6	frame		5	136,861,968	137,099,547	11	26,716,847	26,717,059
A1	LG25_C09	1477.8	1.7	frame		5	141,215,147	141,215,274	2	37,415,485	37,415,657
A1	GNP1	1511.1	1.7	frame		5	141,365,420	141,372,802	2	37,540,159	37,540,356
A1	425	1516.4	4.2	frame		5	141,801,807	141,801,978	2	37,922,032	37,922,227
A1	39077768	1519.5	1.3	placed		5	142,367,060	142,367,288	2	38,445,182	38,444,970
A1	39082291	1528.9	4.2	frame		5	143,634,769	143,634,888	2	39,600,425	39,600,059
A1	FCA765	1547.4	2.3	frame		5	55,608,904	55,609,021	2	44,049,845	44,050,061
A1	LCC345651	1553.1	2.6	placed		5	56,813,892	56,814,034	2	45,128,111	45,128,280
A1	39008620	1561.4	2.3	frame		5	57,571,370	57,571,513	2	45,802,424	45,802,122
A1	PPAP2A	1572.4	1.5	frame		5	54,756,561	54,756,682	2	43,338,089	43,338,549
A1	DKFZp761C169	--	--	blinded	[PPAP2A - CKN1]	5	56,595,445	56,595,496	2	44,929,518	44,930,010
A1	FLJ23654	1577.8	3.0	placed		5	145,422,254	145,422,525	2	41,093,755	41,094,033
A1	FCA766	1588.5	1.5	frame		5	145,114,120	145,115,668	2	40,817,363	40,817,661
A1	CKN1	1607.9	2.1	frame		5	60,222,472	60,222,667	2	48,114,636	48,126,047
A1	TTR1A	1616.1	2.1	frame		5	63,293,634	63,293,902	2	50,623,464	50,624,727
A1	FCA084	1634.1	3.1	frame		5	65,2				

A1	NM_006251	2264.3	2.4	frame	5	40,800,609	40,801,060	4	71,767,978	71,786,859
A1	nF-AGTT	2275.7	2.4	frame	5	35,915,326	35,915,404	4	75,805,119	75,805,438
A1	IL7P	--	--	binned	[nF-AGTT - 39011576]					
A1	UCMFC01	2290.0	2.2	frame	5	33,625,882	33,630,558	4	77,310,170	77,312,246
A1	FCA773	--	--	binned	[UCMFC01 - 39011576]					
A1	NM_194283	2292.8	3.5	placed	5	32,999,494	32,999,878	4	77,808,832	77,808,876
A1	FCA678	2295.7	0.5	placed	5	34,990,717	34,990,891	4	76,518,144	76,544,294
A1	39011576	2298.7	2.2	frame	5	33,625,234	33,626,913	4	77,311,627	77,314,429
A1	NM_006713	2301.6	0.2	placed	5	31,871,733	31,872,009	4	78,718,414	78,717,950
A1	FCA129	2327.8	0.2	placed	5	32,637,089	32,637,326	4	78,109,494	78,125,405
A1	FCA357	2330.8	4.1	frame	5	30,797,880	30,798,001	4	79,626,015	79,626,224
A1	39025265	2343.3	4.1	frame	5	29,433,662	29,433,891	4	80,680,867	80,681,094
A1	FCA725	2360.2	2.0	frame	5	22,578,683	22,578,789	4	85,650,494	85,650,825
A1	39019915	2373.7	1.8	frame	5	22,108,737	22,109,545	4	86,067,568	86,069,768
A1	FCA774	2383.2	1.8	frame	5	19,538,075	19,538,183	4	88,035,211	88,035,023
A1	BASP1	--	--	binned	[FCA774 - 39038423]					
A1	39045025	2399.2	7.5	frame	5	19,274,534	19,275,525	4	88,246,844	88,249,083
A1	39038423	2421.3	0.7	frame	5	17,328,750	17,329,023	4	89,554,543	89,555,031
A1	TEB4	2439.0	0.7	frame	5	16,277,713	16,277,775	4	90,307,994	90,308,052
A1	39085093	2453.8	4.3	frame	5	9,009,887	9,010,175	34	8,075,221	8,074,494
A1	FCA775	2462.9	4.9	frame	5	10,487,211	10,487,526	34	6,821,941	6,822,394
A1	FCA776	2472.2	2.3	placed	5	11,531,344	11,531,725	34	5,890,551	5,890,995
A1	TERT	2478.4	2.6	frame	5	6,921,144	6,921,230	34	9,863,948	9,864,518
A1	38974010	2490.3	2.6	frame	5	4,755,244	4,755,404	34	11,606,919	11,607,124
A1	39038405	2505.4	2.7	frame	5	1,306,842	1,348,104	34	14,224,353	14,242,830
A1	NSUN2	2514.1	2.7	frame	5	3,508,750	3,508,965	34	12,594,411	12,594,622
					5	4,584,628	4,584,711	34	11,741,124	11,740,798
					5	6,652,353	6,686,404	34	10,084,005	10,111,556

A2	GPX4	0.0	3.7	frame	19	1,056,366	1,056,510	20	60,670,000	60,670,061
A2	ADTD	7.9	3.7	frame	19	2,060,995	2,111,346	20	59,951,074	59,951,153
A2	NFIC	15.7	5.6	frame	19	3,407,547	3,407,633	20	58,870,397	58,874,793
A2	Ig_19_29	4.9	0.6	frame	19	4,843,078	4,843,078	20	57,726,974	57,727,370
A2	RANBP3	44.2	0.6	frame	19	5,876,154	5,938,113	20	57,020,771	57,021,118
A2	LG25_D04	81.0	5.9	frame	19	8,628,726	8,629,169	20	56,011,495	56,011,883
A2	39085100	100.1	4.6	placed	19	8,470,570	8,470,667	20	55,906,982	55,907,291
A2	39087702	105.5	3.7	frame	19	7,522,243	7,522,335	20	55,206,729	55,206,482
A2	39060060	113.9	0.7	frame	19	10,791,645	10,791,749	20	53,273,152	53,273,257
A2	39006639	--	--	binmed	19	14,415,280	14,415,435	20	51,039,673	51,039,508
A2	PTD008	119.5	2.6	placed	19	12,640,162	12,640,239	20	52,307,914	52,308,441
A2	LG_20_87	133.8	2.6	frame	19	9,863,923	9,864,097	20	53,990,417	53,990,748
A2	LG9-10_H12	144.7	0.7	frame	19	9,102,865	9,104,245	20	54,508,303	54,509,492
A2	MAN291	152.7	3.7	frame	19	12,636,619	12,636,619	20	52,209,297	52,209,333
A2	RAD23A	160.6	0.8	frame	19	12,919,661	12,919,824	20	52,109,521	52,111,650
A2	FCA777	170.9	0.8	frame	19	9,734,904	9,735,185	20	54,094,610	54,094,761
A2	FCA778	203.5	3.0	frame	19	15,773,194	15,775,511	20	49,415,599	49,416,013
A2	INSL3	214.6	1.7	frame	19	17,788,670	17,788,785	20	47,931,596	47,931,915
A2	LG9-14_C02	222.8	1.7	frame	19	19,185,695	19,186,296	20	46,827,946	46,828,404
A2	KIAA0892	231.2	1.4	placed	19	19,330,345	19,330,548	20	46,723,489	46,724,024
A2	CCR3	248.3	2.1	frame	3	46,282,026	46,282,166	20	45,238,945	45,239,189
A2	CCP5	248.3	2.1	frame	3	46,386,642	46,392,695	20	45,150,328	45,151,649
A2	FCA052	--	--	binmed	3	45,917,415	45,917,895	20	45,464,194	45,464,363
A2	FCA726	253.6	2.0	placed	3	46,616,209	46,619,602	20	44,979,502	44,979,871
A2	MYL3	253.6	2.0	placed	3	46,875,964	46,876,079	20	44,800,349	44,802,226
A2	IMPDH2	261.7	0.9	placed	3	49,035,492	49,035,627	20	42,996,267	42,996,990
A2	APEH	269.8	1.4	frame	3	49,686,438	49,695,937	20	42,442,564	42,451,668
A2	FCA581	272.4	0.6	placed	3	50,393,889	50,394,150	20	41,831,018	41,831,263
A2	COL7A1	277.5	1.8	placed	3	48,578,619	48,577,719	20	43,405,337	43,405,569
A2	FCA056	283.0	2.4	frame	3	51,079,972	51,099,389	20	41,178,919	41,179,111
A2	MGC39725	290.6	2.4	frame	3	51,872,074	51,872,153	20	40,710,287	40,710,738
A2	LG9-13_G10	309.5	1.2	frame	3	52,546,291	52,546,780	20	40,104,050	40,104,519
A2	PRKD	320.2	1.2	frame	3	53,170,265	53,201,771	20	39,573,513	39,599,441
A2	TLR9	331.5	2.5	frame	3	52,232,619	52,232,619	20	40,382,642	40,386,451
A2	NM_014041	334.4	1.5	placed	3	52,715,858	52,715,935	20	39,941,379	39,942,875
A2	LG_18.94	342.8	1.1	placed	3	55,316,292	55,317,683	20	37,789,121	37,791,253
A2	TKT	348.2	2.5	frame	3	53,234,711	53,265,069	20	39,540,591	39,555,895
A2	FCA355	359.1	2.4	frame	3	56,584,092	56,584,184	20	36,633,550	36,633,674
A2	38989999	381.5	1.2	frame	3	59,645,476	59,645,702	20	33,989,543	33,999,762
A2	LG1_F07	407.0	0.6	placed	3	57,148,067	57,148,309	20	36,131,936	36,132,192
A2	LG9-16_F08	429.0	1.2	frame	3	59,340,449	59,341,018	20	34,258,843	34,259,402
A2	39028769	442.3	2.3	frame	3	61,769,343	61,769,559	20	32,099,061	32,099,278
A2	LG25_A09	450.2	0.2	placed	3	62,407,221	62,407,663	20	31,500,649	31,501,082
A2	LG9-14_A06	452.8	2.3	frame	3	61,782,186	61,783,312	20	32,100,242	32,100,365
A2	LG9-14_B05	469.2	0.3	placed	3	62,959,055	62,959,580	20	30,964,652	30,965,124
A2	38995375	491.4	3.9	frame	3	63,083,053	63,083,335	20	30,832,784	30,833,062
A2	LG9-14_E03	501.9	3.9	frame	3	63,112,600	63,112,965	20	30,812,040	30,812,443
A2	LG9-16_D05	527.4	3.4	frame	3	68,972,698	68,973,367	20	25,724,113	25,724,464
A2	39014174	542.8	3.4	frame	3	68,539,913	68,539,867	20	26,089,461	26,099,533
A2	LG7_H05	579.9	3.6	frame	3	70,947,539	70,956,648	20	24,006,712	24,019,052
A2	FCA304	605.2	3.6	frame	3	67,471,611	67,471,649	20	27,179,898	27,179,935
A2	FCA779	624.6	2.4	frame	3	1,434,903	1,435,048	20	18,736,452	18,736,817
A2	39082102	640.6	4.6	frame	3	75,013,035	75,013,426	20	20,319,156	20,319,547
A2	LG6_E0110	647.9	4.6	frame	3	539,276	539,462	20	19,522,362	19,522,614
A2	39088851	686.0	10.1	frame	3	4,106,090	4,106,090	20	12,462,776	12,463,097
A2	39087046	723.7	6.1	frame	3	6,100,583	6,100,747	20	6,197,829	6,198,011
A2	FCA687	738.2	5.9	frame	3	8,327,446	8,327,884	20	12,600,403	12,600,894
A2	39041903	747.6	5.9	frame	3	7,687,073	7,687,218	20	7,485,149	7,485,538
A2	LC26_A11	767.1	6.4	frame	3	7,206,556	7,206,845	20	13,585,508	13,585,765
A2	LC555831	786.3	6.4	frame	3	9,980,693	9,980,693	20	11,155,819	11,162,284
A2	MDS027	827.8	5.4	placed	3	10,143,322	10,143,519	20	11,067,961	11,068,160
A2	39064368	872.7	7.9	frame	3	11,806,962	11,807,063	20	9,548,779	9,548,880
A2	PPARG	881.6	7.9	frame	3	12,304,366	12,450,847	20	8,979,885	9,029,988
A2	RHC	892.8	8.5	frame	3	130,734,071	130,734,211	20	8,477,984	8,477,990
A2	39038136	913.7	10.7	frame	3	14,533,374	14,533,374	20	7,485,177	7,485,366
A2	LG31_E05	944.0	0.7	placed	3	15,002,058	15,002,714	20	7,914,302	7,915,118
A2	LG_17.89	982.4	3.1	placed	3	128,529,189	128,529,614	20	4,290,120	4,290,530
A2	38995590	994.8	5.5	frame	3	128,279,002	128,279,121	20	4,054,040	4,054,157
A2	39039410	1006.6	5.0	frame	3	127,705,548	127,705,649	20	3,531,277	3,531,157
A2	LG34_F10	1019.3	5.0	frame	3	129,695,065	129,697,025	20	5,323,441	5,323,866
A2	FCA780	1025.3	2.9	placed	3	13,148,676	13,149,048	20	6,290,299	6,290,688
A2	KIAA1886	1080.9	5.5	frame	7	44,678,209	44,688,891	Un		
A2	39079347	1094.9	5.5	frame	7	47,720,967	47,721,095	Un		
A2	39161075	1111.0	7.7	frame	7	49,206,525	49,206,598	18	3,779,393	3,779,686
A2	DDC	1146.2	12.3	frame	7	50,300,351	50,407,316	18	4,656,983	4,712,727
A2	FALV016	1181.5	0.2	placed	7			18		
A2	FCA781	1192.9	6.2	frame	7	52,014,550	52,015,962	18	5,982,660	5,984,793
A2	LG_19.15	1212.3	2.1	frame	7	53,240,559	53,249,470	18	7,374,543	7,381,168
A2	39089967	1224.2	1.2	frame	7	55,043,071	55,043,265	18	8,890,727	8,890,493
A2	FCA782	1238.6	1.0	frame	7	43,600,741	43,620,165	18	9,278,494	9,302,008
A2	INHBA	1261.3	1.9	frame	7	41,463,636	41,515,519	18	11,194,076	11,484,218
A2	39036411	1263.6	3.9	placed	7	40,590,312	40,590,585	18	11,876,551	11,976,736
A2	LG1_H05	1270.7	1.9	frame	7	39,315,337	39,315,705	18	13,055,129	13,055,466
A2	TCRG	1287.9	5.8	frame	7	38,078,307	38,078,451	18	14,329,219	14,413,797
A2	38974778	1305.7	3.8	frame	7	107,189,857	107,189,992	18	15,529,587	15,529,705
A2	39036217	1326.6	1.9	frame	7	105,803,198	105,803,365	18	16,731,859	16,732,592
A2	FCA783	1332.6	1.8	frame	7	103,939,716	103,931,124	18	18,484,300	18,484,681
A2	39051924	1363.3	1.8	frame	7	76,720,372	76,720,684	18	20,400,199	20,400,814
A2	HGF	1391.0	4.7	frame	7	80,976,546	80,976,726	18	34,704,703	34,774,641
A2	FCA784	1401.4	4.7	frame	7	84,944,621	84,944,844	18	31,209,603	31,209,832
A2	39036621	1414.6	2.4	frame	7	88,619,673	88,619,756	14	17,806,294	17,805,778
A2	ABC81	1422.2	2.4	frame	7	86,805,259	86,805,465	14	16,192,150	16,273,342
A2	FCA124	1432.6	3.8	frame	7	85,985,025	85,984,140	14	15,474,603	15,476,660
A2	CALCR	1451.8	4.4	frame	7	92,698,450	92,848,687	14	21,460,244	21,611,178
A2	FCA656	1476.7	7.2	frame	7	97,006,561	97,014,434	14	25,175,167	25,182,809
A2	38989908	1490.5	4.2	frame	7	8,373,386	8,374,072	14	26,629,088	26,629,736
A2	FCA105	1505.3	4.2	frame	7	30,299,010	30,299,510	14	45,789,228	45,791,310
A2	FCA340	1506.9	5.5	frame	7	17,437,781	17,437,485	14	34,551,633	34,551,813
A2	38974589	1544.6	5.5	frame	7	16,510,889	16,511,056	14	33,752,558	33,752,755
A2	LG9-16_G09	1566.9	1.9	frame	7	30,849,296	30,849,944	14	46,247,370	46,248,072
A2	LG9-16_F11	1582.0	1.9	frame	7	29,899,419	29,900,003	14	45,426,569	45,427,200
A2	LG30_A08	1593.5	2.4	placed	7	27,969,931	27,972,912	14	43,809,791	43,812,151
A2	Fc_102024	1598.9	2.1	frame	7	26,709,746	26,709,810	14	45,267,855	45,267,995
A2	TAK1BP1	1618.4	2.1	frame	7	27,727,198	27,728,881	14	43,411,701	43,497,376
A2	FCA621	1631.0	0.3	placed	7	27,065,528	27,066,019	14	43,021,809	43,021,927
A2	IL6									

A3	C5NK2A	0.0	5.3	frame	
A3	39027719	25.5	5.5	frame	
A3	ASIF	36.3	4.7	placed	
A3	AHCF	41.3	8.7	frame	
A3	NM_152666	51.6	2.1	placed	
A3	LG26_D02	72.6	2.7	placed	
A3	BLCAP	84.8	4.2	frame	
A3	SRC	92.0	4.2	frame	
A3	UBEC2	109.3	7.8	frame	
A3	FCA794	114.1	2.2	placed	
A3	FCA729	127.2	7.6	frame	
A3	39010936	146.6	2.0	placed	
A3	YWHAB	151.9	4.4	placed	
A3	LG_19_02	154.5	3.8	frame	
A3	LG_A02	166.1	2.9	placed	
A3	LG3_G01	171.9	3.6	frame	
A3	FCA102	179.8	1.3	frame	
A3	STK15	192.6	1.3	frame	
A3	SANG	216.3	5.2	frame	
A3	TCFL5	240.1	2.9	frame	
A3	38995002	258.8	2.9	frame	
A3	FCA688	282.2	0.4	placed	
A3	LG29_H12	284.8	1.6	frame	
A3	FCA795	293.0	1.6	frame	
A3	3903796	330.3	2.2	frame	
A3	CHGB	347.1	2.2	frame	
A3	PRNP	376.5	3.7	frame	
A3	FCA797	--	--	binmed	[FCA796 - PLCB4]
A3	FCA514	424.3	1.7	placed	
A3	PLCB4	444.8	6.5	frame	
A3	LG34_F02	470.6	2.7	placed	
A3	FCA080	499.2	6.5	frame	
A3	FCA798	527.0	3.2	placed	
A3	39015825	547.0	7.5	frame	
A3	38995411	574.7	7.5	frame	
A3	LG3_D12	628.9	0.7	placed	
A3	39029284	654.4	4.5	frame	
A3	LG21_G11	671.2	4.5	frame	
A3	39038425	707.4	9.3	frame	
A3	39047725	711.9	0.8	placed	
A3	39160897	747.7	10.9	frame	
A3	39012307	785.5	3.4	frame	
A3	39055743	784.2	0.6	frame	
A3	FCA498	812.1	0.6	frame	
A3	38995409	822.3	0.6	frame	
A3	Z7F26L2	--	--	binmed	[39055743 - LHCGR]
A3	39038630	847.4	2.3	placed	
A3	38995546	870.2	0.8	placed	
A3	LHCGR	880.6	8.3	frame	
A3	FCA799	901.9	2.8	frame	
A3	FCA208	920.4	1.8	frame	
A3	TN14	933.1	1.8	frame	
A3	FCA536	954.5	0.2	placed	
A3	LG5_D12M	961.9	2.3	frame	
A3	LG35_D03	974.7	1.2	frame	
A3	GCT4	987.5	1.2	frame	
A3	MDH1	1000.2	3.2	frame	
A3	FCA800	1010.4	3.2	frame	
A3	NM_006759	1023.5	1.2	placed	
A3	39063535	1028.7	1.0	frame	
A3	39012619	1048.3	2.4	frame	
A3	FLJ13057	1056.2	1.4	frame	
A3	PCBP1	1066.2	1.4	frame	
A3	433	1076.9	1.3	placed	
A3	LG33_H08	1087.8	2.5	frame	
A3	38970499	1095.6	2.4	frame	
A3	HK2	1103.5	2.4	frame	
A3	FCA161	1123.4	1.2	frame	
A3	FCA801	1135.3	1.2	frame	
A3	39019912	1172.5	4.5	frame	
A3	38989899	1186.8	4.5	frame	
A3	C3BA	1210.1	1.4	placed	
A3	IGKC	1220.8	2.3	frame	
A3	LG33_B06	1229.1	1.7	placed	
A3	SLC20A1	1234.6	2.3	frame	
A3	IL1A	1247.5	7.6	frame	
A3	ADRA2B	1267.1	1.0	placed	
A3	MPT	1286.7	9.3	frame	
A3	FCA181	1324.8	5.9	frame	
A3	NSE1	1345.0	5.9	frame	
A3	LG3_H06	1370.9	3.9	frame	
A3	ODC1	1383.6	2.1	frame	
A3	39181074	1400.2	2.1	frame	
A3	FCA334	1429.6	2.1	frame	
A3	YWHAQ	1454.1	3.7	frame	
A3	MYCN	1463.5	3.7	frame	
A3	APOB	1486.1	3.3	frame	
A3	38994323	1495.0	3.3	frame	
A3	LG9-16_A02	1507.9	3.7	frame	
A3	38916875	--	--	binmed	[LG9-16_A02 - XDH]
A3	NM_033253	--	--	binmed	[LG9-16_A02 - XDH]
A3	39025035	1529.4	3.7	frame	
A3	XDH	1549.6	6.1	frame	
A3	38987844	1552.7	0.5	placed	
A3	FCA802	1558.9	4.3	frame	
A3	39025326	1573.9	2.2	frame	
A3	FCA493	1598.8	2.2	frame	
A3	PPP1CB	1626.5	2.2	frame	
A3	39015680	1644.2	2.2	frame	

