

cluster	chr	cluster start	cluster stop	cluster size	#cnv in cluster	gene	clustered cnv in gene	description
1	1	22,398,760	22,512,713	113,953	10			
2	1	25,289,336	25,343,403	54,067	9			
3	1	39,709,177	39,800,367	91,190	9	BMP8A	4	bone morphogenetic protein 8a
3	1	39,709,177	39,800,367	91,190	9	MACF1	4	microtubule-actin crosslinking factor 1
4	1	62,141,345	62,219,511	78,166	14	INADL	14	InaD-like (Drosophila)
5	1	65,037,729	65,162,358	124,629	22	JAK1	8	Janus kinase 1 (a protein tyrosine kinase)
5	1	65,037,729	65,162,358	124,629	22	RAVER2	4	ribonucleoprotein, PTB-binding 2
6	1	89,190,622	89,284,890	94,268	10	GBP3	4	guanylate binding protein 3
6	1	89,190,622	89,284,890	94,268	10	KAT3	4	kynurenine aminotransferase III
7	1	90,527,937	90,621,665	93,728	9			
8	1	113,258,086	113,345,893	87,807	10	SLC16A1	6	solute carrier family 16, member 1 (monocarboxylic acid transporter 1)
9	1	113,854,842	113,949,669	94,827	10	MAGI3	10	membrane associated guanylate kinase, WW and PDZ domain containing 3
10	1	118,179,163	118,272,332	93,169	11	GDAP2	6	ganglioside induced differentiation associated protein 2
11	1	150,808,827	150,864,608	55,781	13	LCE3C	5	late cornified envelope 3C
11	1	150,808,827	150,864,608	55,781	13	LCE3D	5	late cornified envelope 3D
11	1	150,808,827	150,864,608	55,781	13	LCE3A	3	late cornified envelope 3A
11	1	150,808,827	150,864,608	55,781	13	LCE3B	3	late cornified envelope 3B
12	1	154,781,734	154,885,466	103,732	9	IQGAP3	4	IQ motif containing GTPase activating protein 3
12	1	154,781,734	154,885,466	103,732	9	HAPLN2	3	hyaluronan and proteoglycan link protein 2
13	1	156,694,163	156,793,196	99,033	11	OR6Y1	6	olfactory receptor, family 6, subfamily Y, member 1
14	1	161,133,127	161,186,023	52,896	9			
15	1	177,395,299	177,479,395	84,096	9	ABL2	7	v-abl Abelson murine leukemia viral oncogene homolog 2 (arg, Abelson-related gene)
16	1	191,405,979	191,480,085	74,106	14	CDC73	14	cell division cycle 73, Paf1/RNA polymerase II complex component, homolog (S. cerevisiae)
16	1	191,405,979	191,480,085	74,106	14	B3GALT2	7	UDP-Gal:betaGlcNAc beta 1,3-galactosyltransferase, polypeptide 2
17	1	200,523,777	200,575,327	51,550	10	LGR6	8	leucine-rich repeat-containing G protein-coupled receptor 6
17	1	200,523,777	200,575,327	51,550	10	UBE2T	3	ubiquitin-conjugating enzyme E2T (putative)
18	1	211,769,716	211,840,529	70,813	9			
19	1	217,503,879	217,590,162	86,283	11			
20	1	225,034,057	225,159,365	125,308	10	PSEN2	5	presenilin 2 (Alzheimer disease 4)
21	1	244,038,573	244,182,584	144,011	13	SMYD3	13	SET and MYND domain containing 3
22	2	10,098,170	10,233,041	134,871	9	FLJ25102	4	hypothetical protein FLJ25102
23	2	17,977,502	18,087,291	109,789	13			
24	2	25,415,683	25,522,450	106,767	9	DTNB	7	dystrobrein, beta
25	2	34,564,317	34,608,463	44,146	12			
26	2	35,426,486	35,538,200	111,714	12			
27	2	37,836,767	37,973,006	136,239	11			
28	2	54,906,806	54,995,856	89,050	10			
29	2	67,181,284	67,264,115	82,831	10			
30	2	71,192,304	71,226,817	34,513	10	MPHOSPH10	9	M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein)
30	2	71,192,304	71,226,817	34,513	10	MCEE	4	methylmalonyl CoA epimerase