20	412,440	416,122	24	23,304,407	23,308,735
20	30,209,255	30,209,403	24	24,489,364	24,489,538
20	32,320,509	32,320,634	24	26,315,908	26,320,201
20	32,341,987	32,342,117	24	26,340,920	26,341,307
20	33,458,200	33,462,651	24	27,307,298	27,307,725
20	31,705,424	31,706,125	24	25,801,560	25,802,370
20	35,580,640	35,580,912	24	29,047,085	29,047,386
20	35,445,485	35,467,239	24	28,929,342	28,950,053
20	43,873,100	43,873,449	24	38,041,121	38,043,347
20	42,689,795	42,689,912	24	35,024,682	35,024,907
20	43,141,285	43,141,985	24	35,400,467	35,400,870
20	48,156,063	48,156,466	24	39,513,939	39,514,434
20	42,969,069	42,969,165	24	35,262,174	35,262,442
20	49,579,650	49,580,784	24	40,665,797	40,666,050
20	50,720,001	50,720,932	24	41,582,573	41,582,922
20	51,661,474	51,661,705	24	42,381,866	42,382,105
20	51,066,087	51,066,304	24	41,867,343	41,867,436
20	54,377,852	54,400,703	24	44,515,461	44,515,868
20	56,919,136	56,919,461	24	46,590,167	46,590,815
20	60,943,352	60,943,490	24	49,689,710	49,689,986
20	62,342,498	62,342,620	24	50,680,576	50,681,313
20	40,330,642	40,331,297	24	33,117,999	33,118,819
20	40,328,004	40,329,542	24	33,115,659	33,116,904
20	38,644,915	38,645,019	24	31,608,216	31,608,537
20	6,411,133	6,411,448	24	18,486,496	18,486,795
20	5,840,106	5,854,003	24	18,931,862	18,944,710
20	4,627,883	4,628,626	24	19,863,979	19,864,724
20	6,766,977	6,767,438	24	18,163,233	18,163,427
20	7,010,634	7,011,168	24	17,938,054	17,938,653
20	9,407,800	9,407,935	24	15,767,536	15,767,854
20	12,520,790	12,521,196	24	12,938,155	12,938,599
20	14,154,062	14,154,441	24	11,451,850	11,452,157
20	19,006,783	19,006,826	24	7,165,004	7,165,032
20	17,092,620	17,092,771	24	8,832,043	8,831,503
20	20,900,394	20,900,709	24	5,464,898	5,464,321
20	24,949,056	24,949,247	23	4,210,577	4,210,868
20	25,238,080	25,238,215	23	4,500,671	4,501,034
20	25,515,997	25,516,429	23	4,732,853	4,733,147
2	107,087,124	107,087,269	10	40,034,140	40,034,300
2	106,177,429	106,177,513	10	40,649,304	40,649,449
2	103,053,911	103,054,027	10	43,340,224	43,340,511
2	101,014,704	101,014,833	10	45,153,498	45,153,750
2	96,954,214	96,954,339	10	48,369,997	48,369,780
2	99,626,454	100,086,555	10	46,215,821	46,216,128
2	98,958,791	98,958,993	10	47,036,177	47,036,515
2	43,367,259	43,367,457	10	49,007,227	49,007,590
2	45,384,098	45,384,298	10	50,897,347	50,897,802
1	244,423,841	244,424,040	14	4,085,788	4,085,581
2	48,825,564	48,894,498	10	53,803,755	53,837,316
2	50,604,210	51,171,936	10	55,879,781	55,880,131
2	51,814,399	51,814,850	10	56,469,869	56,470,039
2	55,110,975	55,189,385	10	59,259,673	59,300,665
2	58,187,606	58,298,502	10	61,803,601	61,803,796
2	60,490,757	60,492,943	10	63,872,469	63,874,550
2	62,367,779	62,368,210	10	65,530,604	65,531,030
2	62,006,905	62,027,679	10	65,248,633	65,253,487
2	63,733,271	63,745,979	10	66,702,676	66,714,886
2	53,987,524	53,987,879	10	58,229,793	58,231,848
2	64,030,059	64,030,261	10	66,930,045	66,978,107
2	65,852,916	65,853,232	10	68,495,095	68,495,747
2	68,126,149	68,126,351	10	70,506,494	70,506,864
2	70,017,869	70,018,211	10	71,909,588	71,910,108
2	70,227,385	70,227,779	10	72,071,259	72,071,878
2	67,893,922	67,894,219	10	70,316,752	70,317,020
2	71,140,615	71,142,353	10	72,693,648	72,695,627
2	75,006,391	75,006,584	17	51,112,608	51,112,321
2	74,972,914	75,030,768	17	51,087,993	51,148,019
2	73,151,258	73,151,624	17	52,633,356	52,633,759
2	73,435,865	73,435,958	17	52,376,478	52,376,831
2	80,635,598	80,635,789	17	46,425,086	46,424,522
2	83,827,007	83,827,318	17	43,740,609	43,740,048
2	86,929,109	86,929,181	17	41,194,228	41,198,594
2	89,372,950	89,373,241	17	40,518,095	40,570,184
2	88,509,933	88,510,965	17	40,881,156	40,881,579
2	113,133,014	113,133,564	17	39,734,900	39,749,481
2	113,248,786	113,249,077	17	39,841,250	39,849,320
2	96,203,093	96,203,724	17	37,484,065	37,485,232
2	39,020,268	39,020,371	17	33,772,635	33,776,535
2	15,506,243	15,515,572	17	14,233,788	14,245,011
2	14,727,300	14,727,485	17	13,618,486	13,618,973
2	11,476,022	11,477,344	17	11,062,197	11,064,474
2	10,534,811	10,534,922	17	10,327,151	10,327,337
2	2,045,153	2,045,291	17	4,076,181	4,076,693
2	7,804,519	7,804,625	17	8,158,892	8,159,149
2	9,674,704	9,721,728	17	9,614,124	9,614,595
2	16,031,332	16,031,637	17	14,681,883	14,683,357
2	21,135,953	21,178,597	17	18,848,949	18,884,562
2	20,372,804	20,373,185	17	18,231,142	18,231,877
2	20,649,682	20,650,451	17	18,523,983	18,524,671
2	8,759,439	8,759,553	17	8,897,695	8,897,792
2	18,666,740	18,666,974	17	16,813,348	16,833,933
2	18,707,076	18,707,299	17	16,849,446	16,849,664
2	31,506,743	31,506,920	17	27,748,687	27,801,793
2	222,416,882	222,416,847	7	41,529,304	41,529,478
2	31,211,179	31,211,255	17	27,536,162	

B1	39039612	0.0	3.2	frame	
B1	LG33_D04	12.0	3.2	frame	
B1	FCA014	33.1	2.0	frame	
B1	MCFH1	45.0	2.0	frame	
B1	38967925	60.6	1.1	frame	
B1	FCA803	70.0	1.1	frame	
B1	FCA805	96.5	7.4	frame	
B1	FCA804	103.9	7.4	frame	
B1	LG25_D03	115.9	5.9	frame	
B1	38911554	125.3	5.9	frame	
B1	FCA806	147.2	3.9	frame	
B1	Fc.32922(CARF)	161.1	6.8	frame	
B1	SLC25A4	170.1	2.5	frame	
B1	F11	179.0	2.5	frame	
B1	FCA577	206.0	8.7	frame	
B1	39037958	210.4	3.2	placed	
B1	F85	212.7	2.3	placed	
B1	LG21_F09	224.5	7.1	frame	
B1	FCA522	240.6	2.2	frame	
B1	38989990	254.7	2.2	frame	
B1	LG26_C05	261.6	0.3	placed	
B1	MGC8721	291.9	2.9	frame	
B1	FCA807	345.7	1.5	placed	
B1	FCA519	373.8	1.2	placed	
B1	39062576	397.8	4.7	frame	
B1	38994306	424.2	4.7	frame	
B1	LPL	469.9	9.7	frame	
B1	NAT2	497.1	6.3	frame	
B1	FCA559	515.5	6.3	frame	
B1	POLB	550.1	8.6	placed	
B1	ADRB3	632.4	3.9	frame	
B1	FCA039	643.8	3.9	frame	
B1	FGFH1	--	--	binlined	[FCA559 - 38974314]
B1	38974314	657.5	5.9	frame	
B1	FCA023	664.3	5.9	frame	
B1	CLU	666.5	2.8	placed	
B1	FCA809	673.3	5.2	frame	
B1	FCA811	--	--	binlined	[FCA023 - FCA810]
B1	FCA810	682.7	5.1	frame	
B1	39036182	689.8	1.4	frame	
B1	FCA812	697.0	1.4	frame	
B1	38989945	704.4	2.6	placed	
B1	FCA700	716.7	5.2	frame	
B1	FCA254	733.1	3.8	frame	
B1	FCA813	754.6	3.8	frame	
B1	FCA550	784.8	6.2	frame	
B1	38965928	802.5	4.4	placed	
B1	FCA814	842.6	4.2	frame	
B1	FCA815	852.3	4.2	frame	
B1	FCA513	862.1	6.7	frame	
B1	LG4_G09	890.4	6.0	frame	
B1	LG4_F10	906.1	6.0	frame	
B1	LG34_B09	906.5	4.1	placed	
B1	38967980	918.5	5.1	placed	
B1	FCA816	926.5	4.6	frame	
B1	FGG	936.1	4.6	frame	
B1	NR3C2	948.0	7.0	frame	
B1	KIAA1046	957.3	4.9	frame	
B1	FCA818	964.4	4.9	frame	
B1	LG23_E12	--	--	binlined	[NR3C2 - FCA817]
B1	FCA817	974.3	8.8	frame	
B1	LG34_F03	987.2	4.6	frame	
B1	FCA819	999.8	4.6	frame	
B1	IL15	1009.5	4.6	frame	
B1	FCA564	1019.1	2.3	frame	
B1	NM_004362	1031.3	2.3	frame	
B1	39038123	1049.4	3.8	frame	
B1	LG34_B10	1062.2	3.8	frame	
B1	FCA820	1089.5	5.7	frame	
B1	IL2	1110.5	6.0	frame	
B1	FCA821	1123.7	5.7	frame	
B1	FCA822	1131.8	5.7	frame	
B1	LG7_E01	1134.5	1.4	placed	
B1	FCA126	1159.4	0.4	placed	
B1	FCA212	1233.1	6.1	frame	
B1	NM_016648	1190.9	2.6	placed	
B1	LG22_E11	1199.7	5.0	frame	
B1	EGF	1208.0	2.6	frame	
B1	LG_20_34	1216.0	2.6	frame	
B1	FCA074	1233.1	6.1	frame	
B1	LG3_D09	--	--	binlined	[FCA074 - LG34_C07]
B1	SD6-306	1253.6	6.6	frame	
B1	LG34_C07	1268.1	2.0	frame	
B1	FCA812	1276.7	2.0	frame	
B1	PKD2	1311.0	2.1	frame	
B1	ODF1	1321.4	2.1	placed	
B1	MLT2	1326.6	2.1	frame	
B1	LG23_C06	1344.0	6.4	frame	
B1	FCA824	1396.2	5.5	frame	
B1	NM_012297	1372.0	1.8	frame	
B1	39085105	1387.2	3.0	frame	
B1	FCA825	1399.2	3.0	frame	
B1	IL8	--	--	binlined	[FCA824 - ALB]
B1	ALB	1438.6	1.9	frame	
B1	CSN2	1455.2	1.9	frame	
B1	FCA823	1476.2	2.2	frame	
B1	FCA097	1476.2	2.2	frame	
B1	39095403	1488.3	2.2	frame	
B1	FCA257	1497.1	2.2	frame	
B1	FCA827	1542.9	0.6	placed	
B1	FCA149	1573.3	0.8	placed	
B1	39060629	1579.2	1.9	frame	
B1	NM_145048	1588.0	1.9	frame	
B1	FCA826	--	--	binlined	[FCA257 - FLJ20425]
B1	KIT	1616.8	0.9	placed	
B1	FLJ20425	1694.1	3.2	frame	
B1	FCA828	1725.7	1.3	placed	
B1	FCA152	1731.7	4.3	frame	
B1	39006210	1746.8	4.8	frame	
B1	39029009	1764.3	4.0	frame	
B1	FCA730	1781.0	4.0	frame	
B1	FCA829	1799.8	2.5	placed	
B1	Fc.25119	1821.3	4.6	frame	
B1	FCA528	1831.9	4.6	frame	
B1	38995660	1851.9	2.3	placed	
B1	FCA830	1854.5	1.8	frame	
B1	FCA831	1863.0	1.8	frame	
B1	FCA832	1865.4	7.0	frame	
B1	LG8_C01	1911.4	1.5	frame	
B1	MYL5	1926.0	1.5	frame	

8	3,129,078	3,129,278	16	59,302,177	59,302,392
8	4,515,436	4,517,128	16	58,014,660	58,016,933
8	8,493,470	8,493,536	16	37,745,441	37,745,730
8	6,278,878	6,489,214	16	56,274,963	56,422,915
8	6,656,932	6,657,040	16	55,880,111	55,879,964
4	188,323,478	188,323,581	16	45,459,013	45,459,055
4	178,827,755	178,866,091	16	52,900,929	52,901,095
4	182,319,627	182,319,710	16	50,673,342	50,673,617
4	183,870,922	183,871,505	16	49,254,446	49,255,242
4	183,470,974	183,471,061	16	49,614,841	49,614,606
4	185,517,839	185,585,648	16	47,797,568	47,797,839
4	184,740,938	184,744,495	16	48,499,496	48,502,806
4	186,439,571	186,443,575	16	47,052,087	47,055,940
4	187,562,556	187,585,083	16	46,065,264	46,062,644
4	189,435,746	189,443,798	16	44,096,721	44,097,524
8	17,350,685	17,350,861	16	42,300,902	42,391,221
8	16,858,994	16,859,448	16	41,929,730	41,930,200
8	14,206,463	14,206,838	16	39,490,495	39,492,786
8	12,888,556	12,888,627	16	38,303,010	38,303,432
8	8,223,052	8,223,243	16	37,954,980	37,954,843
8	8,550,916	8,552,323	16	37,696,427	37,698,512
8	30,040,206	30,040,459	16	36,071,703	36,072,165
8	25,142,114	25,142,633	25	35,246,043	35,246,308
8	32,537,942	32,538,155	16	33,756,880	33,757,165
8	25,883,909	25,884,078	25	34,581,153	34,581,322
8	22,325,114	22,325,681	25	37,894,224	37,894,574
8	19,857,630	19,857,874	25	40,120,701	40,134,354
8	18,123,864	18,124,584			
8	19,546,837	19,547,013	16	24,284,025	24,284,271
8	42,315,333	42,315,395	16	25,184,871	25,185,212
8	36,880,881	36,884,281	16	29,293,825	29,295,735
8	38,389,151	38,445,490	16	28,911,929	28,925,693
8	35,416,397	35,416,591	16	31,393,609	31,393,405
8	31,307,618	31,308,078	16	31,605,132	31,630,344
8	27,518,407	27,518,704	25	33,011,976	33,025,076
8	27,646,753	27,686,089	25	32,903,062	32,903,362
8	27,433,308	27,435,370	25	33,100,445	33,104,877
8	9,798,266	9,801,644	25	31,162,081	31,162,715
8	10,751,843	10,752,100	25	30,079,373	30,080,160
8	11,412,399	11,412,444	25	29,398,853	29,399,186
4	176,271,650	176,271,850	25	28,521,062	28,520,822
4	175,106,000	175,106,041	25	27,386,148	27,386,444
4	176,007,720	176,007,720	25	29,134,350	29,134,012
8	11,442,957	11,459,026	25	29,465,868	29,466,007
4	172,502,264	172,503,386	25	25,289,644	25,291,717
4	170,013,651	170,014,103	25	22,351,562	22,351,855
4	162,662,655	163,442,723	15	60,701,111	60,701,388
4	162,339,558	162,341,776	15	60,934,362	60,939,871
20	24,429,343	24,429,879	23	3,718,547	3,720,685
4	157,585,345	157,585,882	15	56,760,924	56,761,539
4	154,726,855	154,727,435	15	54,282,567	54,283,146
4	152,442,173	152,442,265	15	52,134,350	52,134,012
4	155,165,332	155,165,595	15	54,652,537	54,652,783
4	155,888,357	155,888,478	15	55,296,939	55,297,220
4	149,357,525	149,721,128	19	49,408,306	49,737,091
4	146,437,894	146,456,353	15	46,829,635	46,835,068
4	145,775,980	145,775,980	15	46,299,026	46,299,309
4	145,648,586	145,648,962	15	46,214,893	46,215,294
4	145,925,238	146,016,800	15	46,468,644	46,468,924
7	68,575,056	68,580,623	6	6,541,949	6,547,508
4	142,798,334	142,806,229	19	4,488,887	4,498,898
4	143,011,511	143,011,606	19	4,398,441	4,349,482
4	141,191,060	141,191,169	19	5,871,143	5,871,252
4	141,667,523	141,667,756	19	5,397,440	5,446,048
4	136,896,850	136,896,995	19	9,629,756	9,629,945
4	135,664,232	135,668,555	19	10,706,490	10,708,882
4	130,381,371	130,390,539	19	14,468,576	14,468,831
4	123,730,515	123,730,624	19	20,770,916	20,775,878
4	121,734,058	121,735,272	19	22,527,870	22,528,078
4	119,560,694	119,631,513	32	40,543,124	40,543,220
4	118,340,334	118,340,770	32	39,490,562	39,491,022
4	121,107,794	121,128,782	32	41,586,604	41,625,781
4	114,988,331	115,004,380	32	36,445,967	36,545,684
4	113,929,226	113,929,339	32	35,443,664	35,455,004
4	110,019,467	110,020,580	32	32,086,876	32,087,297
4	111,254,774	111,254,997	32	33,086,853	33,179,102
4	110,768,810	110,769,337	32	32,737,286	32,738,128
4	108,202,581	108,311,653	32	30,534,399	30,534,642
4	106,204,929	106,205,176	32	28,899,553	28,899,795
4	106,665,331	106,665,399	32	29,248,177	29,264,752
4	103,228,270	103,228,620	32	26,495,400	26,495,882
4					

B2	FCA833	0.0	6.3	frame	
B2	BTN1A1	11.7	2.2	frame	
B2	MOC	18.5	2.0	placed	
B2	3908326f1	25.3	0.4	placed	
B2	GPX5	27.5	2.2	frame	
B2	TRIM26	34.4	0.4	placed	
B2	FCA275	53.7	5.7	frame	
B2	FCA834	58.2	3.6	placed	
B2	PRL	60.4	4.8	frame	
B2	FCA835	69.6	4.8	frame	
B2	FCA305	81.1	7.5	frame	
B2	EDN1	94.9	9.4	frame	
B2	FCA836	122.1	5.3	frame	
B2	LG21_C12	136.1	3.4	frame	
B2	FCA837	150.4	3.4	frame	
B2	F13A	162.1	4.5	frame	
B2	PRP4	182.0	10.7	frame	
B2	LG31_E10	218.2	9.5	frame	
B2	MKFX	257.4	9.5	frame	
B2	TRIM39	294.1	6.4	frame	
B2	16FLA	294.1	6.4	frame	
B2	ASYN	297.0	2.2	placed	
B2	FLA2	314.9	0.4	placed	
B2	FLA1	320.3	5.2	frame	
B2	TNFA	328.7	5.2	frame	
B2	CSNK2B	334.1	1.6	placed	
B2	C4A	336.7	7.4	frame	
B2	TSBP	349.9	8.2	frame	
B2	16B21	369.0	1.4	placed	
B2	DRA	371.5	2.2	frame	
B2	FCA838	379.0	2.2	frame	
B2	DOB	--	--	binned	[DRA - RPS18]
B2	DPA	383.8	5.2	placed	
B2	RPS18	393.7	6.6	frame	
B2	MLN	410.8	6.6	frame	
B2	TCP11	435.6	1.8	placed	
B2	FCA053	437.8	5.2	frame	
B2	CDKN1A	454.2	5.2	frame	
B2	PIM1	473.2	3.5	frame	
B2	38988454	482.3	3.5	frame	
B2	LG22_H09	503.8	1.5	frame	
B2	FCA839	512.9	1.5	frame	
B2	RDS	534.7	6.2	frame	
B2	CDCL	553.7	6.2	frame	
B2	COL9A1	--	--	binned	[CDCL - 39037933]
B2	39006193	595.4	3.1	placed	
B2	39010221	633.7	6.2	frame	
B2	39039010	648.2	4.3	placed	
B2	39041811	689.6	0.4	placed	
B2	39037933	762.0	5.5	frame	
B2	EEF1A1	827.2	3.2	placed	
B2	FCA840	864.1	5.6	frame	
B2	LG_17_12	882.0	5.6	frame	
B2	ME1	884.4	2.2	placed	
B2	FCA841	899.7	8.5	frame	
B2	CGA	925.7	8.5	frame	
B2	b5+b5R	950.9	0.2	placed	
B2	CNR1	970.8	5.0	placed	
B2	39012476	978.0	4.8	placed	
B2	39007558	993.5	6.2	frame	
B2	FCA846	1003.4	6.2	frame	
B2	FCA847	1013.4	6.4	frame	
B2	FCA732	1015.7	2.2	placed	
B2	RD114-6F	1038.7	3.7	frame	
B2	LG31_G12	1053.8	9.7	frame	
B2	FCA733	1072.0	3.3	frame	
B2	POU3F2	1084.5	3.3	frame	
B2	FCA680	1096.7	6.9	frame	
B2	CD164	1119.1	6.4	frame	
B2	39064331	1154.3	8.0	frame	
B2	FCA845	1167.0	7.2	frame	
B2	39049098	1174.6	6.6	frame	
B2	FCA133	1182.2	6.6	frame	
B2	LG_19_6f1	1189.9	0.4	placed	
B2	FCA844	1215.4	5.2	frame	
B2	RPS12	--	--	binned	[FCA133 - 38974525]
B2	38974525	1240.3	4.0	frame	
B2	EPB41L2	1263.0	4.0	frame	
B2	LG24_D07	1286.1	2.7	placed	
B2	FCA843	1309.6	0.2	placed	
B2	LG_19_6f7	1315.0	4.1	frame	
B2	39038466	1328.8	4.1	frame	
B2	39036207	1367.2	7.7	frame	
B2	ESR1	1396.4	6.7	frame	
B2	39063854	1419.4	4.1	frame	
B2	TCP1	1429.2	4.1	frame	
B2	OKI	1439.3	2.5	placed	
B2	FCA842	1441.7	3.4	frame	
B2	38987989	1454.5	3.1	frame	
B2	TBP	1469.7	3.1	frame	

6	26,045,493	26,048,650	35	26,841,637	26,844,270
6	26,616,950	26,617,173	35	27,267,344	27,267,582
6	29,732,847	29,748,076	35	29,239,124	29,249,502
6	28,332,285	28,335,534	35	29,377,545	29,379,756
6	28,601,768	28,609,923	35	28,637,380	28,642,391
6	30,260,210	30,289,104	35	29,370,304	29,378,070
6	22,677,807	22,797,072	35	23,874,259	23,874,354
6	22,677,807	22,797,072	35	24,002,944	24,003,438
6	22,395,563	22,395,784	35	23,646,350	23,656,327
6	19,078,866	19,079,207	35	20,650,822	20,651,034
6	18,208,716	18,208,850	35	19,880,540	19,880,707
6	12,400,601	12,400,729	35	14,771,537	14,772,787
6	8,025,648	8,025,711	35	10,968,237	10,970,409
6	6,738,266	6,738,636	35	9,791,648	9,792,210
6	5,935,971	5,936,060	35	9,016,774	9,016,855
6	6,211,825	6,211,973	35	9,253,261	9,253,423
6	3,966,595	4,010,215	35	7,260,877	7,261,018
6	2,504,571	2,505,012	35	5,852,505	5,852,892
6	237,097	296,353	35	3,621,229	3,675,686
6	30,403,019	30,419,484	12	3,239,482	3,252,813
6	29,974,561	30,004,707	12	3,816,028	3,818,666
6	30,019,896	30,020,153	12	3,856,704	3,859,276
6	31,652,870	31,653,293	12	3,998,041	3,999,753
6	31,745,554	31,750,368	12	4,077,075	4,077,985
6	32,057,813	32,111,173	12	4,367,374	4,367,738
6	32,368,465	32,448,183	12	4,748,934	4,841,093
6	32,516,372	32,523,494	12	5,054,037	5,057,603
6	32,888,527	32,892,803	12	5,299,085	5,303,675
6	33,140,771	33,149,356	12	5,526,673	5,527,926
6	33,392,485	33,393,484	12	5,653,684	5,658,843
6	33,870,427	33,879,771	12	6,057,634	6,064,252
6	35,193,989	35,194,250	12	7,209,098	7,209,512
6	36,759,896	36,760,301	12	8,678,639	8,680,779
6	37,246,561	37,246,650	12	9,140,309	9,141,146
6	38,317,903	38,317,966	12	10,139,952	10,140,233
6	41,123,780	41,125,994	12	12,733,012	12,735,299
6	41,124,204	41,124,462	12	12,735,739	12,735,989
6	42,797,470	42,798,056	12	14,229,047	14,244,422
6	44,522,320	44,522,658	12	15,750,161	15,751,331
6	71,066,497	71,068,689	12	35,773,573	35,773,814
6	47,034,336	47,034,468	12	18,055,228	18,055,274
6	65,263,973	65,264,054	12	30,760,043	30,759,786
6	56,329,285	56,329,563	12	26,549,064	26,549,532
6	76,445,235	76,445,377	12	40,240,618	40,240,829
6	53,637,682	53,637,682	12	24,113,860	24,113,326
6	74,281,146	74,287,476	12	38,509,627	38,512,060
6	80,719,439	80,720,519	12	44,852,617	44,854,676
6	82,995,948	82,997,228	12	45,684,435	45,684,550
6	83,978,076	84,197,499	12	46,560,015	46,720,867
6	88,017,343	88,017,543	12	49,702,054	49,702,186
6	87,861,672	87,861,801	12	49,561,292	49,561,483
6	84,726,405	84,726,777	12	47,179,014	47,179,395
6	88,910,294	88,911,712	12	50,473,016	50,474,418
6	89,325,689	89,325,848	12	50,830,636	50,830,792
6	91,538,805	91,538,971	12	52,889,273	52,888,977
6	92,246,325	92,246,622	12	53,530,634	53,530,925
6	94,161,823	94,162,223	12	55,207,899	55,208,298
6	94,663,634	94,664,001	12	55,629,469	55,629,842
6	96,613,853	96,614,303	12	57,550,272	57,550,782
6	99,890,488	99,891,018	12	60,477,581	60,477,950
6	99,389,319	99,391,256	12	60,024,320	60,028,212
6	106,661,471	106,662,069	12	66,436,241	66,436,321
6	109,794,413	109,794,675	12	69,271,338	69,271,877
6	118,298,265	118,298,374	1	60,983,950	60,983,517
6	124,012,866	124,012,933	1	65,785,241	65,785,648
6	125,559,096	125,559,251	1	67,169,809	67,170,332
6	126,557,241	126,559,526	1	68,060,581	68,060,861
6	130,073,646	130,074,380	1	71,278,136	71,278,535
6	136,945,178	136,945,358	1	32,115,817	32,116,262
6	133,177,401	133,185,594	1	23,815,809	23,817,253
6	145,778,297	145,778,513	1	39,690,778	39,691,047
6	131,202,183	131,319,333	1	72,138,140	72,240,284
6	142,898,876	142,906,957	1	37,169,355	37,170,468
6	144,785,952	145,203,667	1	39,575,300	39,575,807
6	143,417,429	143,417,827	1	37,634,121	37,634,484
6	140,288,943	140,289,211	1	34,980,144	34,979,836
6	149,334,312	149,334,428	1	42,826,848	42,826,718
6	152,221,189	152,221,589	1	45,091,039	45,091,451
6	156,094,863	156,095,161	1	48,409,026	48,408,805
6	160,169,942	160,181,134	1	51,922,976	52,043,846
6	163,954,863	163,955,164	1	54,807,842	54,963,152
6	164,116,341	164,116,386	1	55,109,049	55,109,513
6	166,914,878	166,914,988	1	57,509,785	57,509,468
6	170,781,053	170,799,576	12	75,436,019	75,436,246

BS	DNAJ4	0.0	2.2	frame	
BS	IL16	13.9	2.2	frame	
BS	39012261	30.7	2.4	frame	
BS	BTBD1	37.7	2.4	frame	
BS	FES	47.1	3.9	frame	
BS	CIB1	59.2	4.3	frame	
BS	LG23_D02	66.0	4.3	frame	
BS	ANPEP	85.1	4.9	frame	
BS	LG_17_19	119.0	1.4	frame	
BS	FCA848	124.8	1.4	frame	
BS	FCA849	139.0	4.1	frame	
BS	38968055	150.9	4.1	frame	
BS	39052140	160.3	6.5	placed	
BS	IGF1R	174.8	6.0	frame	
BS	38988372	183.3	2.4	frame	
BS	MEF2A	190.6	2.4	frame	
BS	39018125	204.5	4.3	frame	
BS	TJP1	216.1	4.3	frame	
BS	LG9_10_A05	232.8	1.2	frame	
BS	38995700	237.3	1.3	placed	
BS	FCA349	246.6	1.2	frame	
BS	39078566	282.8	8.9	frame	
BS	TSPAN-3	366.5	1.6	frame	
BS	CYP1A1	396.4	1.6	frame	
BS	39029376	420.6	6.6	frame	
BS	FCA205	436.8	2.1	frame	
BS	FCA660	450.8	2.1	frame	
BS	RPLP1	467.2	4.3	frame	
BS	LG25_C03	481.3	4.8	frame	
BS	39078501	--	--	binmed	[RPLP1 - LG22_F08]
BS	LG22_F08	497.9	7.7	frame	
BS	TPM1	522.0	1.8	frame	
BS	PSFL	531.0	1.8	frame	
BS	FCA201	552.9	3.0	frame	
BS	FCA850	568.6	3.0	frame	
BS	B2M	610.6	2.5	frame	
BS	39005843	610.6	2.5	frame	
BS	38988883	620.4	2.5	frame	
BS	CYP19	630.1	2.7	frame	
BS	KIAA0256	655.8	9.9	frame	
BS	TYR3	678.0	2.6	frame	
BS	LG5_D11M	697.6	2.6	frame	
BS	39006039	714.9	3.3	frame	
BS	THBS1	722.0	3.3	frame	
BS	CHP	731.6	4.7	frame	
BS	FCA391	731.6	4.7	frame	
BS	39012549	744.3	4.7	frame	
BS	ACTC	771.0	4.1	frame	
BS	CMA1	791.3	4.0	frame	
BS	PABPN	803.3	3.7	frame	
BS	PNN	807.9	2.3	placed	
BS	OXA1L	814.9	2.8	frame	
BS	NRL	819.6	2.9	placed	
BS	MYH6	821.9	2.8	frame	
BS	MYH7	821.9	2.8	frame	
BS	FCA013	--	--	binmed	[MYH6 - APEX]
BS	DAD1	829.1	2.8	frame	
BS	TRA@	--	--	binmed	[DAD1 - NDRG2]
BS	APEX	836.3	2.8	frame	
BS	NDRG2	843.4	4.0	frame	
BS	TRD@	--	--	binmed	[APEX - LG9-16_H02]
BS	LG9-16_H02	866.8	1.9	frame	
BS	HNF3A	879.0	1.9	frame	
BS	PYGL	898.9	4.7	frame	
BS	FCA851	934.4	1.4	placed	
BS	39095388	960.7	2.2	frame	
BS	39005350	975.8	2.2	frame	
BS	FCA230	980.5	3.5	placed	
BS	FCA852	987.9	6.3	frame	
BS	LG34_B08	1000.5	6.6	frame	
BS	39011560	1010.1	4.8	frame	
BS	ESR2	1022.3	4.8	frame	
BS	FCA855	--	--	binmed	[ESR2 - 39060260]
BS	LG_20.2	1037.1	0.2	placed	
BS	FOS	1037.1	0.2	placed	
BS	MAX	1041.7	2.2	frame	
BS	MPP5	1048.8	2.2	frame	
BS	KIAA0759	--	--	binmed	[MPP5 - RD114-8D]
BS	ATP6V1D	1051.0	0.1	placed	
BS	39060260	1063.2	2.5	frame	
BS	FCA734	--	--	binmed	[MPP5 - RD114-8D]
BS	RD114-8D	1072.9	2.2	frame	
BS	FCA592	1082.5	2.2	frame	
BS	FCA856	1097.5	5.7	frame	
BS	TSHR	1112.4	4.5	frame	
BS	LG7_B11	1119.5	2.8	frame	
BS	RD114-8A	1126.6	2.8	frame	
BS	RD114-8E	--	--	binmed	[LG7_B11 - 39010548]
BS	RD114-8F	--	--	binmed	[LG7_B11 - 39010548]
BS	FCA088	--	--	binmed	[FCA856 - 39010548]
BS	39010548	1133.7	5.2	frame	
BS	39161002	1140.9	4.0	frame	
BS	ITPK1	1148.2	4.0	frame	
BS	39060197	1153.0	1.9	placed	
BS	WARS	1183.3	0.8	frame	
BS	FLJ22558	1193.1	0.8	frame	
BS	E1F5	1200.4	2.3	frame	
BS	IGHM	1221.5	6.7	frame	

15	76,349,891	76,350,074	3	61,368,032	61,362,571
15	79,388,003	79,388,194	3	59,432,831	59,435,377
15	83,256,572	83,256,641	3	57,112,187	57,112,439
15	81,477,500	81,477,577	3	57,753,920	57,754,141
15	89,236,977	89,237,056	3	56,303,964	56,306,070
15	88,574,594	88,574,744	3	56,140,447	56,140,882
15	88,520,832	88,522,153	3	56,092,272	56,092,696
15	88,129,552	88,129,740	3	55,721,704	55,736,534
15	86,448,770	86,449,053	3	54,311,372	54,311,666
15	86,221,222	86,530,124	3	54,340,762	54,341,075
15	84,485,297	84,486,121	3	52,651,220	52,653,542
15	91,163,818	91,164,080	3	50,239,780	50,240,014
15	94,621,178	94,621,357	3	47,157,185	47,156,954
15	97,010,242	97,319,034	3	44,805,951	45,047,532
15	97,782,969	97,783,124	3	44,286,931	44,286,311
15	97,990,733	98,074,131	3	43,972,428	44,065,614
15	100,002,807	100,002,891	3	42,387,326	42,387,667
15	27,779,648	27,901,998	3	41,948,188	42,058,496
15	29,480,183	29,480,424	3	40,563,208	40,563,461
15	29,084,050	29,084,157	3	40,896,065	40,895,416
15	27,275,921	27,276,095	3	41,459,667	41,459,886
15	24,153,337	24,153,608	3	37,077,625	37,078,086
15	75,125,711	75,125,968	30	42,217,650	42,217,939
15	72,801,994	72,802,301	30	40,747,921	40,748,265
15	70,382,246	70,382,246	30	38,754,505	38,754,114
15	68,748,137	68,781,701	30	37,359,228	37,359,487
15	68,832,175	68,832,690	30	37,408,408	37,408,956
15	67,532,229	67,534,938	30	36,291,223	36,294,110
15	64,814,603	64,814,757	30	33,913,452	33,913,780
15	64,086,253	64,087,869	30	33,265,236	33,265,572
15	61,121,940	61,145,344	30	30,569,894	30,597,428
15	61,388,280	61,388,364	30	30,819,690	30,820,100
15	59,789,469	59,789,640	30	29,390,880	29,391,110
15	56,602,308	56,602,492	30	28,461,894	28,462,078
15	42,791,012	42,791,654	30	14,243,916	14,246,452
15	42,994,730	42,994,819	30	14,343,062	14,343,293
15	44,497,457	44,497,796	30	15,679,892	15,679,470
15	49,291,739	49,291,958	30	19,871,148	19,871,462
15	47,070,786	47,071,091	30	18,125,397	18,125,835
15	39,639,524	39,639,827	30	11,492,145	11,506,198
15	37,664,708	37,667,584	30	9,674,966	9,677,120
15	36,635,457	36,635,801	30	8,802,248	8,802,911
15	37,660,577	37,676,957	30	9,671,375	9,687,464
15	39,310,832	39,310,934	30	11,212,954	11,213,178
15	37,589,939	37,589,936	30	9,296,990	9,297,325
15	31,547,004	31,547,254	30	4,432,061	4,432,405
15	32,633,778	32,834,007	30	5,408,636	5,413,538
14	24,044,404	24,047,281	8	7,301,395	7,304,130
14	22,864,130	22,864,364	8	6,444,579	6,445,050
14	38,714,204	38,721,174	8	20,222,310	20,229,042
14	22,307,032	22,307,232	8	5,969,240	5,969,622
14	23,625,815	23,625,891	8	6,955,325	6,955,720
14	22,921,037	22,947,324	8	6,488,869	6,539,990
14	22,951,788	22,974,690	8	6,489,288	6,542,127
14	22,113,797	22,113,875	8	5,825,015	5,838,542
14	21,535,638	21,536,298	8	5,809,499	5,809,638
14	19,993,130	19,995,765	15	20,784,114	20,786,138
14	20,554,776	20,555,174	15	21,107,557	21,114,110
14	22,001,892	22,001,990	8	5,724,840	5,726,112
14	37,011,869	37,012,860	8	18,840,396	18,840,940
14	37,128,940	37,133,980	8	18,947,889	18,951,427
14	50,441,810	50,480,922	8	30,139,007	30,181,899
14	41,665,888	41,667,925	8	22,626,155	22,626,258
14	47,213,111	47,213,506	8	27,480,757	27,480,445
14	51,805,785	51,805,867	8	31,354,527	31,354,419
14	54,799,290	54,799,381	8	34,002,556	34,002,864
14	54,142,762	54,143,012	8	33,410,536	33,410,956
14	58,605,737	58,606,208	8	37,259,833	37,260,318
14	60,906,093	60,906,258	8	39,169,069	39,168,864
14	63,769,607	63,830,831	8	41,555,133	41,606,286
14	74,916,914	74,917,284	8	51,329,758	51,330,152
14	74,815,312	74,818,404	8	51,245,733	51,249,079
14	64,612,947	64,613,136	8	42,347,822	42,370,778
14	66,829,075	66,870,432	8	44,240,993	44,241,532
14	76,323,553	76,323,558	8	52,571,341	52,571,706
14	66,874,532	66,874,699	8	44,244,608	44,244,891
14	71,483,680	71,483,908	8	48,329,259	48,329,555
14	72,450,213	72,452,039	8	49,211,705	49,213,170
14	72,758,247	72,758,283	8	48,481,751	48,482,069
14	77,841,539	77,841,928	8	53,888,400	53,888,560
14	80,679,036	80,680,450	8	56,244,767	56,298,208
14	81,189,940	81,189,974	8	56,839,519	56,839,653
14	82,641,703	82,641,943	8	58,110,672	58,110,835
14	85,010,811	85,011,138	8	60,107,070	60,107,590
14	90,442,240	90,442,428	8	64,757,248	64,756,845
14	92,473,011	92,651,952	8	64,964,237	65,117,824
14	94,264,291	94,264,416	8	68,601,502	68,601,329
14	99,897,798	99,898,014	8	71,589,545	71,575,057
14	99,047,161	99,047,604	8	70,863,895	70,864,348
14	102,870,299	102,879,261	8	74,039,919	74,040,455
14	105,389,084	106,241,447	8	75,851,484	75,852,881

B4	FCA857	0.0	5.7	frame	10	1,115,942	1,141,213	2	34,492,712	34,494,750
B4	IL2RA	21.7	4.4	frame	10	6,093,511	6,144,278	2	30,488,342	30,538,793
B4	Fc.26434	30.7	4.4	frame	10	5,844,498	5,844,628	2	30,763,986	30,764,126
B4	FCA858	42.2	3.2	frame	10					
B4	39014767	49.2	3.2	frame	10	4,284,926	4,285,037	2	31,838,969	31,839,181
B4	GATA3	66.0	11.4	frame	10	8,136,673	8,156,859	2	28,660,191	28,677,888
B4	38967995	78.0	6.6	placed	10	9,551,736	9,551,995	2	27,357,408	27,356,819
B4	39012430	98.1	9.3	frame	10	11,397,834	11,397,971	2	25,609,903	25,610,336
B4	Fc.112998(C10orf49)	120.1	6.0	frame	10	13,303,772	13,316,334	2	23,873,210	23,882,806
B4	NMT2	141.6	5.8	frame	10	15,190,520	15,190,628	2	22,190,343	22,190,606
B4	VIM	163.2	5.8	frame	10	17,311,283	17,319,598	2	20,252,977	20,253,243
B4	LG7_C04	170.0	0.1	placed	10	17,434,233	17,436,246	2	20,166,481	20,178,990
B4	CACNB2	203.3	6.2	frame	10	18,469,612	18,870,044	2	19,116,261	19,479,772
B4	FCA859	234.7	3.8	placed	10	24,914,138	25,035,530	2	16,935,369	16,937,367
B4	BM11	252.2	9.3	frame	10	22,658,818	22,659,128	2	14,935,342	14,935,652
B4	FCA861	297.0	1.9	frame	10	31,597,613	31,597,979	2	10,236,568	10,236,959
B4	ITGB1	308.9	1.8	frame	10	33,229,333	33,287,153	2	6,729,863	6,758,015
B4	FCA860	315.8	1.8	frame	10	33,039,276	33,039,635	2	6,982,452	6,983,046
B4	CREM	341.9	6.9	frame	10	35,540,306	35,540,700	2	4,751,296	4,751,701
B4	38974750	--	--	binmed	12	2,389,672	2,389,953	27	47,443,104	47,443,272
B4	39060215	389.8	10.5	frame	12	2,584,473	2,584,600	27	47,650,050	47,649,811
B4	FCA356	436.4	6.2	frame	12	5,077,454	5,212,742	27	42,658,882	42,659,120
B4	FCA862	--	--	binmed	12	6,059,144	6,064,098	27	41,851,057	41,853,162
B4	WVF	--	--	binmed	12	5,998,569	5,999,146	27	41,911,298	41,912,457
B4	NTF3	445.7	6.2	frame	12	5,473,642	5,474,415	27	42,372,467	42,373,238
B4	TNFRSF1A	455.0	2.7	placed	12	6,312,793	6,312,935	27	41,630,033	41,638,689
B4	CD9	459.5	2.4	frame	12	6,214,654	6,214,754	27	41,731,031	41,763,028
B4	Fc.estTDE7	461.8	0.7	placed	12					
B4	TPH1	461.8	0.7	placed	12	6,848,770	6,848,845	27	41,141,314	41,141,946
B4	GAPD	466.3	1.9	frame	12	6,513,945	6,517,797	27	41,454,631	41,456,535
B4	CD4	478.1	1.9	frame	12	6,798,273	6,798,335	27	41,188,391	41,236,387
B4	39010218	528.8	1.2	frame	12	16,368,770	16,369,163	27	33,418,173	33,417,434
B4	FCA677	556.4	2.0	frame	12					
B4	GSDA	563.2	2.0	frame	12	10,742,956	10,767,218	27	38,074,276	38,074,599
B4	CDKN1B	574.6	3.0	frame	12	12,761,979	12,762,507	27	36,617,629	36,621,253
B4	IAPP	604.5	5.6	frame	12	21,422,445	21,422,644	27	29,305,849	29,306,113
B4	FCA016	626.8	4.7	placed	12	52,616,951	52,617,015	27	4,449,538	4,449,761
B4	38987995	650.0	3.8	placed	12	24,467,397	24,467,671	27	25,965,058	25,965,820
B4	F98	677.9	3.2	frame	12	24,174,864	24,174,982	27	26,250,294	26,250,714
B4	PTHLH	696.8	2.0	frame	12	28,007,694	28,007,872	27	22,757,608	22,757,814
B4	FCA863	710.6	2.0	frame	12	28,970,376	29,192,167	27	21,738,598	21,738,982
B4	39038115	756.1	3.4	frame	12	38,776,315	38,776,421	27	16,509,209	16,509,001
B4	LG9-14_H09	792.8	2.8	frame	12	45,491,701	45,492,183	27	10,710,679	10,711,171
B4	FCA865	820.8	2.8	frame	12	44,897,204	44,919,945	27	11,215,807	11,217,865
B4	COL2A1	832.7	3.1	frame	12	46,654,260	46,654,399	27	9,787,983	9,788,335
B4	LG_18.79	839.8	3.1	frame	12	46,790,549	46,791,035	27	9,660,506	9,660,934
B4	TEGT	853.9	4.0	frame	12	48,442,986	48,443,208	27	7,926,607	7,927,001
B4	SLC11A2	881.5	3.8	frame	12	49,696,199	49,696,272	27	6,815,644	6,816,120
B4	39011755	903.3	1.7	placed	12	52,787,151	52,800,413	27	4,153,993	4,165,453
B4	HOX3A	911.5	3.8	frame	12	52,691,038	52,691,356	27	4,258,791	4,260,064
B4	CD63	940.7	1.4	frame	12	54,405,585	54,408,400	10	3,189,550	3,191,940
B4	RPS26	964.2	1.4	frame	12	54,722,192	54,724,272	10	3,426,217	3,427,509
B4	RPL41	986.6	3.8	frame	12	54,796,640	54,797,882	10	3,500,652	3,501,700
B4	NACA	991.1	1.8	placed	12	54,392,552	55,405,350	10	4,004,201	4,005,442
B4	LG4_E03	998.0	3.8	frame	12	55,871,372	55,872,438	10	4,385,712	4,386,187
B4	FCA864	1012.5	2.0	frame	12	62,174,942	62,175,111	10	9,621,116	9,621,280
B4	FCA865	1019.5	2.0	frame	12	63,315,650	63,325,793	10	10,375,914	10,383,042
B4	FCA867	1041.3	1.9	frame	12	60,870,361	60,870,600	10	8,345,804	8,346,107
B4	FCA051	1053.3	0.7	placed	12	66,214,796	66,214,965	10	12,965,394	12,965,587
B4	MDM2	1066.6	1.8	placed	12	67,489,248	67,510,120	10	14,009,661	14,035,639
B4	IFNG	1125.1	2.5	frame	12	66,835,268	66,835,352	10	13,480,486	13,480,791
B4	FCA044	1140.4	0.8	placed	12	69,075,789	69,091,519	10	15,287,798	15,297,485
B4	LG_20.20	1150.5	0.1	placed	12	66,461,698	66,462,963	10	13,164,248	13,164,780
B4	FCA868	1152.8	4.9	frame	12	65,086,715	65,086,802	10	12,460,777	12,463,223
B4	LG5-16_A11	1159.8	4.9	frame	12	72,980,127	72,981,140	10	18,282,968	18,283,358
B4	FCA866	1169.4	4.9	frame	12	70,064,102	70,064,249	10	16,049,359	16,049,627
B4	39095536	1181.5	2.7	frame	12	75,382,346	75,382,603	15	22,443,285	22,442,908
B4	39088367	1196.2	2.7	frame	12	79,161,245	79,161,465	15	25,667,590	25,667,118
B4	39014201	1203.7	3.6	placed	12	82,048,643	82,049,166	15	28,040,590	28,039,924
B4	LG22_F03	1232.9	5.4	frame	12	85,319,652	85,330,260	15	30,864,373	30,864,885
B4	FCA852	1251.3	1.4	placed	12	86,461,476	86,461,569	15	31,775,505	31,775,725
B4	MGF	1256.0	4.0	frame	12	87,412,559	87,412,612	15	32,620,554	32,620,946
B4	RD114-3B	1263.3	4.0	frame	12					
B4	FCA210	1268.4	5.1	placed	12	89,860,401	89,898,788	15	34,207,737	34,207,903
B4	FCA187	1279.2	4.4	frame	12	94,508,994	94,511,154	15	39,495,662	39,495,872
B4	FCA735	1286.9	4.4	frame	15	37,633,629	37,655,740	30	9,609,753	9,612,081
B4	FCA869	1292.0	2.9	placed	12	95,482,813	95,482,916	15	39,307,548	39,307,775
B4	LG30_F04	1297.2	4.9	frame	12	91,502,838	91,503,119	15	36,012,586	36,012,933
B4	LG4_C03	1310.8	6.3	frame	12	97,198,710	97,198,810	15	40,762,860	40,762,960
B4	39022374	1336.2	0.4	placed	12	105,089,949	105,087,043	10	33,672,049	33,671,726
B4	38988828	1338.7	4.1	frame	12	103,982,125	103,982,193	10	36,556,509	36,556,749
B4	39014425	1346.3	4.1	frame	3	14,666,287	14,666,531	23	7,437,024	7,436,888
B4	LG30_G05	1353.8	4.9	frame	12	105,659,010	105,659,475	10	35,238,757	35,239,188
B4	LG33_C10	1353.8	4.9	frame	12	106,129,866	106,129,960	10	34,794,095	34,794,438
B4	39079474	1358.8	0.4	placed	12	106,480,829	106,480,953	10	34,484,944	34,484,770
B4	TIMP3	1361.2	4.9	frame	22	31,579,862	31,581,108	10	33,869,406	33,923,641
B4	FCA232	1371.9	2.4	placed	22	32,689,487	32,689,938	10	33,029,323	33,029,678
B4	FCA520	1377.0	2.7	frame	22	34,368,923	34,383,457	10	31,732,165	31,732,599
B4	FCA460	1384.5	0.4	placed	22	33,803,073	33,806,227	10	27,150,634	27,150,728
B4	TST	1389.4	2.4	frame	22	35,731,406	35,739,971	10	30,676,162	30,676,558
B4	FCA871	1391.9	0.3	placed	22	35,587,894	35,588,015	10	30,785,326	30,785,612
B4	Fc.40342	1394.3	2.7	placed	22	36,494,801	36,494,849	10	30,034,294	30,034,548
B4	PDGFB	1396.7	2.4	frame	22	37,946,293	37,946,390	10	28,983,431	28,985,637
B4	FCA870	--	--	binmed	22	37,602,728	37,603,005	10	29,131,257	29,131,530
B4	NDUFA6	1409.0	4.3	frame	22	40,807,563	40,807,672	10	26,445,054	26,451,410
B4	FCA1056	--	--	binmed	22	44,789,641	44,800,348	10	23,207,842	23,218,572
B4	FCA069	1416.1	2.2	placed	22	42,513,973	42,514,238	10	25,004,272	25,004,570
B4	FCA736	1431.0	3.2	placed	22	44,087,695	44,100,253	10	23,828,758	23,829,657
B4	39004016	1443.3	4.3	frame	22	48,600,107	48,600,448	10	20,458,700	20,457,956
B4	KIAA0685	1443.3	4.3	frame	22	49,173,568	49,173,646	10	19,983,190	19,983,513