31	2	75,201,890	75,240,237	38,347	9	TACR1	9	tachykinin receptor 1
32	2	83,342,903	83,407,138	64,235	10			
33	2	83,779,296	83,866,270	86,974	9			
34	2	97,634,808	97,720,251	85,443	9	ZAP70	4	zeta-chain (TCR) associated protein kinase 70kDa
34	2	97,634,808	97,720,251	85,443	9	ACTR1B	3	ARP1 actin-related protein 1 homolog B, centractin beta (yeast)
35	2	113,314,394	113,437,799	123,405	9			
36	2	126,087,887	126,255,510	167,623	17			
37	2	132,983,679	133,039,177	55,498	9	GPR39	9	G protein-coupled receptor 39
38	2	146,594,853	146,686,713	91,860	12			
39	2	151,272,537	151,347,436	74,899	9			
40	2	152,865,952	152,921,371	55,419	9	FMNL2	3	formin-like 2
41	2	189,256,604	189,292,583	35,979	9			
42	2	191,890,367	192,046,482	156,115	9	MYO1B	7	myosin IB
43	2	194,499,883	194,662,308	162,425	14			
44	2	197,194,742	197,342,763	148,021	12	FLJ39660	9	hypothetical protein FLJ39660
45	2	203,004,008	203,051,032	47,024	11	BMPR2	11	bone morphogenetic protein receptor, type II (serine/threonine kinase)
46	2	205,011,363	205,054,797	43,434	10			
47	2	205,563,661	205,768,225	204,564	14	PARD3B	14	par-3 partitioning defective 3 homolog B
48	2	206,844,783	206,922,419	77,636	9	KIAA1571	5	KIAA1571 protein
49	2	208,048,050	208,088,022	39,972	9			
50	2	226,596,290	226,711,950	115,660	11			
51	2	237,428,008	237,478,236	50,228	9			
52	2	242,564,127	242,629,390	65,263	10			
53	3	5,928,426	6,012,091	83,665	9			
54	3	10,211,634	10,293,101	81,467	10	IRAK2	8	interleukin-1 receptor-associated kinase 2
54	3	10,211,634	10,293,101	81,467	10	TATDN2	5	TatD DNase domain containing 2
55	3	12,584,551	12,667,041	82,490	15	RAF1	14	v-raf-1 murine leukemia viral oncogene homolog 1
55	3	12,584,551	12,667,041	82,490	15	MKRN2	5	makorin, ring finger protein, 2
56	3	25,536,801	25,610,168	73,367	10	RARB	10	retinoic acid receptor, beta
56	3	25,536,801	25,610,168	73,367	10	TOP2B	3	topoisomerase (DNA) II beta 180kDa
57	3	41,214,098	41,254,695	40,597	19	CTNBN1	19	catenin (cadherin-associated protein), beta 1, 88kDa
58	3	45,769,696	45,887,234	117,538	9	SLC6A20	3	solute carrier family 6 (proline IMINO transporter), member 20
59	3	53,006,861	53,069,329	62,468	14	SFMBT1	13	Scm-like with four mbt domains 1
60	3	67,588,118	67,660,416	72,298	10	SUCLG2	10	succinate-CoA ligase, GDP-forming, beta subunit
61	3	89,420,895	89,509,195	88,300	12	EPHA3	12	EPH receptor A3
62	3	105,493,652	105,633,078	139,426	14			
63	3	109,186,288	109,265,686	79,398	11	CD47	4	CD47 molecule
64	3	132,803,354	132,877,309	73,955	9	CPNE4	9	copine IV
65	3	176,511,295	176,574,679	63,384	11	NAALADL2	11	N-acetylated alpha-linked acidic dipeptidase-like 2
66	3	178,177,748	178,229,845	52,097	11			
67	3	187,244,390	187,304,660	60,270	21	ETV5	21	ets variant gene 5 (ets-related molecule)
68	4	17,108,592	17,207,643	99,051	11	QDPR	3	quinoid dihydropteridine reductase
69	4	17,784,038	17,880,244	96,206	9			
70	4	23,063,614	23,158,504	94,890	10			
71	4	28,525,236	28,624,907	99,671	9			
72	4	43,481,804	43,610,871	129,067	12			

73	4	54,797,869	54,857,515	59,646	11	PDGFRA	11	platelet-derived growth factor receptor, alpha polypeptide
74	4	55,223,109	55,298,254	75,145	21	KIT	21	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