C1	FCA873	0.0	0.7	frame	1	4,671,415	4,744,932	5	61,969,483	61,969,669
C1	GNB1	8.3	0.7	frame	1	1,753,990	1,754,092	5	59,333,370	59,333,736
C1	39045067	22.6	1.9	frame	1	6,639,349	6,639,468	5	63,514,895	63,515,035
C1	LG_20_37	65.3	2.3	placed	1	7,722,271	7,722,280	5	64,448,763	64,450,309
C1	VAMP3	39.2	2.2	placed	1	7,775,582	7,775,725	5	64,483,789	64,494,014
C1	Fc.estTDA1	67.1	2.4	placed						
C1	ENO1	70.0	2.1	frame	1	8,860,616	8,860,766	5	65,365,466	65,376,464
C1	UBE4B	81.9	2.1	frame	1	10,066,432	10,066,539	5	66,318,878	66,324,968
C1	TNFRS1B	--	--	binned	[UBE4B - NPPA]	12,201,074	12,201,074	2	86,354,693	86,357,276
C1	39036528	97.2	1.9	placed	1	13,665,371	13,665,528	2	84,274,701	84,274,051
C1	NPPA	103.2	5.6	frame	1	11,851,790	11,853,254	2	86,623,046	86,623,245
C1	LG27_H08	--	--	binned	[UBE4B - Fc.25129]	13,907,555	13,909,902	2	84,073,417	84,075,516
C1	LG9-14_G07	112.7	0.2	placed	1	11,421,742	11,424,872	2	86,943,486	86,945,594
C1	Fc.25129	139.4	7.4	frame	1	16,530,647	16,530,688	2	81,974,294	81,975,516
C1	FCA877	--	--	binned	[Fc.25129 - CDW52]	22,880,808	22,881,234	2	77,187,589	77,187,951
C1	FCA874	165.5	0.9	placed	1	26,526,318	26,526,440	2	74,204,204	74,204,354
C1	FCA875	175.1	0.5	placed	1	25,270,420	25,270,657	2	75,260,000	75,260,110
C1	LG31_D02	178.2	3.8	frame	1	25,396,913	25,397,403	2	75,163,526	75,164,005
C1	CDW52	187.5	2.2	frame	1	26,328,627	26,331,155	2	74,361,395	74,361,696
C1	FCA876	--	--	binned	[LG31_D02 - 39060164]	26,883,121	26,883,307	2	73,626,323	73,626,445
C1	FGR	--	--	binned	[LG31_D02 - 39060164]	27,626,328	27,626,401	2	73,346,862	73,347,029
C1	39060164	196.3	2.2	frame	1	28,247,033	28,247,112	2	72,851,175	72,850,895
C1	LG9-16_G11	--	--	binned	[Fc.25129 - COL16A1]	28,138,215	28,138,242	2	72,935,635	72,935,770
C1	39060590	216.8	4.4	placed	1	31,044,088	31,044,287	2	70,720,331	70,720,178
C1	COL16A1	223.2	3.8	frame	1	31,787,342	31,787,548	2	70,117,433	70,118,530
C1	YARS	235.1	3.8	frame	1	32,909,934	32,952,673	2	69,091,512	69,091,703
C1	39062547	253.7	3.5	frame	1	48,059,797	48,059,895	15	15,854,979	15,854,824
C1	LOC127540	272.9	2.8	frame	1	33,998,877	33,999,281	15	10,917,252	10,917,608
C1	CAP	295.6	4.3	frame	1	40,207,071	40,207,406	15	5,504,190	5,504,781
C1	INSL6	328.8	3.7	frame	1	44,901,890	44,901,959	15	18,541,428	18,543,411
C1	TESK2	344.5	3.7	frame	1	45,478,649	45,625,926	15	17,853,168	17,996,749
C1	GJ44	382.7	2.5	frame	1	35,322,408	35,325,154	15	10,170,140	10,170,413
C1	FCA879	397.0	2.5	frame	1	41,162,959	41,511,107	15	4,838,144	4,838,464
C1	FCA880	411.3	0.5	frame						
C1	39081978	418.0	4.8	placed	1	38,104,080	38,104,189	15	7,605,709	7,605,510
C1	NM_019073	418.0	4.3	placed	1	48,476,431	48,476,590	15	15,437,492	15,581,993
C1	39036492	424.6	2.3	placed	1	50,295,944	50,296,046	15	13,937,271	13,937,485
C1	NM_014372	430.9	2.1	frame	1	51,447,723	51,447,802	15	12,930,032	12,933,766
C1	FCA247	446.3	0.2	placed						
C1	DIO1	453.7	2.1	frame	1	54,071,898	54,088,780	5	58,134,787	58,151,419
C1	39052075	463.6	1.5	frame	1	58,487,717	58,487,780	5	54,408,460	54,407,913
C1	39025347	473.4	1.5	frame	1	56,358,531	56,358,733	5	56,317,763	56,318,156
C1	LG9-10_C06M	483.2	1.6	placed						
C1	39952168	506.8	1.8	placed	1	62,167,950	62,168,251	5	51,112,946	51,112,225
C1	FCA878	515.8	0.3	frame	1	60,845,627	60,845,719	5	52,292,721	52,292,222
C1	LEPR	541.3	2.3	frame	1	65,598,479	65,815,202	5	47,735,019	47,923,423
C1	LG6_F10	557.1	2.3	frame	1	66,571,355	66,572,300	5	47,083,975	47,086,300
C1	39038361	570.0	4.5	frame	1	69,238,717	69,238,938	6	77,997,378	77,997,477
C1	NM_004768	573.1	4.0	placed	1	70,429,102	70,429,236	6	77,010,648	77,032,709
C1	39080787	574.4	1.3	placed	1	68,352,615	68,352,786	6	78,644,234	78,644,512
C1	PTGER3	583.1	6.3	frame	1	71,224,667	71,225,015	6	76,467,814	76,469,092
C1	39011849	596.2	5.5	frame	1	74,540,670	74,540,842	6	73,526,752	73,526,477
C1	PTGFR	614.9	1.2	placed	1	78,670,450	78,671,249	6	69,991,440	70,030,126
C1	ACADM	617.6	4.4	frame	1	75,902,303	75,941,204	6	72,384,053	72,406,604
C1	39038403	632.6	4.4	frame	1	84,003,115	84,003,207	6	65,510,662	65,510,987
C1	39866149	644.7	6.2	frame	1	85,752,997	85,753,184	6	63,981,680	63,982,068
C1	FCA737	661.7	4.0	frame	1	90,126,928	90,129,256	6	60,207,669	60,207,860
C1	LG31_A01	669.7	0.4	placed	1	92,090,530	92,091,129	6	58,521,683	58,522,081
C1	39898138	675.0	4.0	frame	1	92,764,982	92,765,230	6	57,922,973	57,922,686
C1	ARG23	677.7	0.2	placed	1	94,595,994	94,596,105	6	52,261,719	52,261,747
C1	FCA289	700.5	2.5	frame	1	96,919,794	96,920,986	6	54,450,124	54,450,755
C1	FCA738	--	--	binned	[FCA289 - 39079416]	96,752,368	96,755,087	6	54,556,827	54,557,080
C1	LG26_C06	703.0	2.2	placed	1	97,248,251	97,248,615	6	54,086,251	54,086,588
C1	39079416	716.3	1.4	frame	1	141,413,134	141,413,183	38	55,443,026	55,442,352
C1	LG31_C07	723.7	1.2	frame	1	99,447,480	99,448,211	6	52,104,968	52,105,402
C1	EDG1	737.4	1.2	frame	1	101,414,570	101,419,094	6	50,403,287	50,405,907
C1	FCA057	761.9	9.4	frame						
C1	LG_17_37	774.5	5.6	frame	1	107,693,402	107,694,018	6	45,625,739	45,626,404
C1	FCA881	779.2	3.6	placed	1	108,947,421	108,988,112	6	44,555,118	44,555,404
C1	GNAT2	789.0	5.6	frame	1	109,887,756	109,867,747	6	43,809,429	43,817,810
C1	ADORA3	800.8	2.7	frame	1	111,754,807	111,755,060	17	66,587,382	66,587,665
C1	F37	807.7	2.7	frame						
C1	NRAS	841.7	0.9	frame	1	114,959,134	114,972,030	17	56,225,817	56,227,346
C1	NGFB	875.5	0.9	frame	1	115,541,104	115,541,230	17	55,707,291	55,707,363
C1	FCA882	903.7	2.0	placed						
C1	C02	913.0	4.4	frame	1	117,009,143	117,023,892	17	56,376,598	56,398,498
C1	HSD3B1	934.7	6.2	frame	1	119,761,857	119,769,723	17	59,356,549	59,384,137
C1	GJ48	956.4	1.0	frame	1	144,604,899	144,606,200	17	61,114,415	61,114,697
C1	FCA290	963.3	1.0	frame	1	144,468,707	144,600,259	17	61,099,259	61,099,444
C1	NM_030920	982.6	2.6	placed	1	147,004,880	147,000,990	17	62,150,426	62,167,527
C1	NM_018379	982.5	1.7	placed	1	147,782,718	147,782,920	17	62,784,465	62,793,177
C1	NCL1	984.7	4.7	frame	1	147,365,519	147,365,078	17	62,458,549	62,453,321
C1	39089667	1046.4	2.5	frame	12	32,547,137	32,547,535	27	19,331,021	19,330,554
C1	FCA883	1055.4	2.5	frame	2	129,938,967	129,970,591	19	24,130,153	24,150,009
C1	PROC	1088.1	7.5	frame	2	127,902,417	127,902,668	19	26,201,112	26,201,563
C1	FCA884	1121.9	5.0	placed	2	120,128,132	120,130,302	19	33,436,586	33,438,772
C1	FCA739	1144.3	8.9	frame	2	124,894,464	124,894,966	19	29,089,211	29,089,749
C1	39045129	1168.9	8.2	frame	2	125,472,698	125,472,928	19	28,573,522	28,573,237
C1	65new	1196.3	6.5	frame	2	122,449,914	122,450,754	19	31,314,450	31,315,265
C1	FCA343	1233.5	6.5	frame	2	116,826,543	116,826,645	19	36,121,827	36,121,930
C1	LG8_F12	1279.3	3.7	placed	2	134,494,215	134,496,116	19	39,859,758	39,861,945
C1	FCA885	1300.4	0.8	frame	2	133,472,803	133,473,041	19	38,876,950	38,877,163
C1	FCA740	1325.1	0.8	frame	2	135,571,969	135,571,838	19	40,853,710	40,854,299
C1	LG_17_79	1352.9	2.6	frame	2	138,137,434	138,138,075	19	43,255,246	43,255,693
C1	FCA293	1374.2	5.3	frame	2	139,456,538	139,457,278	19	44,547,629	44,547,847
C1	LG34_F11	1384.5	4.4	frame	2	140,291,196	140,292,407	19	45,214,255	45,214,962
C1	FCA480	1395.4	4.4	frame						
C1	CXK4	1425.5	1.2	frame	2	136,706,171	136,707,214	19	41,918,309	41,919,355
C1	CL25022	1484.5	1.3	frame	2	150,251,712	150,252,047	19	54,208,062	54,208,446
C1	FCA173	1505.4	1.3	frame	2	154,570,912	154,571,224	36	3,666,141	3,666,475
C1	FCA886	1532.0	6.7	frame	2	158,377,257	158,378,248	36	6,776,539	6,791,394
C1	LOC253782	1561.5	1.7	frame	2	169,456,879	169,457,142	36	16,725,658	16,726,151
C1	FCA570	1572.5	1.7	frame	2	168,086,913	168,086,120	36	15,477,718	15,482,827
C1	LG34_D08	1586.9	1.8	placed	2	164,388,549	164,387,003	36	12,125,351	12,125,819
C1	GAD1	1601.7	2.6	placed	2	171,541,720	171,542,253	36	18,472,787	18,513,550
C1	FCA887	1607.3	2.9	frame	2	173,052,059	173,052,280	36	19,837,813	19,838,077
C1	CHRNA1	1616.2	4.7	frame	2	175,437,835	175,454,688	36	21,854,761	21,855,097
C1	S33	1625.2	6.4	frame	2	178,066,025	178,0			