75	4	63,298,520	63,377,587	79,067	12			
76	4	64,380,052	64,390,841	10,789	14			
77	4	74,509,821	74,610,294	100,473	12	AFM	5	afamin
77	4	74,509,821	74,610,294	100,473	12	AFP	4	alpha-fetoprotein
78	4	75,239,929	75,360,322	120,393	9	MTHFD2L	9	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2-like
79	4	88,878,430	88,983,707	105,277	18	IBSP	4	integrin-binding sialoprotein (bone sialoprotein, bone sialoprotein II)
79	4	88,878,430	88,983,707	105,277	18	MEPE	3	matrix, extracellular phosphoglycoprotein with ASARM motif (bone)
80	4	108,287,735	108,351,836	64,101	9			
81	4	108,409,908	108,475,419	65,511	10			
82	4	115,331,847	115,433,402	101,555	13			
83	4	116,380,547	116,441,355	60,808	10			
84	4	140,199,359	140,273,278	73,919	16	ELF2	16	E74-like factor 2 (ets domain transcription factor)
85	4	152,027,500	152,159,796	132,296	11	LRBA	11	LPS-responsive vesicle trafficking, beach and anchor containing
86	4	154,842,482	154,940,775	98,293	9	RNF175	7	ring finger protein 175
87	4	157,027,780	157,104,373	76,593	10	CTSO	7	cathepsin O
87	4	157,027,780	157,104,373	76,593	10	TDO2	3	tryptophan 2,3-dioxygenase
88	4	161,161,181	161,289,626	128,445	11			
89	4	179,097,623	179,127,412	29,789	9			
90	4	188,098,031	188,142,047	44,016	9			
91	4	189,409,493	189,471,407	61,914	10			
92	4	189,951,258	190,037,170	85,912	12			
93	5	8,794,776	8,880,625	85,849	10			
94	5	19,015,612	19,121,529	105,917	10			
95	5	24,517,374	24,589,190	71,816	9	CDH10	9	cadherin 10, type 2 (T2-cadherin)
96	5	33,557,837	33,587,354	29,517	9	ADAMTS12	9	ADAM metalloproteinase with thrombospondin type 1 motif, 12
97	5	45,711,110	45,820,789	109,679	10	HCN1	3	hyperpolarization activated cyclic nucleotide-gated potassium channel 1
98	5	101,093,410	101,150,058	56,648	9			
99	5	101,208,001	101,234,776	26,775	9			
100	5	105,814,087	105,913,768	99,681	10			
101	5	112,169,610	112,205,555	35,945	9	APC	9	adenomatosis polyposis coli
102	5	114,701,746	114,759,557	57,811	9	CTNNA1	4	catenin (cadherin-associated protein), alpha pseudogene 1
103	5	155,362,342	155,449,494	87,152	9			
104	5	179,593,618	179,664,674	71,056	9	MAPK9	7	mitogen-activated protein kinase 9
105	6	272,519	343,177	70,658	12	DUSP22	8	dual specificity phosphatase 22
106	6	11,403,401	11,465,302	61,901	9			
107	6	14,739,288	14,847,594	108,306	12			
108	6	22,085,386	22,146,846	61,460	10			
109	6	27,776,995	27,874,093	97,098	11			
110	6	37,377,553	37,462,660	85,107	9	RNF8	5	ring finger protein 8
110	6	37,377,553	37,462,660	85,107	9	TBC1D22B	4	TBC1 domain family, member 22B
111	6	51,280,194	51,380,710	100,516	11			
112	6	52,732,545	52,830,487	97,942	11	GSTA2	4	glutathione S-transferase A2
112	6	52,732,545	52,830,487	97,942	11	GSTA5	3	glutathione S-transferase A5
113	6	72,837,167	72,865,665	28,498	9	RIMS1	9	regulating synaptic membrane exocytosis 1
114	6	74,681,738	74,793,445	111,707	9			
115	6	79,057,989	79,082,851	24,862	11			
116	6	84,792,441	84,867,900	75,459	10	C6orf117	9	chromosome 6 open reading frame 117
117	6	124,233,783	124,312,262	78,479	10	NKAIN2	10	
118	6	135,401,714	135,501,429	99,715	10	HBS1L	4	HBS1-like (S. cerevisiae)