C2	FCA568	-- --	binned	[p-terminal - FCA892]	21	46,403,212	46,408,332	31	41,850,469	41,855,027
C2	HMT1L1	0.0	3.9	frame	21	46,909,188	46,909,272	31	42,181,566	42,206,616
C2	FCA892	21.7	2.0	frame	21	45,448,894	45,456,589	31	41,118,283	41,125,235
C2	39063613	32.6	2.0	frame	21	44,772,657	44,772,645	31	40,607,471	40,607,322
C2	LG21_E06	-- --	binned	[39063613 - SON]	21	35,098,151	35,098,401	31	32,300,273	32,300,525
C2	39007228	53.5	9.2	frame	21	39,204,541	39,204,830	31	35,994,456	35,994,412
C2	FCA346	-- --	binned	[39063613 - SON]	21	35,225,213	35,225,321	31	32,419,027	32,419,270
C2	FCA893	59.0	2.2	placed	21	37,766,931	37,800,396	31	34,595,962	34,598,249
C2	SON	32.7	9.2	frame	21	33,871,161	33,871,161	31	31,214,008	31,214,182
C2	C21orf59	96.9	1.8	frame	21	32,897,342	32,897,433	31	30,311,189	30,312,564
C2	FCA638	112.0	1.8	frame	21	29,847,747	29,988,254	31	27,779,508	27,784,770
C2	APP	129.8	2.0	frame	21	26,175,263	26,175,889	31	24,360,513	24,361,152
C2	FCA894	155.4	3.7	frame	21	21,292,643	21,292,848	31	21,458,199	21,458,510
C2	FCA896	169.3	3.7	frame	21	22,809,889	22,812,286	31	21,294,833	21,295,252
C2	NCAM2	174.4	2.2	placed	21	21,292,692	21,834,285	31	19,906,797	20,424,183
C2	LG_20.77	189.4	2.5	frame	21	17,184,393	17,194,208	31	16,590,841	16,591,384
C2	FCA895	204.4	1.1	frame	21	18,422,722	18,423,772	31	17,474,201	17,476,282
C2	FCA535	206.7	2.5	placed	21	18,539,412	18,560,462	31	17,543,408	17,543,862
C2	FCA543	214.0	1.1	frame	21	19,321,143	19,323,013	31	18,231,534	18,233,950
C2	LG23_B06	221.5	1.1	frame	21	18,158,380	18,159,612	31	17,282,612	17,283,404
C2	NRIP1	236.8	1.6	frame	21	15,255,433	15,359,126	31	14,840,488	14,847,902
C2	FCA899	273.9	1.2	placed	3	81,451,067	81,451,323	31	9,152,856	9,153,122
C2	FCA898	276.5	0.8	frame	3	81,425,476	81,425,779	31	9,178,435	9,178,746
C2	FCA897	294.7	1.5	frame	3	77,044,819	77,045,189	31	13,098,254	13,098,349
C2	LG_19.17	301.9	1.5	frame	3	80,642,925	80,644,792	31	9,805,562	9,806,228
C2	GBE1	309.3	7.0	frame	3	81,622,718	81,893,701	31	8,721,425	8,987,425
C2	FCA900	322.0	6.4	frame	3	83,286,146	83,286,209	31	7,404,774	7,404,978
C2	FCA901	332.1	6.4	frame	3	85,573,796	85,576,700	31	5,451,194	5,451,287
C2	F164	347.4	6.1	frame	3	86,720,778	86,722,869	31	4,358,430	4,361,769
C2	39052059	368.6	4.3	placed	3	90,158,224	90,158,504	33	4,471,262	4,471,542
C2	FCA576	381.5	6.3	frame	3	95,333,102	95,333,535	33	4,846,578	4,846,866
C2	FCA903	391.5	6.3	frame						
C2	FCA902	401.5	0.2	placed						
C2	FCA486	419.5	5.4	frame	3	99,536,027	99,536,366	33	8,269,480	8,271,576
C2	FCA904	424.5	2.7	placed	3	100,462,719	100,462,759	33	9,012,364	9,012,948
C2	FCA077	431.7	5.4	frame	3	100,986,661	100,988,698	33	9,488,980	9,489,120
C2	39079765	446.2	2.1	frame	3	103,029,417	103,029,627	33	11,184,089	11,184,182
C2	38911591	458.1	2.1	frame	3	146,211,870	146,214,237	23	43,410,759	43,410,573
C2	39077724	458.1	2.1	frame	3	149,558,722	149,559,410	23	46,363,509	46,363,920
C2	39012573	477.6	3.0	frame	3	106,732,445	106,732,515	33	14,213,100	14,213,170
C2	39060158	484.8	3.0	frame	3	109,679,898	109,680,048	33	17,051,558	17,052,216
C2	FLJ20730	502.1	5.0	frame	3	113,763,585	113,785,693	33	20,162,260	20,162,659
C2	FCA905	534.5	5.3	frame	3	113,025,278	113,025,534	33	19,548,148	19,548,480
C2	GAP43	568.0	2.4	frame	3	116,869,148	116,878,910	33	22,737,594	22,839,275
C2	DRD3	580.4	1.9	frame	3	115,330,250	115,380,450	33	21,442,142	21,483,693
C2	LG21_F12	590.1	1.9	frame	3	117,523,149	117,523,519	33	23,425,854	23,426,209
C2	CD80	621.3	13.2	frame	3	120,738,711	120,738,957	33	26,260,065	26,271,741
C2	LG25_F05	628.2	0.1	placed	3	120,227,672	120,227,911	33	25,830,049	25,830,397
C2	CD86	650.5	2.0	frame	3	123,307,734	123,307,960	33	28,372,713	28,389,868
C2	FCA483	652.5	2.7	placed	3	123,899,174	123,900,462	33	28,650,278	28,650,610
C2	FCA906	671.3	1.5	frame	3	124,438,403	124,438,478	33	29,367,513	29,367,756
C2	39011719	704.2	0.6	placed	3	199,195,500	199,195,696	33	31,795,716	31,795,912
C2	TFRC	718.1	7.4	frame	3	197,267,123	197,267,365	33	32,287,442	32,309,298
C2	FCA907	826.4	7.8	placed						
C2	39029479	888.3	5.6	placed	3	189,888,515	189,888,744	34	24,054,137	24,054,366
C2	DKG	909.6	7.6	frame	3	187,349,714	187,562,705	34	21,901,328	22,094,723
C2	SST	933.6	1.5	placed	3	188,869,406	188,870,808	34	23,144,173	23,145,510
C2	FLJ11198	952.6	0.6	frame	3	185,394,033	185,394,310	34	20,167,328	20,167,783
C2	LG4_F04	961.7	0.2	placed	3	182,900,358	182,900,872	34	17,917,484	17,918,056
C2	LG9-10_G02	964.0	0.6	frame	3	182,559,661	182,560,302	34	17,628,616	17,629,246
C2	LG4_G05	968.6	2.3	placed	3	158,411,836	158,412,415	38	22,545,611	22,545,816
C2	FCA908	978.4	1.3	frame	3	179,423,652	179,425,242	34	44,604,904	44,607,292
C2	FCA909	988.2	1.3	frame	3	179,212,847	179,212,959	34	44,417,110	44,417,573
C2	SLC2A2	1023.3	1.5	frame	3	172,196,839	172,227,470	34	38,449,489	38,479,160
C2	FCA424	1037.4	1.5	frame	3	169,842,726	169,842,942	34	36,445,390	36,445,573
C2	Ig4_a08	1049.3	2.2	placed	3	169,109,166	169,109,340	34	35,789,354	35,789,527
C2	BCH1	1053.5	2.2	frame	3	167,033,027	167,031,556	34	33,939,069	34,057,511
C2	FCA910	1073.3	0.9	frame	3	165,842,501	165,845,314	34	33,101,153	33,101,436
C2	FCA911	1085.0	0.9	frame	3	165,374,141	165,374,359	34	32,759,441	32,759,682
C2	LG24_D11	1110.3	0.5	frame						
C2	IL12A	1119.9	0.5	frame	3	161,193,499	161,193,612	34	29,218,273	29,219,233
C2	FCA912	1129.8	4.4	frame	3	159,005,504	159,006,799	23	54,295,936	54,298,059
C2	LG25_G06	1142.7	4.4	frame	3	155,261,576	155,261,576	23	51,293,513	51,295,802
C2	FCA310	1169.5	2.0	frame	3	151,605,170	151,605,295	23	48,136,708	48,136,830
C2	FCA913	1176.8	2.0	frame	3	150,073,843	150,074,050	23	46,776,718	46,776,920
C2	CP	1184.1	3.0	frame	3	150,399,990	150,400,126	23	47,063,781	47,064,124
C2	FLJ23751	-- --	binned	[CP - FCA914]	3	142,495,622	142,496,039	23	40,250,120	40,250,693
C2	RAS2	1215.9	4.0	frame	3	142,688,624	142,614,551	23	40,463,844	40,558,915
C2	FCA914	1232.5	4.0	frame	3	140,420,543	140,421,754	23	38,433,807	38,435,908
C2	PCCB	1257.5	8.2	frame	3	137,531,447	137,531,663	23	35,834,686	35,837,556
C2	FCA918	1275.4	3.6	placed	3	133,077,426	133,077,900	23	31,974,422	31,976,533
C2	TF	1280.3	5.2	frame	3	134,956,050	134,956,197	23	33,713,657	33,718,250
C2	RD114-3D	1290.4	-- --	binned						
C2	FCA915	-- --	binned	[RD114-3D - 39011832]	3	18,369,373	18,369,420	23	27,731,353	27,731,754
C2	39047901	1297.9	2.6	placed	3	132,390,037	132,390,180	23	31,416,582	31,417,011
C2	DAZLA	1302.9	1.5	frame	3	16,613,252	16,613,406	23	29,247,603	29,248,012
C2	39011832	1315.6	2.6	frame	3	17,006,208	17,008,388	23	11,227,799	11,227,574
C2	FCA117	1332.8	2.6	frame	3	17,905,279	17,905,353	23	28,151,146	28,151,959
C2	TGFBP2	1365.2	5.2	frame	3	30,623,012	30,710,579	23	16,910,554	16,961,926
C2	LG26_F07	1375.5	5.2	frame	3	30,610,526	30,612,061	23	17,009,194	17,011,287
C2	LG_17.22	1386.1	5.6	frame	3	31,247,382	31,248,070	23	16,439,239	16,440,117
C2	38998996	1388.7	3.2	placed	3	31,413,397	31,413,487	23	16,278,082	16,278,172
C2	FCA148	1393.9	5.1	frame	3	31,203,231	31,211,496	23	16,342,282	16,612,799
C2	GORASP1	1410.2	7.4	frame	3	38,113,847	38,116,000	23	11,779,451	11,781,070
C2	39047674	-- --	binned	[GORASP1 - GLB1]	3	43,785,249	43,785,494	23	5,543,339	5,544,123
C2	LG9-14_B12	1415.4	4.7	placed	3	40,205,815	40,206,068	23	12,710,157	12,710,450
C2	38999057	1423.4	4.2	frame	3	44,020,945	44,021,379	23	5,339,595	5,339,990
C2	NM_016006	1425.9	2.0	placed	3	43,718,758	43,719,084	23	5,589,486	5,621,973
C2	GLB1	1428.8	4.2	frame	3	33,085,315	33,085,462	23	6,739,392	6,821,491
C2	38911486	1431.1	2.5	placed	3	35,335,889	35,336,005	23	8,458,372	8,458,488
C2	FCA917	1431.1	2.5	placed	3	34,613,010	34,613,343	23	7,835,870	7,836,202
C2	39079567	1444.8	3.6	frame	3	37,679,573	37,679,734	23	10,480,237	10,480,388
C2	LG34_G07	-- --	binned	[39079567 - 39017835]	3	40,614,439	40,615,036	23	13,034,341	13,035,203
C2	FCA916	-- --	binned	[39079567 - 39017835]	3	40,398,899	40,400,113	23	12,863,044	12,866,428
C2	39091213	1458.5	3.6	frame	3	40,494,403	40,494,526	23	12,932,058	12,932,183
C2	39017886	1468.8	4.7	frame	3	16,153				

D1	LG24_G04	0.0	9.2	frame	11	103,281,228	103,281,677	5	31,071,148	31,071,604
D1	LG24_A10	42.2	4.8	frame	11	103,945,677	103,946,342	5	30,454,067	30,455,606
D1	LG_19_27	51.9	4.8	frame	11	103,403,829	103,404,897	5	30,954,134	30,954,873
D1	MMP3	64.9	3.2	placed	11	102,211,742	102,219,530	5	31,976,903	31,985,612
D1	MMP7	86.6	6.8	frame	11	101,903,527	101,903,615	5	32,170,820	32,174,075
D1	ACAT1	132.1	1.6	frame	11	107,514,832	107,514,979	5	27,347,626	27,352,211
D1	FCA920	139.1	1.6	frame	11	107,208,829	107,209,005	5	27,601,328	27,601,564
D1	LG_19_50	156.2	3.6	frame	11	111,060,917	111,061,447	5	24,377,541	24,377,827
D1	LG31_E12	163.1	2.7	placed	11	110,448,094	110,451,253	5	24,899,828	24,899,656
D1	LG35_B09	167.7	3.6	frame	11	108,910,826	108,911,434	5	26,182,330	26,182,791
D1	IL18	177.4	6.1	frame	11	111,519,538	111,519,712	5	23,969,742	23,975,693
D1	LG22_B02	--	--	binnead [IL18 - FCA922]	11	111,775,020	111,775,533	5	23,738,949	23,739,486
D1	DRD2	194.9	5.9	frame	11	112,785,528	112,851,103	5	22,711,965	22,714,370
D1	FCA922	215.3	5.9	frame	11	116,128,588	116,128,653	5	19,788,223	19,788,433
D1	MGC13125	235.6	7.5	frame	11	116,222,307	116,222,453	5	19,707,208	19,709,177
D1	KIAA0999	250.0	7.5	frame	11	118,731,147	118,731,312	5	17,526,225	17,526,584
D1	Fc.23690	266.9	2.1	frame	11	117,536,639	117,536,716	5	18,508,033	18,508,267
D1	FCA193	275.9	2.1	frame	11	117,812,415	117,898,118	5	18,187,905	18,244,610
D1	MLL	280.3	2.4	placed	11	118,470,045	118,470,198	5	17,741,862	17,742,228
D1	H2AFX	291.8	9.2	frame	11	118,796,012	118,796,169	5	17,482,571	17,482,800
D1	THY1	328.8	7.9	frame	11	123,101,915	123,130,480	5	13,627,408	13,627,682
D1	FCA087	383.5	5.3	frame	11	122,045,808	122,046,548	5	14,592,590	14,593,143
D1	LG9_9_D06	415.8	0.5	placed	11	122,568,544	122,568,891	5	14,188,987	14,189,013
D1	FCA144	428.3	2.3	placed	11	122,785,093	122,785,156	5	13,970,556	13,970,609
D1	FCA1057	430.6	5.3	frame	11	126,015,134	126,015,600	5	10,889,192	10,889,628
D1	LG5_F01	439.8	0.3	placed	11	127,587,477	127,587,976	5	9,404,324	9,404,994
D1	LG34_D04	441.9	7.1	frame	11	125,055,828	125,055,910	5	11,809,981	11,810,143
D1	FCA1055	444.2	0.7	placed	11	125,121,402	125,124,900	5	11,653,530	11,653,780
D1	FATE	444.2	0.7	placed	11	125,679,309	125,720,705	5	11,126,965	11,127,260
D1	FCA923	446.4	2.0	placed	11	124,069,412	124,069,567	5	12,686,118	12,691,132
D1	SPA17	462.7	2.5	placed	11	125,637,503	125,637,693	5	11,219,490	11,219,871
D1	FLJ21103	478.8	4.0	frame	11	129,277,422	129,333,012	5	7,881,355	7,893,555
D1	FCA927	511.8	4.0	frame	11	100,414,313	100,506,465	21	3,470,504	3,574,043
D1	RGR	580.0	3.2	frame	11	95,607,712	95,608,028	21	7,934,838	7,935,115
D1	FCA928	654.4	6.0	frame	11	95,378,806	95,379,218	21	8,147,277	8,147,541
D1	FCA929	668.3	6.0	frame	11	91,346,416	91,348,676	21	11,586,152	11,586,456
D1	FCA930	696.2	4.9	frame	11	88,564,031	88,564,235	21	13,863,015	13,895,318
D1	FCA931	735.9	3.0	frame	11	85,818,745	85,823,568	21	16,134,729	16,134,913
D1	TYR	757.4	3.0	frame	11	81,915,986	81,916,313	21	19,581,304	19,581,450
D1	LG_17_46	776.4	3.4	frame	11	808.5	3.0	frame		
D1	FCA932	788.1	4.4	frame	11	77,673,479	77,679,776	21	23,571,926	23,572,570
D1	FCA933	808.5	3.0	frame	11	76,572,994	76,575,680	21	24,522,687	24,524,298
D1	FCA076	823.1	2.9	frame	11	4,457,192	4,457,539	21	29,890,395	29,890,787
D1	FCA067	844.0	2.9	frame	11	5,495,546	5,816,435	21	30,840,849	30,856,549
D1	LG9-16_C11	861.9	3.9	frame	11	5,203,272	5,204,877	21	30,429,631	30,429,755
D1	FCA347	874.2	6.5	frame	11	9,615,565	9,616,701	21	29,240,634	29,240,242
D1	HHB	884.0	4.6	frame	11	71,845,428	71,845,428	21	29,734,427	29,734,724
D1	39039465	894.0	2.3	frame	11	8,415,453	8,415,580	21	34,178,596	34,177,893
D1	FCA934	896.5	0.4	placed	11	6,109,765	6,110,157	21	31,667,225	31,667,509
D1	39014292	916.6	2.3	placed	11	6,745,811	6,746,004	21	32,365,617	32,365,779
D1	19_039new	923.4	1.9	frame	11	8,754,126	8,754,345	21	34,447,266	34,447,483
D1	39161041	933.3	1.5	frame	11	14,939,112	14,939,695	21	39,949,470	39,950,015
D1	LG26_B02	948.5	1.5	frame	11	15,630,574	15,630,699	21	40,707,206	40,707,354
D1	LG25_C12	948.5	1.0	placed	11	19,901,717	19,901,937	21	44,254,100	44,253,673
D1	LG21_B02	968.0	2.1	placed	11	11,441,840	11,442,084	21	36,819,253	36,819,594
D1	FCA936	979.6	2.9	frame	11	13,470,527	13,470,789	21	38,683,229	38,686,310
D1	39010310	985.2	0.3	placed	11	21,726,465	21,726,878	21	45,859,353	45,859,758
D1	FCA935	993.3	2.9	frame	11	10,465,352	10,465,493	21	35,899,761	35,899,144
D1	PTH	--	--	binnead [FCA936 - LDHA]	11	19,269,205	19,270,349	21	43,660,764	43,664,625
D1	LG23_C04	--	--	binnead [FCA936 - LDHA]	11	18,379,032	18,379,138	21	43,096,349	43,096,584
D1	39082390	1003.9	1.5	placed	11	18,224,033	18,224,173	21	42,896,807	42,897,294
D1	F49	1017.6	3.6	placed	11	32,365,897	32,413,653	18	45,710,376	45,713,940
D1	LDHA	1020.2	6.4	frame	11	30,211,913	30,211,994	21	52,554,682	52,554,770
D1	SAA	1032.9	6.4	frame	11	27,635,944	27,636,687	21	50,464,796	50,465,539
D1	WT1	1045.4	2.6	frame	11	26,859,206	26,859,304	21	49,697,509	49,697,873
D1	FSHB	1052.7	3.8	frame	11	28,510,375	28,510,550	21	51,181,427	51,181,983
D1	BDNF	1065.4	1.2	frame	11	32,808,995	32,809,135	18	45,359,309	45,359,525
D1	FCA937	1067.8	1.2	placed	11	25,680,182	25,683,120	21	48,911,218	48,915,698
D1	FCA741	1060.5	1.2	frame	11	23,967,496	23,983,480	21	47,548,595	47,555,457
D1	FCA940	1102.2	1.9	frame	11	34,508,139	34,510,337	18	43,914,960	43,915,154
D1	FCA938	--	--	binnead [FCA940 - FCA941]	11	34,434,178	34,434,369	18	43,986,371	43,986,671
D1	FCA939	1118.9	2.2	placed	11	34,597,511	34,597,630	18	43,823,122	43,823,425
D1	FCA998	1124.1	1.9	frame	11	35,243,647	35,243,881	18	43,244,890	43,244,869
D1	FCA941	1137.2	2.1	frame	11	35,641,236	35,784,617	18	42,818,763	42,818,800
D1	CAT	1150.5	1.9	frame	11	36,571,536	36,571,979	18	42,204,832	42,205,275
D1	FCA942	1155.8	0.2	placed	11	36,817,276	36,817,742	18	41,995,474	41,995,917
D1	SLC1A2	1158.5	1.9	frame	11	38,225,999	38,226,251	18	40,846,328	40,846,575
D1	FCA180	1164.1	0.1	placed	11	41,371,639	41,371,990	18	38,335,754	38,337,970
D1	RAG2	1172.0	2.9	placed	11	44,224,898	44,225,365	18	55,323,850	55,324,510
D1	LG34_D09	1178.3	1.2	placed	11	47,745,271	47,745,466	18	52,245,753	52,246,226
D1	FCA239	1181.0	3.3	frame	11	54,990,893	54,991,659	18	51,431,336	51,432,123
D1	39011723	1194.2	3.2	frame	11	56,724,957	56,725,193	18	49,473,148	49,473,642
D1	38994207	1214.2	3.5	frame	11	61,033,693	61,035,064	18	65,256,909	65,257,787
D1	39082488	1232.1	3.5	frame	11	61,016,671	61,018,788	18	65,268,040	65,270,321
D1	38994420	1252.4	4.9	frame	11	60,773,993	60,774,057	18	65,482,941	65,481,436
D1	39095427	1260.0	4.9	frame	11	64,962,322	64,965,032	18	62,109,983	62,112,094
D1	Fc.132216(XM_372411)	1272.8	6.6	frame	11	68,432,317	68,432,386	18	59,439,487	59,439,990
D1	FCA943	1280.4	6.6	frame	11	69,025,753	69,025,837	18	58,982,228	58,981,861
D1	PGAS	1283.1	1.3	placed	11	65,592,195	65,592,380	18	61,553,035	61,553,899
D1	FCA944	1285.8	2.9	placed	11	65,403,860	65,407,795	18	61,737,292	61,741,486
D1	IGHMBP2	1293.7	1.1	frame	11	62,138,294	62,138,566	18	64,385,408	64,386,088
D1	39011591	--	--	binnead [FCA943 - SF3B2]	11	2,550,650	2,550,794	18	56,947,190	56,959,004
D1	39036248	--	--	binnead [FCA943 - SF3B2]	11	999,681	999,817	18	55,695,952	55,697,270
D1	SF3B2	1307.0	1.1	frame	11	523,786	523,946	18	36,194,527	36,194,953
D1	GTSW	1312.0	1.1	placed	11					
D1	ROM1	1325.0	0.8	placed	11					
D1	KCNQ1	1356.5	2.1	placed	11					
D1	AP2A2	1377.3	2.0	frame	11					
D1	HRA5	1394.9	2.0	frame	11					