119	6	135,527,819	135,578,353	50,534	11	MYB	10	v-myb myeloblastosis viral oncogene homolog (avian)
120	6	148,292,165	148,370,451	78,286	12			
121	6	152,247,361	152,317,804	70,443	11	ESR1	11	estrogen receptor 1
122	7	3,326,142	3,418,230	92,088	9	SDK1	9	sidekick homolog 1 (chicken)
123	7	9,917,844	10,002,306	84,462	9			
124	7	13,085,532	13,130,874	45,342	10			
125	7	13,950,772	13,979,752	28,980	11	ETV1	11	ets variant gene 1
126	7	18,975,523	19,075,259	99,736	13	HDAC9	6	histone deacetylase 9
127	7	19,140,707	19,211,977	71,270	9			
128	7	28,969,528	29,146,202	176,674	16	CPVL	13	carboxypeptidase, vitellogenic-like
129	7	46,898,996	46,996,032	97,036	10			
130	7	55,094,409	55,186,676	92,267	17	EGFR	17	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)
131	7	57,460,390	57,521,568	61,178	11	ZNF716	4	zinc finger protein 716
132	7	63,271,509	63,323,784	52,275	9			
133	7	79,074,393	79,141,511	67,118	9			
134	7	87,022,520	87,103,244	80,724	11	ABCB1	11	ATP-binding cassette, sub-family B (MDR/TAP), member 1
134	7	87,022,520	87,103,244	80,724	11	RPIB9	3	Rap2-binding protein 9
135	7	92,117,539	92,299,353	181,814	18	CDK6	18	cyclin-dependent kinase 6
136	7	92,328,116	92,348,286	20,170	12			
137	7	101,440,780	101,552,899	112,119	10	CUTL1	10	cut-like 1, CCAAT displacement protein (Drosophila)
138	7	114,474,582	114,548,901	74,319	9			
139	7	115,659,732	115,784,213	124,481	13	TES	5	testis derived transcript (3 LIM domains)
140	7	116,136,240	116,221,845	85,605	13	MET	13	met proto-oncogene (hepatocyte growth factor receptor)
141	7	127,521,427	127,632,648	111,221	13	SND1	3	staphylococcal nuclease domain containing 1
142	7	127,666,668	127,715,932	49,264	9	LEP	3	leptin (obesity homolog, mouse)
143	7	140,147,483	140,268,920	121,437	16	BRAF	16	v-raf murine sarcoma viral oncogene homolog B1
144	7	140,469,629	140,558,092	88,463	9			
145	7	141,903,092	142,007,637	104,545	15	TRB@	15	T cell receptor beta locus
145	7	141,903,092	142,007,637	104,545	15	TRBV10-3	4	T cell receptor beta variable 10-3
145	7	141,903,092	142,007,637	104,545	15	TRBV11-3	4	T cell receptor beta variable 11-3
145	7	141,903,092	142,007,637	104,545	15	TRBV15	4	T cell receptor beta variable 15
145	7	141,903,092	142,007,637	104,545	15	TRBV12-5	3	T cell receptor beta variable 12-5
145	7	141,903,092	142,007,637	104,545	15	TRBV13	3	T cell receptor beta variable 13
145	7	141,903,092	142,007,637	104,545	15	TRBV14	3	T cell receptor beta variable 14
145	7	141,903,092	142,007,637	104,545	15	TRBV16	3	T cell receptor beta variable 16
145	7	141,903,092	142,007,637	104,545	15	TRBV5-8	3	T cell receptor beta variable 5-8
146	7	142,883,633	142,963,469	79,836	11			

147	7	143,216,390	143,361,591	145,201	17	OR6B1	4	olfactory receptor, family 6, subfamily B, member 1
148	7	144,901,737	144,981,307	79,570	9			
149	7	145,494,792	145,608,040	113,248	10	CNTNAP2	10	contactin associated protein-like 2
150	7	152,772,617	152,858,146	85,529	9			
151	7	153,736,584	153,789,952	53,368	9			
152	8	2,667,236	2,762,504	95,268	9			
153	8	4,125,364	4,181,926	56,562	11	CSMD1	11	CUB and Sushi multiple domains 1
154	8	6,023,064	6,158,627	135,563	24			
155	8	8,363,718	8,446,979	83,261	9			
156	8	24,520,028	24,566,066	46,038	10			