D2	38911684	0.0	9.8	placed	10	52,520,651	52,520,945	26	38,847,402	38,847,864
D2	FCA924	2.2	9.1	placed	10	51,863,153	51,863,323	26	39,350,871	39,351,154
D2	LG26_B03	9.1	7.8	placed	10	53,029,302	53,029,691	26	38,374,551	38,374,944
D2	38114472	28.2	3.8	placed	10	38,168,456	38,168,683	4	3,168,942	3,168,588
D2	39082533	34.9	2.9	placed	10	236,325,747	236,325,844	4	3,578,023	3,577,473
D2	CHRM3	37.2	4.1	placed	1	235,875,906	236,398,484	4	3,508,839	3,510,465
D2	FCA091	48.9	3.3	frame	1	234,224,809	234,228,596	4	4,861,231	4,865,722
D2	FCA925	55.6	4.1	placed	1	233,531,742	234,322,694	4	4,912,531	4,913,135
D2	ZP4	60.1	3.3	frame	1	234,377,751	234,379,976	4	5,326,341	5,332,925
D2	38966117	71.5	2.5	placed	1	233,129,222	233,129,401	4	6,465,899	6,465,548
D2	LGALS8	76.0	7.2	frame	1	233,037,422	233,037,565	4	6,550,595	6,551,092
D2	FCA262	100.2	2.8	frame	1	231,710,913	231,711,060	4	7,708,035	7,708,194
D2	FCA926	114.2	1.6	frame	1	229,538,307	229,701,826	4	9,543,837	9,546,015
D2	39089548	125.8	1.6	frame	1	229,455,080	229,455,259	4	9,688,160	9,688,439
D2	LG_10_H02	182.9	4.9	placed	1	226,533,019	226,533,336	4	12,235,412	12,238,743
D2	LG_20_68	224.9	1.8	frame	1	225,913,028	225,913,506	4	12,792,673	12,793,189
D2	FCA462	242.3	1.8	frame	1	225,600,494	225,600,641	4	13,067,472	13,067,601
D2	FCA946	279.5	0.2	placed	10	59,943,928	59,944,003	4	13,925,298	13,925,648
D2	FCA945	281.8	2.5	frame	10	59,943,928	59,943,980	4	13,925,296	13,925,648
D2	FCA477	293.9	2.5	frame	10	60,131,840	60,258,657	4	14,068,027	14,068,156
D2	39036202	307.2	7.2	frame	10	60,724,483	60,724,633	4	14,714,512	14,714,842
D2	EGR2	321.1	7.2	frame	10	64,243,310	64,243,368	4	17,897,260	17,897,327
D2	FCA263	346.2	3.2	placed	10	65,452,444	65,452,626	4	18,900,030	18,900,501
D2	FCA081	380.9	7.5	frame	10	66,427,247	66,427,256	4	19,486,010	19,486,092
D2	39012557	413.5	8.2	frame	10	69,352,219	69,352,904	4	22,414,389	22,415,121
D2	39051935	434.4	4.1	frame	10	72,948,799	72,949,055	4	25,482,165	25,491,863
D2	FCA948	442.2	4.1	frame	10	72,049,207	72,049,276	4	24,712,096	24,712,225
D2	FCA947	456.0	5.7	frame	10	71,326,200	71,326,729	4	24,127,701	24,128,179
D2	RBP3	488.7	6.8	frame	10	48,009,721	48,010,695	4	38,177,136	38,178,285
D2	OPN4	505.6	2.1	placed	10	88,404,377	88,416,192	4	37,549,241	37,559,136
D2	FCA949	511.0	2.6	frame	10	85,662,463	85,831,859	4	35,297,560	35,299,650
D2	FCA035	519.0	2.6	frame	10	85,738,330	85,738,671	4	35,503,499	35,503,761
D2	VCL	526.9	2.6	frame	10	75,427,928	75,549,783	4	27,609,892	27,723,759
D2	FCA951	529.5	3.8	placed	10	77,559,568	77,559,604	4	29,472,128	29,472,308
D2	38967938	540.7	2.6	frame	10	80,793,758	80,793,943	4	32,231,311	32,231,069
D2	FCA950	546.4	1.0	placed	10	82,272,588	82,272,749	4	32,843,312	32,843,780
D2	GHITM	563.4	4.2	frame	10	85,900,459	85,900,610	4	35,619,600	35,621,362
D2	LG9-16_F07	--	--	binned	10	78,592,372	78,592,696	4	30,320,756	30,321,101
D2	PLAU	587.2	1.1	frame	10	75,342,119	75,342,209	4	27,535,626	27,536,060
D2	FCA952	604.6	1.1	frame	10	74,289,756	74,289,170	4	26,689,553	26,689,745
D2	FCA107	644.0	5.0	frame	10	49,597,082	49,599,183	28	3,647,982	3,648,322
D2	CHAT	659.5	4.1	frame	10	50,487,147	50,543,156	28	4,491,076	4,491,265
D2	FCA953	678.1	0.4	placed	10	104,172,997	104,182,343	28	10,649,983	10,650,060
D2	38986264	683.1	2.0	frame	10	94,202,299	94,203,000	28	9,854,614	9,855,336
D2	RET	690.6	2.0	frame	10	42,892,518	42,945,799	28	6,958,681	6,983,546
D2	SDF1B	698.0	4.8	placed	10	44,196,220	44,196,326	28	5,904,140	5,911,754
D2	LG1_E10	703.2	8.1	frame	10	44,116,212	44,117,137	28	5,979,352	5,979,989
D2	GOT1	723.7	0.7	placed	10	101,146,618	101,181,214	28	15,370,617	15,365,457
D2	LOC159291(TBG9)	743.4	0.5	placed	10	99,524,855	99,614,043	28	14,091,557	14,098,789
D2	FCA557	748.8	3.5	frame	10	99,517,989	99,518,311	28	14,013,706	14,014,293
D2	FCA078	754.4	3.2	placed	10	102,258,759	102,259,284	28	16,241,643	16,241,110
D2	39019848	754.4	3.2	placed	10	102,260,826	102,260,871	28	16,243,092	16,243,966
D2	FCA957	757.2	2.5	frame	10	104,582,273	104,582,421	28	18,308,562	18,309,830
D2	CYP17	768.4	3.7	frame	10	105,871,806	105,876,131	28	19,456,756	19,457,237
D2	LOC119392	790.5	3.1	frame	10	103,040,211	103,040,816	28	16,936,229	16,936,693
D2	LG35_D11	804.0	3.1	frame	10	105,351,564	105,351,110	28	18,985,733	18,985,810
D2	FCA956	818.0	5.7	frame	10	109,516,885	109,517,057	28	21,803,468	21,803,786
D2	FCA955	835.2	0.2	placed	10	106,049,967	106,050,130	28	19,622,906	19,623,259
D2	39085051	840.7	2.1	frame	10	109,387,646	109,388,095	28	22,502,777	22,503,272
D2	LG9-15_D03	849.3	1.7	frame	10	111,305,345	111,305,367	28	8,575,684	8,575,924
D2	FCA366	860.8	1.7	frame	10	112,409,945	112,409,996	28	25,023,233	25,023,488
D2	39017394	904.4	2.3	frame	10	114,372,954	114,373,119	28	26,696,950	26,697,289
D2	FCA668	915.1	1.2	frame	10	112,828,180	112,828,293	28	25,404,033	25,404,148
D2	ADRA2A	929.1	0.7	placed	10	118,599,018	118,632,012	28	30,375,570	30,375,989
D2	LG_19_81	937.2	1.2	frame	10	118,588,972	118,589,623	28	30,422,124	30,422,709
D2	ADRB1	945.3	1.9	frame	10	115,793,882	115,794,679	28	27,945,557	27,947,007
D2	LG_18_30	964.5	5.3	frame	10	114,467,243	114,467,817	28	26,782,559	26,783,026
D2	F41	1003.2	6.5	frame	10	122,317,923	122,320,296	28	33,596,344	33,600,383
D2	BUB3	1032.7	5.8	frame	10	124,903,877	124,914,869	28	35,714,515	35,798,963
D2	TRABID	--	--	binned	10	126,663,313	126,663,554	28	37,276,163	37,276,649
D2	OAT	1047.4	5.4	frame	10	126,075,862	126,097,509	28	36,785,467	36,801,559
D2	LG30_A10	1059.7	5.4	frame	10	127,981,894	127,982,311	28	38,436,775	38,437,204
D2	39012579	1059.7	2.5	placed	10	128,143,241	128,143,393	28	38,555,230	38,555,635
D2	LG21_E11	1072.4	3.2	frame	10	129,654,726	129,656,647	28	39,810,086	39,811,517
D2	39006872	1084.7	3.2	frame	10	132,850,849	132,850,942	28	42,472,314	42,474,493

D3	38988695	0.0	0.9	frame
D3	CHFR	41.5	0.9	frame
D3	FCA959	75.3	7.4	frame
D3	FCA137	90.2	1.5	placed
D3	39011701	99.9	6.0	frame
D3	39084907	106.8	6.0	frame
D3	MAPKAPKS	126.3	2.8	frame
D3	ATP2A2	140.5	2.8	frame
D3	ALDH2	159.7	7.6	frame
D3	FL114827	178.6	7.6	frame
D3	39083183	194.9	2.2	frame
D3	PBP	201.5	2.2	frame
D3	TCF1	215.5	6.8	frame
D3	39041783	237.3	2.3	frame
D3	FCA200	251.3	2.3	frame
D3	FCA523	262.8	5.6	frame
D3	IGLC6	265.1	3.4	placed
D3	GNAZ	279.4	5.8	frame
D3	SLC5A1	300.9	2.2	frame
D3	FCA249	317.3	2.0	frame
D3	LG30_E12	328.7	4.5	frame
D3	LG34_A07	337.9	2.5	frame
D3	39029426	340.1	0.2	placed
D3	FCA961	344.6	2.5	frame
D3	39006550	353.6	2.3	placed
D3	FCA960	355.8	4.9	frame
D3	LG_20.19	374.6	6.6	frame
D3	39006741	425.7	2.9	frame
D3	SLC25A1	432.9	2.9	frame
D3	FCA026	463.3	5.0	frame
D3	LG_18.83	463.3	5.0	frame
D3	38995493	484.5	5.0	frame
D3	FCA964	541.8	1.9	placed
D3	FCA963	579.5	0.9	frame
D3	LG9-13_G11	604.4	0.9	frame
D3	LAMA1	618.7	0.9	frame
D3	FCA968	635.3	7.1	frame
D3	FCA962	657.1	1.4	frame
D3	FCA132	671.0	1.4	frame
D3	FCA969	680.2	1.4	frame
D3	FCA066	696.5	4.8	frame
D3	NPC1	718.4	5.8	frame
D3	38970733	738.2	3.5	frame
D3	TYMS	757.6	2.5	frame
D3	FCA675	782.1	3.7	frame
D3	CDH2	809.4	3.7	frame
D3	39025040	846.1	3.1	frame
D3	39063491	865.8	2.7	frame
D3	LG_17.31	893.6	2.0	frame
D3	LG9-16_A03	--	--	binmed [LG_17.31 - FCA603]
D3	39063649	924.4	2.3	frame
D3	LG5_H10M	931.5	1.0	placed
D3	FCA603	940.8	2.3	frame
D3	39063525	968.4	4.6	frame
D3	FCA969	994.9	3.4	placed
D3	LG_19.52	1027.3	3.9	frame
D3	LG24_F12	1051.8	4.4	frame
D3	LG34_B07	1065.8	1.1	frame
D3	39063129	1072.7	1.1	frame
D3	RD114-8H	1084.4	1.6	frame
D3	MC4R	1091.5	1.4	placed
D3	FCA221	1098.5	2.1	frame
D3	LG33_A11	1110.1	2.1	frame
D3	BCL2	1117.0	0.3	placed
D3	38974461	1142.0	3.4	frame
D3	FCA277	1156.1	4.3	frame
D3	FCA971	1165.5	4.3	frame
D3	LG23_H09	1177.7	4.4	frame
D3	LG30_A11	1198.1	6.3	frame
D3	LG33_B02_M	1207.7	6.3	frame
D3	FCA970	1219.7	7.9	frame
D3	HSPC154	1233.9	4.1	frame
D3	LG9-14_C08	1268.4	1.4	frame
D3	39085096	--	--	binmed [HSPC154 - LG35_D05]
D3	LG35_D05	1280.1	1.4	frame
D3	39078552	1292.1	3.6	placed
D3	FCA623	1312.9	1.2	placed
D3	MAN2A2	1351.2	3.2	frame

12	126,285,800	126,285,992	26	5,704,817	5,704,591
12	132,027,861	132,027,997	26	3,327,586	3,328,037
12	124,265,221	124,265,404	26	7,919,370	7,919,516
12	123,809,537	123,809,675	26	8,275,659	8,275,819
12	121,251,799	121,251,912	26	10,289,843	10,289,573
12	110,789,408	110,789,544	26	12,594,258	12,594,659
12	109,228,081	109,228,542	26	11,326,085	11,386,887
12	110,691,020	110,691,127	26	12,518,995	12,519,106
12	112,092,703	112,092,748	26	13,733,951	13,734,238
12	115,645,182	115,645,369	26	16,580,063	16,580,404
12	117,036,643	117,046,107	26	17,692,578	17,692,904
12	119,894,163	119,894,280	26	19,988,655	19,988,900
22	23,341,456	23,341,611	26	30,351,231	30,351,058
22	23,160,148	23,160,148	26	30,189,594	30,189,618
22	30,805,118	30,805,561	26	29,721,277	29,721,386
22	21,580,600	21,580,700	26	28,999,635	29,661,798
22	21,737,226	21,791,772	26	29,823,338	29,853,246
22	30,805,020	30,805,173	26	28,071,943	28,071,213
22	30,553,857	30,553,981	26	27,833,741	27,834,063
22	28,775,035	28,775,411	26	26,364,398	26,364,774
22	28,106,245	28,106,963	26	25,824,958	25,825,752
22	28,449,586	28,449,743	26	26,062,149	26,061,882
22	27,679,916	27,682,851	26	25,442,449	25,451,935
22	26,860,781	26,860,982	26	24,712,111	24,712,786
22	26,790,912	26,798,995	26	24,651,189	24,659,276
22	25,387,329	25,388,066	26	23,439,964	23,440,562
22	18,645,917	18,645,981	26	31,092,792	31,092,159
22	17,537,649	17,540,897	26	32,021,910	32,022,205
18	44,419,169	44,419,234	7	82,461,904	82,462,021
18	12,756,414	12,756,670	7	80,629,190	80,629,661
18	10,883,002	10,883,228	7	79,162,426	79,162,083
18	10,111,790	10,112,121	7	78,531,049	78,531,481
18	7,741,169	7,743,232	7	76,455,268	76,455,645
18	7,906,283	7,906,441	7	76,622,919	76,623,668
18	6,933,218	6,933,400	7	75,781,553	75,784,209
18	5,456,474	5,456,676	7	74,918,038	74,918,236
18	2,017,125	2,020,398	7	71,152,732	71,154,887
18	3,893,780	3,893,860	7	72,899,370	72,899,587
18	4,119,715	4,120,953	7	73,118,062	73,119,107
18	19,365,461	19,420,399	7	67,230,249	67,268,124
18	19,134,507	19,134,735	7	67,443,731	67,444,201
18	660,757	660,845	7	69,966,805	69,967,232
18	20,146,046	20,146,110	7	66,618,613	66,618,696
18	23,766,840	24,011,406	7	63,422,818	63,606,208
18	28,141,838	28,142,005	7	60,012,146	60,011,960
18	36,199,411	36,199,612	7	52,897,403	52,897,181
18	30,845,178	30,845,481	7	57,596,115	57,596,417
18	39,160,934	39,163,457	7	50,129,116	50,131,240
18	40,423,851	40,423,927	7	49,103,913	49,103,706
18	43,675,182	43,675,883	7	46,337,914	46,338,663
18	42,663,688	42,677,394	7	47,130,840	47,139,992
18	48,592,407	48,592,527	1	25,376,983	25,376,676
18	52,231,113	52,232,161	1	22,244,308	22,244,555
18	53,544,668	53,545,534	1	21,123,133	21,123,526
18	54,105,708	54,106,194	1	20,632,428	20,633,188
18	54,737,100	54,737,922	1	20,103,809	20,103,016
18	56,189,564	56,190,562	1	19,024,819	19,025,797
18	57,147,279	57,147,618	1	18,283,650	18,283,901
18	59,296,850	59,297,596	1	16,474,628	16,475,058
18	58,941,568	59,136,910	1	16,625,147	16,791,057
18	61,736,052	61,736,274	1	14,555,088	14,554,798
18	62,999,668	62,999,811	1	13,493,490	13,493,843
18	64,674,462	64,674,842	1	12,156,425	12,156,486
18	65,660,016	65,660,563	1	11,330,931	11,331,483
18	70,012,499	70,012,609	1	8,023,562	8,023,967
18	68,204,368	68,204,455	1	9,368,853	9,369,401
18	68,272,611	68,272,991	1	9,325,035	9,325,297
18	69,976,405	69,976,469	1	8,048,094	8,048,856
18	71,229,891	71,230,535	1	7,009,645	7,010,326
18	71,349,057	71,349,231	1	6,803,741	6,803,481
18	72,291,382	72,291,626	1	6,184,203	6,186,440
18	74,655,500	74,655,701	1	4,422,958	4,422,726
18	72,047,200	72,061,560	1	6,352,129	6,366,113
18	42,029,897	42,040,082	7	47,667,028	47,669,232

D4	LG9-13_B01	0.0	5.1	frame	9	69,219,639	69,219,669	1	90,673,355	90,673,894
D4	LG25_F09	--	--	blinded	9	95,900,664	96,002,672	1	102,000,652	102,000,915
D4	LG2_B07	40.4	1.4	placed	9	1,931,781	1,932,163	1	93,292,870	93,293,250
D4	38986218	45.1	6.0	frame	9	2,085,709	2,085,866	1	93,439,893	93,439,411
D4	LG5_B11	50.0	2.0	placed	9	2,862,893	2,863,619	1	94,126,205	94,126,495
D4	38968151	65.2	2.4	frame	9	3,668,776	3,668,844	1	94,816,381	94,816,470
D4	39015114	72.1	2.3	frame	9	71,508,855	71,508,972	1	88,694,419	88,693,940
D4	LG_17_10	79.1	2.3	frame	9	76,081,431	76,083,552	1	84,835,192	84,835,525
D4	FCA641	103.9	4.4	frame	9	79,505,523	79,517,680	1	81,821,370	81,836,605
D4	39014295	120.2	4.4	frame	9	79,225,629	79,225,718	1	82,073,964	82,073,215
D4	38968072	138.9	3.4	frame	9	82,264,079	82,264,297	1	79,622,765	79,622,507
D4	39079389	155.2	3.4	frame	9	85,222,337	85,222,627	1	76,940,380	76,940,108
D4	38967884	207.6	10.3	placed	9	5,959,231	5,959,464	11	28,365,771	28,366,008
D4	FCA742	266.0	4.8	frame	9	8,007,100	8,010,485	11	30,260,054	30,264,371
D4	lg9-15_c02	282.5	4.3	frame	9	8,848,867	8,850,010	11	31,009,930	31,010,063
D4	LG_18_46	294.1	4.3	frame	9	9,631,057	9,632,969	11	31,746,166	31,746,940
D4	FCA743	308.1	3.0	frame	9	10,192,351	10,194,104	11	32,274,736	32,276,815
D4	FCA744	319.8	3.0	frame	7	134,526,257	134,527,052	16	5,085,382	5,087,563
D4	FCA976	411.8	9.0	frame	9	13,952,172	13,952,288	11	35,863,085	35,863,342
D4	IFN1	450.4	0.6	frame	9	21,340,464	21,340,533	11	42,078,668	42,078,907
D4	IFN1	458.1	0.6	frame	9	21,067,766	21,067,852	11	42,018,201	42,018,514
D4	CDKN2B	480.9	7.8	frame	9	21,995,985	21,999,271	11	42,615,242	42,620,557
D4	39036257	510.7	2.4	frame	9	26,396,476	26,396,765	11	46,075,232	46,074,931
D4	LG_19_38	521.6	2.4	frame	9	26,553,184	26,553,633	11	46,199,965	46,200,406
D4	FCA618	535.3	6.0	frame	9	27,317,022	27,317,703	11	46,812,137	46,813,387
D4	FCA030	557.6	1.8	frame	9	28,798,622	28,798,690	11	48,113,846	48,114,094
D4	FCA975	583.6	3.5	frame	9	32,447,130	32,516,113	11	50,127,677	50,127,881
D4	VCP	628.5	3.7	frame	9	35,062,337	35,062,502	11	52,996,079	53,000,355
D4	KIAA0258	643.3	3.7	frame	9	35,743,646	35,743,803	11	53,629,245	53,629,628
D4	FCA242	664.7	2.7	frame	9	37,116,333	37,344,795	11	55,052,253	55,052,528
D4	LOC259308	678.0	2.2	frame	9	34,710,299	34,710,359	11	52,742,586	52,788,393
D4	FCA974	685.8	2.2	frame	9	34,059,149	34,060,785	11	52,185,189	52,185,352
D4	CNTFR	703.4	6.3	frame	9	34,863,643	34,902,332	11	52,585,338	52,585,642
D4	39077294	733.4	4.9	frame	9	99,208,009	99,208,507	11	57,749,242	57,748,602
D4	38995335	756.2	3.9	placed	9	103,943,761	103,943,972	11	61,468,035	61,468,308
D4	FCA985	762.1	5.4	frame	9	104,755,981	104,810,168	11	62,276,704	62,277,295
D4	FCA134	780.3	4.7	frame	9	110,041,454	110,059,699	11	66,567,814	66,579,623
D4	TXN	789.0	4.7	frame	9	110,085,856	110,098,342	11	66,608,525	66,608,777
D4	38988227	798.4	4.7	frame	9	111,124,824	111,125,042	11	67,374,252	67,373,861
D4	AMBP	814.1	2.1	frame	9	113,901,964	113,920,269	11	69,719,066	69,732,164
D4	461	836.7	2.1	frame	9	116,465,450	116,465,886	11	71,782,556	71,783,022
D4	FCA746	870.3	2.4	frame	9	115,310,914	115,314,260	11	70,829,068	70,832,100
D4	FCA650	887.8	2.4	frame	9	116,028,987	116,224,322	11	71,370,648	71,370,807
D4	TLR4	903.3	4.4	frame	9	117,555,905	117,556,417	11	72,735,520	72,746,301
D4	LG35_B12	919.5	5.1	frame	9	117,718,288	117,719,081	11	72,904,504	72,904,942
D4	DBCRC1	935.1	5.1	frame	9	119,008,462	119,211,281	11	74,009,733	74,128,918
D4	FCA984	955.0	2.6	placed	9	121,038,859	121,039,909	11	75,559,881	75,560,033
D4	GGTA1	961.4	1.4	placed	9	121,288,745	121,309,754	9	53,589,422	53,609,344
D4	FCA045	961.4	6.3	frame	9	125,078,439	125,082,903	9	50,414,701	50,419,314
D4	HSPA5	970.6	6.3	frame	9	127,573,867	127,577,103	9	48,208,907	48,232,164
D4	FCA983	983.5	4.3	frame	9	127,557,912	127,573,433	9	48,227,378	48,240,213
D4	Fc.178009	1004.5	4.3	frame	9	128,944,234	128,944,400	9	47,136,137	47,138,306
D4	CRAT	1030.1	5.6	frame	9	128,005,372	128,005,753	9	47,883,125	47,883,501
D4	FCA978	1050.5	3.4	frame	9	133,052,674	133,053,127	9	43,845,286	43,846,716
D4	FCA977	1068.4	3.4	frame	9	135,680,086	135,680,219	9	42,209,150	42,211,170
D4	FCA980	1095.4	0.8	frame	9	133,089,894	133,097,276	9	42,272,799	42,289,809
D4	FCA979	1109.4	0.2	placed	9	135,622,950	135,625,878	9	43,798,598	43,800,745
D4	LG31_B05	1114.9	2.4	frame	9	133,257,894	133,272,524	9	42,339,154	42,345,653
D4	SURF4	1129.8	1.9	frame	9	135,213,652	135,237,969	9	43,462,491	43,462,513
D4	FCA982	1145.2	2.2	frame	9	137,149,280	137,149,422	9	41,187,491	41,190,745
D4	PTGDS	1155.1	2.2	frame	9	137,772,306	137,773,420	9	40,713,872	40,714,523
D4	LG30_D06	1155.1	0.4	placed	9	133,013,515	133,013,639	9	42,272,810	42,273,434
D4	LG9-14_F10	1155.1	0.2	placed	9	135,679,587	135,684,587	9	42,216,671	42,234,121
D4	PAEP	1164.9	1.0	frame	9					

E1	LG34_F07	0.0	4.7	frame	17	13,585,125	13,585,476	5	40,569,617	40,560,188
E1	LG34_E09	13.3	1.5	placed	17	10,967,611	10,968,117	5	38,290,716	38,291,203
E1	LG9-14_H01	23.9	1.5	frame	17	13,893,763	13,894,762	5	40,820,668	40,821,077
E1	FCA987	34.1	1.5	frame	17	14,425,344	14,425,522	5	41,232,317	41,232,788
E1	FCA986	61.0	4.3	placed	17	14,248,137	14,248,220	5	41,103,600	41,103,975
E1	RCV1	98.1	1.2	placed	17	9,741,752	9,749,409	5	37,294,618	37,301,424
E1	UBB	128.0	0.9	placed	17	16,224,870	16,233,604	5	42,517,533	42,518,621
E1	ULK2	138.2	2.0	placed	17	19,620,060	19,620,178	5	43,415,116	43,416,370
E1	39082591	153.7	5.0	frame	17	21,854,940	21,855,584	5	42,517,853	42,518,586
E1	39062353	177.9	0.1	placed	17	21,028,272	21,028,379	5	45,640,893	45,641,106
E1	LG9-14_G04	180.3	5.0	frame	17	21,113,509	21,113,695	5	45,701,437	45,701,633
E1	PEMT	195.8	5.0	frame	17	17,356,633	17,356,694	5	44,923,997	44,936,092
E1	FCA140	211.5	2.9	placed	17	19,127,020	19,178,160	5	43,959,033	43,959,106
E1	TP53	255.5	3.5	placed	17	7,518,225	7,518,335	5	35,551,643	35,545,095
E1	FCA988	360.3	4.4	frame	17	2,704,040	2,881,042	9	39,544,366	39,544,587
E1	ITGAE(CD103)	374.2	2.4	frame	17	3,564,671	3,651,286	9	40,139,163	40,202,283
E1	HIC1	383.2	2.4	frame	17	1,909,500	1,909,734	9	38,765,829	38,766,139
E1	PITPN	394.6	1.0	placed	17	1,369,318	1,412,851	9	38,285,767	38,326,927
E1	CRK	396.8	6.9	frame	17	1,271,825	1,272,127	9	38,200,116	38,229,317
E1	SLO6A4?	418.2	12.5	frame	17	25,549,056	25,573,174	9	36,826,458	36,848,276
E1	LG4_A04	427.3	0.1	placed	17	25,411,216	25,411,294	9	36,703,826	36,704,026
E1	CRYBA1	457.3	3.4	frame	17	24,598,000	24,605,626	9	35,979,593	35,979,776
E1	F124	466.6	3.4	frame	17	24,734,942	24,738,574	9	36,088,500	36,096,104
E1	38911667	496.0	0.8	frame	21	27,197,151	27,204,155	31	25,242,326	25,242,725
E1	PROCA1	528.1	0.8	frame	17	24,054,617	24,063,008	9	35,500,007	35,501,395
E1	NF1	553.0	6.9	frame	17	26,583,965	26,584,292	9	34,210,681	34,210,995
E1	Fc.8179	572.8	6.9	frame	17	27,203,259	27,203,306	9	33,699,910	33,700,192
E1	Fc.3447	593.9	6.7	frame	17	28,348,925	28,348,992	9	32,690,281	32,693,348
E1	FCA005	613.8	6.7	frame	17	29,001,738	29,004,979	9	32,089,358	32,089,542
E1	39030013	643.0	0.3	frame	17	20,283,056	20,283,181	9	30,158,268	30,158,833
E1	CCL5	657.8	4.1	frame	17	31,222,639	31,231,443	9	30,413,390	30,419,589
E1	FCA989	672.2	4.1	frame	17	29,780,790	29,781,158	9	31,470,365	31,470,753
E1	FCA082	780.8	0.8	placed	17	56,665,187	56,665,286	9	27,984,662	27,984,946
E1	39060241	786.4	2.6	frame	17	56,820,673	56,820,762	9	27,852,614	27,852,384
E1	SUP74H1	794.9	2.6	frame	17	53,784,374	53,784,486	9	25,589,664	25,589,365
E1	MTMR4	797.7	0.3	placed	17	53,922,820	53,923,071	9	25,705,460	25,705,851
E1	LG6_E10M	819.4	5.6	frame	17	52,872,774	52,873,041	9	24,778,693	24,778,995
E1	FCA050	857.2	3.4	placed						
E1	LG3_B06	876.3	2.0	placed	17	52,098,123	52,098,513	9	24,118,608	24,118,977
E1	LG9-14_G02	906.6	0.4	placed	17	49,343,303	49,343,855	9	21,943,889	21,944,360
E1	39063602	924.2	3.4	frame	17	50,749,060	50,749,148	9	23,034,228	23,034,316
E1	FCA567	945.0	3.4	frame	17	47,065,836	47,363,726	9	20,143,665	20,150,424
E1	HOXB	972.7	5.2	frame	17	43,961,645	44,047,559	9	17,454,967	17,456,394
E1	39063378	975.3	2.1	placed	17	43,481,002	43,481,234	9	17,007,747	17,007,177
E1	FCA992	988.7	5.2	frame	17	33,943,058	34,064,853	9	16,282,750	16,283,063
E1	38994228	1010.7	4.2	placed	17	45,802,378	45,802,477	9	19,001,266	19,000,985
E1	SGCA	1018.5	2.2	placed	17	45,603,794	45,603,931	9	18,831,115	18,831,519
E1	CSF3	1032.2	6.3	placed	17	35,425,469	35,425,624	9	15,192,204	15,194,072
E1	STAT5B	1040.0	2.2	placed	17	37,607,166	37,607,408	9	13,372,182	13,373,613
E1	FCA298	1042.5	3.3	placed	17	37,942,932	37,970,055	9	13,055,369	13,073,871
E1	FCA990	1050.6	0.4	placed	17	37,664,520	37,665,820	9	13,325,113	13,325,596
E1	LG27_C10	1058.5	0.2	placed	17	38,037,838	38,038,713	9	12,998,212	12,999,311
E1	BRCA1	1061.0	6.1	frame	17	38,498,874	38,500,243	9	12,641,825	12,644,675
E1	FLJ31795	--	--	binmed [BRCA1 - GHJ]	17	40,111,446	40,111,642	9	11,440,946	11,441,391
E1	FCA993	--	--	binmed [BRCA1 - GHJ]	17	40,697,786	40,723,894	9	10,876,761	10,877,263
E1	MYL4	--	--	binmed [BRCA1 - GHJ]	17	42,641,783	42,658,044	9	10,402,162	10,413,291
E1	38966150	--	--	binmed [BRCA1 - GHJ]	17	31,264,453	31,264,729	9	10,711,784	10,714,348
E1	FCA991	1061.0	1.0	placed	17	38,179,020	38,202,125	9	12,885,392	12,885,731
E1	Fc.182584	1072.1	2.4	placed	17	39,638,134	39,638,349	9	11,842,051	11,842,464
E1	HIS1	1074.7	6.1	frame	17	40,583,318	40,584,051	9	11,033,986	11,034,340
E1	GHI	1088.1	4.2	frame	17	59,349,433	59,349,533	9	7,815,566	7,815,684
E1	SCN4A	1096.0	1.5	placed	17	59,373,907	59,374,044	9	7,795,881	7,796,179
E1	Fc.19235	1101.4	4.2	frame	17	59,470,286	59,470,521	9	7,718,308	7,718,784
E1	FCA312	1115.9	1.4	frame	17	62,330,196	62,332,367	9	6,085,718	6,086,855
E1	LG30_D09	1124.2	1.4	frame	17	61,151,610	61,153,068	9	5,211,764	5,212,280
E1	DDX5	1132.4	1.4	frame	17	59,925,213	59,925,723	9	7,346,239	7,346,760
E1	39014260	1143.9	3.5	frame	17	65,521,760	65,521,974	9	3,328,805	3,329,218
E1	38988761	1187.3	3.2	frame	9	100,145,464	100,145,713	11	58,560,459	58,560,956
E1	SSTR2	1217.9	3.2	frame	17	68,672,755	68,679,655	18	23,750,690	23,757,458
E1	H3F3B	1239.5	6.0	frame	17	71,285,137	71,287,475	18	25,952,302	25,953,518
E1	TK1	1283.6	3.6	frame	17	73,681,857	73,682,128	18	27,789,121	27,800,193
E1	TIMP2	1301.1	3.6	frame	17	74,399,256	74,410,878	18	28,216,781	28,228,782
E1	ACTG1	1337.0	6.2	frame	17	77,095,976	77,096,123	18	30,151,842	30,153,525
E1	PDE6G	1363.2	3.4	frame	17	77,230,588	77,230,742	18	30,261,568	30,263,070
E1	P4HB	1376.5	3.8	placed	17	77,397,591	77,397,630	18	30,356,560	30,356,611
E1	FCA113	1379.8	2.1	frame	17	76,925,761	76,954,389	18	30,002,452	30,029,354
E1	FCA994	1389.9	2.1	frame	17	76,166,068	76,166,378	18	29,455,373	29,455,423

E2	LG9-16_F10	0.0	3.8	frame	19	60,917,128	60,917,600	1	104,707,346	104,707,696
E2	PRKCG	15.3	0.2	placed	19	59,077,366	59,102,178	1	105,988,751	106,006,003
E2	TNN13	20.0	4.7	frame	19	60,357,209	60,357,388	1	105,167,291	105,168,975
E2	FCA070	27.1	4.7	frame	19	58,659,278	58,715,897	1	106,384,687	106,385,094
E2	FCA589	39.5	4.2	frame						
E2	39086418	57.6	2.9	frame	19	63,147,085	63,147,271	1	102,663,601	102,663,785
E2	FCA997	--	--	binnead	19	54,560,910	54,569,816	1	109,375,794	109,377,938
E2	ZNF134	62.3	3.4	placed	19	62,824,834	62,824,754	1	103,060,843	103,061,267
E2	LHB	107.7	0.2	placed	19	54,211,137	54,211,337	1	109,648,920	109,649,650
E2	NUP62	112.3	4.7	frame	19	55,101,912	55,102,000	1	108,925,790	108,926,274
E2	C3	114.5	2.0	placed	13	41,161,518	41,165,062	22	11,975,757	11,982,617
E2	LOC163223	116.7	0.5	placed	19	53,481,652	53,481,742	1	110,214,165	110,214,494
E2	FCA998	123.8	1.5	placed						
E2	FCA996	133.2	4.7	frame	19	51,130,090	51,156,252	1	111,891,543	111,891,946
E2	BAX	--	--	binnead	19	54,149,997	54,156,705	1	109,690,626	109,692,130
E2	39079853	142.6	4.7	frame	19	49,624,875	49,625,237	1	113,121,397	113,121,889
E2	TGFB1	156.7	6.8	frame	19	46,528,798	46,550,789	1	114,817,034	114,831,760
E2	FCA308	161.2	2.8	placed	19	44,986,422	44,986,501	1	115,861,731	115,861,977
E2	FCA1000	161.2	6.8	frame	19	45,165,022	45,165,109	1	115,757,992	115,758,190
E2	FCA999	168.1	2.4	placed	19	42,032,532	42,034,636	1	117,882,381	117,882,805
E2	PSMD8	170.2	5.6	frame	19	43,557,160	43,557,294	1	116,814,104	116,814,380
E2	FLJ22059	192.0	1.4	placed	19	47,277,172	47,277,282	1	114,440,679	114,441,030
E2	LOC56269	198.7	5.6	frame	19	48,915,595	48,915,920	1	113,677,886	113,678,302
E2	PAPA4H1B3	--	--	binnead	19	47,493,063	47,493,358	1	114,253,655	114,254,846
E2	ETV2	223.9	4.0	placed	19	39,098,248	39,116,118	1	119,158,038	119,158,133
E2	FELDI	230.9	0.4	placed	19	39,890,464	39,890,587	1	119,978,883	119,981,398
E2	FCA1001	233.1	0.5	placed	19	39,377,218	39,410,365	1	120,434,250	120,434,560
E2	ATP4A	237.6	6.6	frame	19	40,726,406	40,726,571	1	119,307,128	119,308,838
E2	FCA531	254.2	0.6	frame	19	37,126,167	37,126,253	1	122,101,522	122,101,896
E2	FCA1002	--	--	binnead	19	37,307,616	37,307,783	1	121,933,292	121,933,549
E2	LG33_H07	261.3	4.1	placed	19	36,387,229	36,387,304	1	122,711,564	122,711,854
E2	UQCRRF51	279.4	10.6	frame	19	34,390,079	34,395,884	1	124,256,181	124,256,644
E2	PHKB	321.5	13.0	frame	16	46,291,239	46,291,389	2	67,913,961	67,914,412
E2	38988645	344.3	6.8	placed	16	49,968,371	49,968,621	2	64,686,676	64,686,937
E2	FCA665	358.8	13.0	frame	16	50,974,112	50,974,402	2	63,783,996	63,784,316
E2	FCA1003	380.9	5.8	frame	16	53,099,959	53,100,114	2	32,937,778	32,937,852
E2	CES1	390.1	4.7	frame	16	55,199,996	55,200,909	2	60,914,172	60,943,266
E2	FCA1004	394.7	1.3	placed	16	54,555,973	54,558,068	2	60,793,991	60,794,270
E2	LG_19_59	399.3	2.7	placed	16	54,466,935	54,467,647	2	60,871,027	60,872,205
E2	LG35_B06	406.1	2.2	frame	16	55,059,477	55,060,195	2	60,358,417	60,359,084
E2	CCL17	415.5	2.2	frame	16	56,005,293	56,007,475	2	59,634,050	59,635,694
E2	Fc.4288	429.8	7.2	frame	16	56,157,072	56,157,144	2	59,516,057	59,516,538
E2	39015843	450.2	1.0	frame	16	58,061,498	58,061,693	5	91,557,432	91,557,031
E2	FCA996	467.7	1.0	frame	16	60,536,880	60,537,297	5	89,613,931	89,614,339
E2	39015424	499.5	2.0	frame	16	61,177,076	61,177,193	5	89,113,646	89,113,523
E2	FCA1005	522.7	1.7	frame	16	62,885,374	62,885,916	5	87,731,922	87,732,670
E2	FCA1006	532.4	1.7	frame	16	63,797,204	63,797,553	5	86,980,845	86,981,329
E2	FCA1009	--	--	binnead	16	65,841,374	65,841,566	5	85,215,336	85,215,561
E2	FCA1010	--	--	binnead	16	65,109,188	65,109,283	5	85,842,290	85,842,613
E2	FCA1007	--	--	binnead	16	63,967,376	63,969,434	5	86,623,289	86,623,514
E2	FCA075	537.3	2.8	placed	16	64,139,170	64,139,293	5	86,689,903	86,690,123
E2	TRADD	542.1	2.7	frame	16	65,745,605	65,751,290	5	85,299,457	85,299,823
E2	39087346	544.5	1.9	placed	16	67,930,577	67,930,631	5	83,405,712	83,405,645
E2	TERF2	544.5	1.9	placed	16	67,947,035	67,977,360	5	83,367,116	83,394,089
E2	LG31-E11	549.3	2.7	frame	16	70,693,257	70,703,082	5	80,905,497	80,916,738
E2	FCA085	558.9	3.9	frame	16	71,313,052	71,315,151	5	81,460,405	81,460,587
E2	FCA032	570.8	4.6	frame	16	67,547,596	67,547,966	5	83,737,714	83,740,230
E2	FCA1011	580.3	0.9	placed	16	75,408,957	75,408,999	5	77,401,322	77,401,439
E2	39082012	587.4	1.4	frame	16	75,256,028	75,256,172	5	77,507,595	77,507,942
E2	LG9-13_B09	--	--	binnead	16	78,746,383	78,746,793	5	74,580,225	74,580,579
E2	LG31_C08	--	--	binnead	16	77,892,822	77,893,189	5	75,310,120	75,310,596
E2	39063564	594.5	1.4	frame	16	77,801,220	77,801,329	5	75,381,640	75,382,043
E2	FCA1012	601.5	3.9	frame	16	78,246,511	78,246,846	5	74,994,546	74,994,759
E2	FCA586	--	--	binnead	16	81,773,398	81,774,782	5	72,069,811	72,077,574
E2	39078497	627.9	1.5	placed	16	81,241,478	81,241,633	5	72,541,240	72,541,578
E2	FCA1013	654.6	3.1	frame	16	83,693,328	83,726,154	5	70,511,582	70,511,804
E2	MC1R	680.3	3.1	frame	16	88,513,174	88,514,106	5	66,758,726	66,759,652

E3 39017295 0.0 1.0 frame
 E3 FLJ12566 11.4 1.0 frame
 E3 LG22_A10 30.9 1.7 frame
 E3 FCA466 56.1 3.2 frame
 E3 MCM7 70.2 3.2 frame
 E3 GNB2 81.6 4.4 frame
 E3 EPO 83.8 0.1 placed
 E3 ACHE 90.4 4.4 frame
 E3 CUTL1 106.7 4.6 frame
 E3 PMS2L11 118.1 1.7 frame
 E3 FCA628 122.5 0.3 placed
 E3 MDH2 124.7 0.5 placed
 E3 ZP3 129.2 1.7 frame
 E3 NPD007 140.6 4.3 frame
 E3 BCL7B - - [NPD007 - ELN]
 E3 BAZ1B 152.2 3.2 placed
 E3 ELN 163.7 6.4 frame
 E3 FCA1014 165.9 0.3 placed
 E3 FCA004 193.7 0.3 placed
 E3 GTF2IRD1 215.7 6.7 frame
 E3 LG34_F05 240.1 4.7 frame
 E3 39079135 249.4 4.7 frame
 E3 GUSB 284.6 2.5 frame
 E3 39017238 296.9 2.5 frame
 E3 39039307 325.5 0.6 placed
 E3 SRCAP 332.3 9.0 frame
 E3 MVP 336.8 0.9 placed
 E3 FCA031 393.0 11.0 frame
 E3 Fc_28607 423.7 5.0 frame
 E3 ZP2 433.3 5.0 frame
 E3 LG27_F06 456.6 4.8 frame
 E3 39012428 471.7 2.6 frame
 E3 434 490.4 1.5 frame
 E3 LG25_F11 532.4 1.9 frame
 E3 39029429 540.0 1.9 frame
 E3 FRM1 552.8 3.3 frame
 E3 FCA1015 565.5 3.3 frame
 E3 PMS 587.2 4.8 frame
 E3 39087293 619.9 2.1 placed
 E3 FCA476 636.5 1.9 frame
 E3 39085248 649.6 1.9 frame
 E3 39088945 666.4 2.2 frame
 E3 NY-CO-7 674.3 1.4 frame
 E3 PKD1 684.6 1.2 frame
 E3 ZNF263 697.2 1.2 frame

7	2,760,438	2,760,748	6	17,048,998	17,049,718
7	4,584,108	4,584,246	6	15,614,403	15,614,866
7	6,554,456	6,556,537	6	14,151,686	14,153,767
7	99,335,212	99,335,409	6	12,222,284	12,222,749
7	99,915,812	99,921,442	6	11,754,795	11,759,950
7	99,964,938	99,965,117	6	11,716,842	11,718,158
7	100,135,424	100,136,395	6	11,595,251	11,599,284
7	101,052,675	101,520,684	6	10,580,343	10,836,992
7	75,777,404	75,777,556	6	10,369,108	10,370,288
7	75,617,438	75,617,786	6	10,249,927	10,250,515
7	75,322,020	75,341,455	6	10,118,936	10,134,889
7	75,707,460	75,707,612	6	10,315,869	10,324,405
7	75,156,038	75,156,185	6	9,951,433	9,951,910
7	72,336,075	72,337,725	6	9,410,345	9,431,215
7	72,299,399	72,381,266	6	9,439,042	9,507,793
7	72,887,098	72,928,658	6	9,029,760	9,060,358
7	72,713,154	72,713,204	6	8,907,831	8,908,114
13	76,223,030	76,229,028	22	32,366,574	32,379,911
7	73,461,331	73,461,561	6	8,619,973	8,695,582
16	28,446,148	28,447,138	6	19,801,006	19,801,464
7	69,589,254	69,589,407	6	5,580,255	5,579,968
7	64,869,825	64,891,346	6	3,464,984	3,478,038
7	55,853,571	55,853,778	6	3,227,140	3,227,001
16	31,051,247	31,051,606	6	18,978,976	18,978,205
16	30,622,888	30,663,100	6	18,626,278	18,652,561
16	29,738,388	29,738,576	6	19,446,037	19,446,444
16	24,647,914	24,742,629	6	22,985,398	22,985,569
16	20,843,122	20,843,208	6	26,026,026	26,026,417
16	21,120,206	21,120,383	6	25,813,155	25,825,374
16	20,539,889	20,540,205	6	26,392,104	26,392,686
16	19,752,128	19,752,326	6	27,050,186	27,049,857
16	9,271,254	9,271,829	6	34,636,521	34,637,043
16	9,221,646	9,221,888	6	34,675,184	34,675,489
16	11,282,207	11,282,249	6	33,098,863	33,099,136
16	13,237,621	13,237,905	6	31,173,061	31,173,324
16	18,418,858	18,419,006	6	29,327,124	29,327,522
16	6,382,693	6,383,026	6	36,943,676	36,944,200
16	5,752,115	5,766,744	6	37,439,956	37,450,223
16	4,752,566	4,752,711	6	38,267,315	38,267,157
16	2,067,861	2,067,989	6	40,467,041	40,467,169
16	672,593	672,746	6	41,518,584	41,518,851
16	2,079,486	2,079,735	6	40,445,889	40,473,395
16	3,273,488	3,281,455	6	39,551,589	39,558,462



F1	FCA1016	0.0	1.5	frame		1	223,488,798	223,924,529	7	40,685,377	40,685,503
F1	LG_19.62	19.4	1.5	frame		1	222,301,779	222,302,565	7	41,625,558	41,626,253
F1	39025242	65.8	1.8	frame		1	239,828,113	239,828,374	7	37,090,832	37,090,519
F1	39015461	72.9	1.4	placed		1	239,243,534	239,243,666	7	36,638,022	36,638,489
F1	lg9-9_f12	75.2	1.8	frame		1	239,451,370	239,451,768	7	36,782,940	36,783,305
F1	CD3Z	100.3	5.2	frame		1	164,132,487	164,132,602	7	33,587,622	33,587,770
F1	38973657	128.2	1.6	frame		1	166,395,224	166,395,392	7	31,537,944	31,537,603
F1	LG_18.3	140.4	3.2	placed		1	166,731,166	166,731,749	7	31,238,263	31,238,957
F1	FCA344	160.5	0.7	frame		1	168,186,353	168,294,306	7	30,683,947	30,684,555
F1	KIAA1096	177.5	0.7	frame		1	169,062,056	169,062,230	7	29,986,689	30,024,732
F1	Fc.97375	194.3	3.4	frame		1	168,852,122	168,859,948	7	29,238,822	29,239,079
F1	TNFSF6	211.5	3.2	frame		1	170,997,194	170,997,557	7	28,952,682	28,960,066
F1	FCA1017	226.2	3.2	frame		1	170,615,522	170,615,644	7	27,607,390	27,609,844
F1	SERPINC1	265.8	6.9	frame		1	171,341,954	171,342,243	7	27,940,500	27,940,726
F1	38986132	281.1	1.7	frame		1	172,348,355	172,348,483	7	27,322,730	27,322,322
F1	39010520	288.0	1.7	frame		1	172,687,714	172,687,885	7	26,430,854	26,431,071
F1	39016130	288.0	1.7	frame		1	173,684,591	173,685,140	7	26,123,905	26,124,438
F1	39005517	297.3	3.6	frame		1	175,777,151	175,777,344	7	25,252,881	25,252,143
F1	KIAA0475	307.0	3.5	frame		1	174,579,310	174,588,374	7	23,368,739	23,369,109
F1	FCA1016	327.9	3.5	frame		1	183,144,732	183,145,297	7	24,392,818	24,399,312
F1	PDC1	349.4	3.9	frame		1	182,770,503	182,770,885	7	22,113,759	22,117,645
F1	LG34_C04	362.4	4.9	frame		1	179,469,716	179,469,858	7	21,753,491	21,753,882
F1	39086365	--	--	binned	[LG34_C04 - Fc.112017]	1	179,588,340	179,588,606	7	18,777,343	18,776,962
F1	NM_030588	--	--	binned	[LG34_C04 - FCA1022]	1	181,740,330	181,740,452	7	18,848,582	18,903,484
F1	39039811	372.6	1.2	placed		1	179,724,210	179,846,384	7	20,841,969	20,841,574
F1	LAMC1	380.2	3.8	placed		1	179,600,688	179,601,028	7	19,017,018	19,138,376
F1	Fc.112017	385.0	5.2	frame		1	208,225,163	208,391,059	7	18,911,055	18,912,158
F1	FCA1022	403.6	1.9	frame		1	208,225,163	208,391,059	7	12,682,695	12,683,108
F1	FCA1023	403.6	1.9	frame		1	208,285,195	208,285,485	7	12,682,133	12,682,428
F1	FCA1022	--	--	binned	[FCA1022 - FCA1019]	1	211,223,773	211,226,122	7	15,221,298	15,223,519
F1	FCA1021	414.0	5.8	frame		1	210,590,828	210,590,926	7	14,641,848	14,642,204
F1	FCA1019	431.9	8.2	frame		1	210,919,660	211,026,649	7	14,977,642	14,977,957
F1	LG9-16_C06	452.8	9.0	frame		1	204,990,754	204,991,136	7	9,848,183	9,848,598
F1	LG7_D01	471.7	0.2	placed							
F1	FCA223	488.0	0.2	placed		1	206,648,452	206,648,685	7	11,316,598	11,316,818
F1	FCA1024	483.1	5.1	frame		1	205,905,777	205,905,841	7	10,616,634	10,616,884
F1	ASPM	--	--	binned	[FCA1024 - LG31_C10]	1	193,785,110	193,847,224	7	8,244,522	8,311,671
F1	FCA1025	501.1	2.2	placed		1	206,863,397	207,236,414	7	11,744,316	11,744,643
F1	IRF6	509.3	0.5	placed		1	206,351,514	206,351,630	7	11,052,486	11,052,911
F1	LG31_C10	512.0	5.1	frame		1	206,379,883	206,380,566	7	11,079,701	11,080,147
F1	FCA1027	--	--	binned	[LG31_C10 - FCA191]	1	180,315,091	180,315,140	7	4,333,736	4,334,075
F1	FCA1026	517.7	1.9	placed		1	204,460,896	204,460,946	7	9,345,367	9,345,752
F1	IL10	517.7	2.2	placed		1	203,332,647	203,332,801	7	8,583,777	8,587,518
F1	39010812	544.8	5.0	placed		1	196,637,377	196,648,115	7	5,775,571	5,781,326
F1	39062137	568.4	2.3	placed		1	203,146,889	203,147,032	38	5,839,700	5,839,849
F1	39029411	573.9	1.6	placed		1	201,470,197	201,470,361	38	4,303,458	4,303,089
F1	FCA191	579.5	7.7	frame		1	200,327,699	200,331,702	38	3,318,764	3,318,914
F1	39052089	585.0	1.2	placed		1	201,669,557	201,669,836	38	4,491,607	4,491,927
F1	FCA1028	601.9	3.1	frame							
F1	CYB5R1	615.0	3.1	frame		1	199,662,200	199,662,250	7	3,257,639	3,257,920
F1	TNNT2	636.1	1.1	placed		1	198,059,803	198,078,465	7	4,544,183	4,549,620
F1	39082183	665.3	1.0	placed		1	98,563,315	98,563,848	6	52,841,108	52,841,632
F1	39040612	694.6	4.2	placed		1	188,319,097	188,319,280	38	10,221,903	10,222,206
F1	FCA1034	710.2	2.0	frame		1	186,798,805	187,155,677	38	11,686,012	11,686,310
F1	38974162	731.1	1.2	placed		1	216,340,381	216,340,495	38	17,608,592	17,611,040
F1	TGFB2	751.1	2.8	frame		1	214,908,172	214,908,320	38	16,428,775	16,429,043
F1	38985407	765.8	2.8	frame		1	213,404,440	213,404,580	38	15,161,987	15,161,856
F1	FCA120	770.7	1.8	placed		1	213,523,799	213,524,820	38	15,278,600	15,280,642
F1	39038252	780.8	2.8	frame		1	212,433,671	212,433,858	38	14,278,660	14,278,344
F1	39089859	799.0	2.0	frame		1	217,501,307	217,501,446	38	18,589,599	18,590,035
F1	39029434	--	--	binned	[39038252 - LG21_E09]	1	163,267,069	163,267,219	38	25,562,823	25,562,409
F1	LG21_E09	810.5	2.0	frame		1	155,409,427	155,409,656	38	19,513,668	19,513,860
F1	FCGR3A	815.7	2.1	placed		1	158,327,557	158,327,673	38	21,562,178	21,563,220
F1	FCA1030	818.3	4.5	placed		1	157,856,532	157,857,252	38	21,302,988	21,308,377
F1	FCA1033	829.1	1.7	placed		1	159,848,790	159,869,817	38	22,926,866	22,927,121
F1	FCA1032	837.3	0.8	placed		1	161,904,785	162,056,454	38	24,527,207	24,527,398
F1	31_091new	840.0	1.3	placed		1	161,843,498	161,843,527	38	24,446,576	24,446,902
F1	CCT3	856.8	3.7	frame		1	153,091,837	153,092,169	7	44,189,740	44,190,079
F1	PKLR	859.4	1.5	placed		1	152,077,142	152,077,262	7	44,880,010	44,880,199
F1	GBA	864.8	3.7	frame		1	152,022,748	152,022,891	7	44,929,782	44,929,928
F1	RPS27	873.1	3.8	frame		1	150,776,311	150,777,696	7	45,782,827	45,784,006
F1	FCA1031	--	--	binned	[RPS27 - FCA1029]	1	161,596,376	161,596,418	38	24,262,150	24,262,509
F1	LG31_A08	890.6	2.1	frame		1	159,604,078	159,604,392	38	22,712,529	22,712,856
F1	39079428	896.1	0.8	placed		1	87,788,783	87,788,862	6	62,237,867	62,237,963
F1	FCA1029	904.4	2.1	frame		1	161,826,854	161,843,458	38	24,427,422	24,448,306
F1	LG21_G10	921.8	5.1	frame		1	161,515,246	161,516,070	38	24,170,568	24,171,094

F2	FCA136	0.0	8.9	placed	8	55,270,525	55,271,167	29	8,761,100	8,762,469
F2	KIAA0203	63.3	9.0	frame	8	53,697,652	53,697,892	29	7,459,129	7,459,366
F2	MOS	93.1	4.7	frame	8	57,188,055	57,189,095	29	10,523,113	10,524,163
F2	LG23_B11	97.5	1.6	placed	8	57,389,829	57,389,890	29	10,682,432	10,682,927
F2	PENK	108.8	4.7	frame	8	57,516,437	57,516,656	29	10,789,802	10,770,360
F2	LG_20.79	120.4	6.0	frame	8	59,293,704	59,294,137	29	12,078,597	12,079,020
F2	FCA1036	140.4	5.0	frame	8	59,883,227	60,194,074	29	12,579,954	12,580,217
F2	LG_19.47	155.0	5.0	frame	8	61,467,215	61,468,036	29	13,870,763	13,871,408
F2	FCA502	--	--	blinded	8	65,448,787	65,645,150	29	17,373,133	17,375,256
F2	FCA220	172.6	5.6	placed	8	65,668,143	65,670,193	29	17,448,831	17,448,956
F2	LG_18.74	177.4	5.1	placed	8	66,852,158	66,853,142	29	18,457,413	18,459,468
F2	LG9_9_G07	199.9	3.5	placed	8	69,263,772	69,263,838	29	20,701,351	20,701,889
F2	39160890	206.9	1.0	placed	8	68,595,217	68,595,313	29	20,012,933	20,012,579
F2	CRH	218.8	10.3	frame	8	67,251,173	67,253,378	29	18,837,182	18,839,111
F2	lg2_h08m	240.9	2.4	frame	8	74,551,481	74,553,399	29	25,048,055	25,050,176
F2	FCA294	247.8	2.3	placed	8	73,873,943	73,876,093	29	24,483,584	24,484,005
F2	FCA672	252.4	2.4	frame	8	73,756,993	73,759,193	29	24,369,152	24,369,415
F2	FCA1038	264.1	4.6	frame	8	80,685,891	80,739,818	29	29,697,893	29,697,961
F2	FCA602	275.6	4.4	frame	8	80,993,667	81,105,041	29	30,339,968	30,341,754
F2	FCA1037	282.4	4.4	frame	8	81,430,651	81,430,823	29	30,686,832	30,687,185
F2	LG9-10_F02	301.7	8.9	frame	8	85,241,300	85,241,659	29	33,794,926	33,795,301
F2	39038530	308.6	0.2	placed	8	85,875,326	85,875,590	29	34,398,659	34,398,944
F2	FCA350	341.0	0.6	placed	8	89,122,805	89,278,652	29	36,518,611	36,519,809
F2	FCA170	383.3	4.7	frame	8	95,807,743	95,961,638	29	42,525,102	42,526,403
F2	FCA1039	399.9	4.7	frame	8	97,096,443	97,098,493	29	43,588,592	43,570,140
F2	FCA1041	--	--	blinded	8	103,738,791	103,767,361	13	7,247,523	7,247,702
F2	FCA1042	427.7	3.6	frame	8	104,778,488	105,333,268	13	7,997,092	7,997,205
F2	FCA1040	437.1	0.6	placed	8	106,400,346	106,884,942	13	9,538,202	9,538,382
F2	38911732	459.9	3.5	frame	8	100,790,524	100,790,963	13	4,681,273	4,681,678
F2	39011581	480.3	3.5	frame	8	102,518,442	102,518,882	13	6,153,195	6,153,640
F2	LG_20.65	512.3	4.8	frame	8	107,712,416	107,713,099	13	10,481,606	10,482,131
F2	LG8_D01	526.9	4.8	frame	8	107,580,085	107,580,752	13	10,349,459	10,349,828
F2	FCA506	536.4	6.2	frame	8	107,913,893	107,915,993	13	10,660,547	10,662,603
F2	DC6	551.3	0.2	frame	8	110,415,746	110,427,355	13	12,950,017	13,255,126
F2	FCA094	581.1	2.7	frame	8	118,881,132	119,703,433	13	20,420,692	20,423,228
F2	LG2_E09	588.4	2.7	frame	8	118,680,629	118,681,324	13	20,044,427	20,044,886
F2	FCA1043	590.8	2.8	placed	8	122,376,393	122,378,493	13	23,121,059	23,121,258
F2	FCA1044	593.2	2.7	placed	8	122,032,702	122,328,145	13	23,039,172	23,039,538
F2	FCA1046	603.0	2.6	frame	8	124,728,144	124,728,407	13	24,996,392	24,996,522
F2	FCA1045	612.7	0.4	placed	8	125,204,047	125,204,153	13	25,343,949	25,344,290
F2	FCA748	635.2	2.6	frame	8	119,246,116	119,247,203	13	20,541,563	20,541,852
F2	39160939	644.9	0.3	placed	8	116,623,150	116,623,447	13	18,192,408	18,192,998
F2	MYC	657.4	4.9	frame	8	128,821,803	128,822,387	13	28,257,045	28,259,334
F2	FCA1048	--	--	blinded	8	141,044,593	141,065,265	13	37,872,697	37,882,501
F2	FCA111	662.0	2.0	placed	8	129,234,834	129,234,963	13	28,863,932	28,864,025
F2	LG4_D10	677.7	2.5	placed	8	133,155,875	133,156,628	13	31,783,621	31,784,139
F2	39010484	680.2	2.2	frame	8	132,372,388	132,372,570	13	31,193,074	31,193,568
F2	TG	680.2	2.2	frame	8	133,948,427	134,216,340	13	32,408,609	32,408,919
F2	FCA749	680.2	2.2	frame	8	133,978,893	133,979,656	13	32,435,368	32,437,756
F2	FCA1047	682.5	0.6	placed	8	134,955,419	134,937,462	13	33,224,708	33,225,055
F2	LG1_F03	689.6	1.8	placed	8	138,278,416	138,278,535	13	35,827,190	35,827,356
F2	FCA750	696.7	2.2	frame	8	139,395,368	139,395,613	13	36,606,589	36,607,181
F2	LG25_B06	706.0	3.5	frame	8	138,341,913	138,343,620	13	35,878,152	35,880,218
F2	LG25_F03	717.8	3.5	frame	8	131,239,997	131,239,393	13	30,247,603	30,248,043

X	LG23_F02	0.0	0.8	placed	
X	39062284	12.0	5.9	frame	
X	TBL1X	45.3	1.7	placed	
X	NLGN4X	47.5	5.9	frame	
X	APXL	72.1	5.9	frame	
X	FCA478	0.0	1.5	frame	
X	39065680	--	--	binmed	[FCA478 - MID1]
X	39085264	12.7	1.5	frame	
X	KIAA1280	15.9	1.2	placed	
X	LG9-15_A03	19.2	1.3	placed	
X	826277900	22.3	1.5	placed	
X	AMELX	25.5	0.5	placed	
X	FCA240	25.5	0.5	placed	
X	MID1	32.0	1.7	frame	
X	PIGA	51.8	8.1	frame	
X	RPS8KA3	67.1	0.1	placed	
X	PDHA1	69.9	4.6	frame	
X	PHKA2	78.6	4.6	frame	
X	CNK2	93.2	4.6	frame	
X	ZFX	104.5	4.6	frame	
X	EIF2S3	116.1	6.8	frame	
X	LG34_E08	128.2	4.9	frame	
X	FCA1050	140.6	3.8	frame	
X	MAGEB2	--	--	binmed	[EIF2S3 - MAGEB3]
X	MAGEB3	149.9	3.8	frame	
X	DMD	176.7	4.8	frame	
X	LG9-13_H02	195.1	2.5	frame	
X	SRPX	210.1	2.5	frame	
X	DZKX	--	--	binmed	[SRPX - LG31_H02]
X	OTC	219.0	2.5	frame	
X	USP9X	224.7	1.1	placed	
X	39047717	232.9	1.0	placed	
X	LG31_H02	250.1	2.5	frame	
X	MAOA	--	--	binmed	[LG31_H02 - PCTK1]
X	LG33_D09	264.5	3.3	frame	
X	PCTK1	282.6	3.5	frame	
X	UBE1X	291.3	2.7	frame	
X	UTX	302.8	2.7	frame	
X	ARAF1	323.2	3.9	frame	
X	BMP15	359.5	0.7	frame	
X	NUDT11	--	--	binmed	[ARAF1 - MAGEH1]
X	SMCX	394.6	1.3	placed	
X	MAGEH1	407.3	0.7	frame	
X	ALA52	412.2	0.2	placed	
X	FCA651	450.5	2.4	placed	
X	ASB12	487.0	9.6	frame	
X	MSN	525.7	9.3	frame	
X	PUA1	568.1	9.3	frame	
X	IL2RG	606.6	4.7	frame	
X	TAF1	619.6	4.4	frame	
X	LG_19.84	632.9	4.4	frame	
X	RPS4X	649.2	6.4	frame	
X	XIST	660.2	4.5	frame	
X	ATP7A	671.5	4.5	frame	
X	POU3F4	683.4	0.5	placed	
X	FCA018	689.1	5.5	frame	
X	CHM	720.0	5.2	frame	
X	PABPC5	726.7	3.6	placed	
X	DIAPH2	747.6	5.2	frame	
X	KIAA0443	--	--	binmed	[DIAPH2 - PLP]
X	BTX	768.5	4.1	frame	
X	PLP	778.5	4.1	frame	
X	CLDN2	791.6	2.3	frame	
X	AMOT	803.9	2.3	frame	
X	SLOC6A14	--	--	binmed	[AMOT - CUL4BX]
X	HTR2C	815.8	2.4	placed	
X	AGTR2	824.6	2.4	frame	
X	PGHM1	836.7	2.1	placed	
X	CUL4BX	845.6	4.9	frame	
X	FCA674	858.0	2.4	frame	
X	AUTL2	864.3	0.2	placed	
X	FCA145	867.4	2.4	frame	
X	LG33_G04_M	880.5	4.4	frame	
X	39005496	--	--	binmed	[FCA145 - F9]
X	TNFSF5	886.6	2.3	placed	
X	FCA1051	905.4	1.2	placed	
X	F9	928.5	4.4	frame	
X	IDS	--	--	binmed	[F9 - MPP1]
X	LDOC1	931.8	0.3	placed	
X	SLITRK4	935.0	0.3	placed	
X	AFF2	978.5	6.2	frame	
X	BGN	--	--	binmed	[AFF2 - TKTL1]
X	FCA311	--	--	binmed	[AFF2 - TKTL1]
X	MPP1	992.7	3.5	frame	
X	OPN1LW	996.1	3.8	placed	
X	SPRY3	1002.7	2.4	placed	
X	TKTL1	1009.0	3.5	frame	

X	4,365,856	4,365,968	X	2,379,416	2,379,565
X	9,242,774	9,497,513	X	6,226,629	6,327,951
X	5,667,820	6,006,442	X	3,380,218	3,597,752
X	9,564,231	9,727,217	X	6,393,695	6,538,222
X	11,470,972	11,471,199	X	8,122,252	8,122,348
X	13,792,036	13,792,133	X	10,336,869	10,336,413
X	9,816,823	9,816,950	X	6,632,071	6,632,248
X	9,846,225	9,919,384	X	6,611,716	6,731,637
X	10,624,110	10,624,520	X	7,346,519	7,348,829
X	9,756,863	9,758,867	X	6,569,556	6,570,201
X	11,074,581	11,074,771	X	7,723,111	7,723,474
X	12,900,750	12,909,896	X	9,518,511	9,530,355
X	10,224,110	10,345,213	X	6,984,810	7,139,436
X	15,097,242	15,109,771	X	11,472,261	11,482,744
X	19,933,172	20,044,366	X	15,955,175	16,067,329
X	19,121,755	19,137,619	X	15,238,061	15,251,831
X	18,721,537	18,721,624	X	14,852,828	14,853,129
X	21,152,216	21,420,599	X	17,087,310	17,353,919
X	23,927,419	23,992,178	X	19,663,167	19,696,186
X	23,832,721	23,855,743	X	19,565,248	19,583,673
X	24,418,678	24,419,220	X	20,076,019	20,076,236
X	30,014,254	30,014,570	X	21,477,112	21,478,288
X	27,632,353	27,632,845	X	22,844,320	22,846,880
X	30,897,002	33,117,383	X	27,653,056	27,653,186
X	37,073,050	37,077,433	X	31,964,808	31,966,967
X	37,764,808	37,836,348	X	32,724,056	32,783,797
X	40,965,423	40,965,710	X	35,588,033	35,588,482
X	37,965,202	38,036,912	X	32,959,717	33,015,796
X	40,847,891	40,848,138	X	35,475,571	35,485,717
X	40,815,752	40,815,826	X	35,452,002	35,452,170
X	41,859,539	41,859,850	X	36,380,445	36,380,793
X	43,340,864	43,340,511	X	37,544,091	37,544,162
X	43,049,944	43,050,275	X	37,324,254	37,324,835
X	46,844,381	46,844,635	X	40,631,780	40,634,651
X	46,825,691	46,825,785	X	40,614,333	40,614,690
X	44,674,845	44,675,359	X	38,719,309	38,719,813
X	47,186,594	47,186,679	X	41,003,258	41,003,562
X	50,486,819	50,492,643	X	43,583,411	43,588,339
X	51,065,899	51,072,463	X	43,739,112	43,744,744
X	53,129,828	53,129,946	X	44,801,338	44,801,734
X	55,381,558	55,383,019	X	46,841,299	46,841,984
X	54,930,573	54,930,701			
X	63,227,096	63,228,524	X	49,301,459	49,303,016
X	64,670,531	64,744,813	X	53,496,415	53,562,874
X	68,163,718	68,166,409	X	56,395,552	56,398,136
X	70,109,785	70,114,481	X	58,270,255	58,274,098
X	70,530,872	70,533,274	X	58,482,254	58,552,353
X	71,031,948	71,032,520	X	58,935,238	58,935,813
X	71,274,916	71,280,160	X	59,149,484	59,149,876
X	72,828,931	72,829,029	X	60,311,640	60,311,787
X	76,972,255	77,112,037	X	63,258,839	63,258,968
X	82,569,445	82,570,920	X	67,452,962	67,454,137
X	84,925,656	85,108,711	X	69,658,477	69,901,940
X	90,496,766	90,499,727	X	71,512,643	71,516,223
X	95,745,855	96,866,137	X	73,015,701	73,936,178
X	101,712,586	101,719,523	X	79,352,922	79,357,403
X	100,432,607	100,432,705	X	78,328,067	78,328,255
X	102,846,769	102,846,853	X	80,237,694	80,238,070
X	105,949,538	105,978,948	X	83,519,502	83,529,215
X	111,823,875	111,890,186	X	88,797,856	88,863,058
X	115,379,671	115,404,505	X	92,008,179	92,034,783
X	113,964,002	113,964,166	X	90,402,538	90,704,070
X	115,113,915	115,116,719	X	91,770,814	91,774,223
X	118,152,155	118,160,310	X	94,400,732	94,409,379
X	119,440,355	119,476,053	X	95,564,107	95,598,791
X	107,141,183	107,203,115	X	84,678,489	84,733,759
X	107,742,948	107,742,991	X	85,281,949	85,282,043
X	131,617,203	131,617,409	X	106,716,449	106,716,695
X	132,831,535	132,831,735	X	107,801,012	107,801,204
X	135,466,735	135,467,095	X	110,061,551	110,072,603
X	136,367,322	136,369,053	X	110,865,657	110,867,833
X	138,338,415	138,371,137	X	112,577,381	112,577,515
X	146,312,324	146,312,413	X	120,590,968	120,591,433
X	139,955,449	139,996,804	X	114,110,946	114,110,837
X	142,441,463	142,443,537	X	115,844,975	115,851,777
X	147,288,163	147,778,422	X	119,926,938	120,242,554
X	152,292,279	152,292,386	X	124,387,865	124,388,072
X	153,472,108	153,510,080	X	125,674,147	125,674,502
X	153,570,680	153,570,751	X	125,923,973	125,924,061
X	153,011,260	153,011,521	X	125,035,040	125,041,044
X	154,561,177	154,570,406	X	126,680,993	126,696,146
X	153,058,542	153,078,869	X	125,091,061	125,091,327