157	8	25,025,458	25,068,170	42,712	13			
158	8	32,710,696	32,838,994	128,298	12	NRG1	3	neuregulin 1
159	8	38,354,638	38,440,583	85,945	12	FGFR1	10	fibroblast growth factor receptor 1 (fms-related tyrosine kinase 2, Pfeiffer syndrome)
160	8	42,226,250	42,325,129	98,879	15	IKBKB	12	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
160	8	42,226,250	42,325,129	98,879	15	POLB	4	polymerase (DNA directed), beta
161	8	60,867,420	60,981,931	114,511	10			
162	8	63,363,511	63,486,037	122,526	10	NKAIN3	10	
163	8	64,949,241	65,035,972	86,731	9			
164	8	85,391,046	85,466,753	75,707	14			
165	8	93,043,746	93,095,977	52,231	10	RUNX1T1	10	runt-related transcription factor 1; translocated to, 1 (cyclin D-related)
166	8	120,090,206	120,144,789	54,583	9			
167	8	126,640,170	126,713,113	72,943	9			
168	8	126,893,544	126,983,027	89,483	10			
169	8	131,985,423	132,071,897	86,474	9	ADCY8	9	adenylate cyclase 8 (brain)
170	8	134,190,336	134,248,176	57,840	12	TG	5	thyroglobulin
171	8	137,557,506	137,675,164	117,658	10			
172	8	141,551,417	141,647,658	96,241	9	EIF2C2	5	eukaryotic translation initiation factor 2C, 2
173	9	587,042	719,027	131,985	16	ANKRD15	16	ankyrin repeat domain 15
174	9	1,486,424	1,546,286	59,862	13			
175	9	2,953,302	3,002,218	48,916	9			
176	9	3,999,795	4,035,209	35,414	9	GLIS3	9	GLIS family zinc finger 3
177	9	4,971,257	5,124,615	153,358	20	JAK2	20	Janus kinase 2 (a protein tyrosine kinase)
177	9	4,971,257	5,124,615	153,358	20	IGHEP2	6	immunoglobulin heavy constant epsilon P2
178	9	8,533,416	8,625,992	92,576	10	PTPRD	10	protein tyrosine phosphatase, receptor type, D
179	9	10,508,294	10,561,886	53,592	9			
180	9	15,991,191	16,088,432	97,241	11			
181	9	16,662,901	16,735,580	72,679	11	BNC2	11	basonuclin 2
182	9	17,755,897	17,834,090	78,193	11			
183	9	71,219,408	71,230,364	10,956	9	APBA1	6	amyloid beta (A4) precursor protein-binding, family A, member 1 (X11)
184	9	77,398,330	77,512,144	113,814	9			
185	9	78,569,639	78,658,885	89,246	9	C9orf65	4	chromosome 9 open reading frame 65
186	9	82,952,058	83,039,528	87,470	9			
187	9	86,889,687	87,047,257	157,570	15			
188	9	91,743,956	91,828,958	85,002	10			
189	9	95,388,806	95,478,448	89,642	9	PHF2	9	PHD finger protein 2
190	9	96,798,603	96,907,384	108,781	9	C9orf3	7	chromosome 9 open reading frame 3
191	9	97,246,997	97,329,302	82,305	21	PTCH	19	patched homolog (Drosophila)
192	9	104,256,371	104,355,587	99,216	10			
193	9	105,855,524	105,889,881	34,357	9			
194	9	108,927,532	109,057,860	130,328	10			
195	9	113,336,124	113,457,280	121,156	9	bA16L21.2.1	3	DnaJ-like protein
195	9	113,336,124	113,457,280	121,156	9	ZNF483	3	zinc finger protein 483
196	9	117,570,409	117,673,598	103,189	9			
197	9	125,757,210	125,841,036	83,826	12	LHX2	7	LIM homeobox 2
198	9	131,587,721	131,688,908	101,187	9	USP20	6	ubiquitin specific peptidase 20
199	9	132,605,543	132,758,499	152,956	22	ABL1	22	v-abl Abelson murine leukemia viral oncogene homolog 1
200	9	134,710,807	134,823,571	112,764	16	TSC1	9	tuberous sclerosis 1
200	9	134,710,807	134,823,571	112,764	16	C9orf98	5	chromosome 9 open reading frame 98
200	9	134,710,807	134,823,571	112,764	16	C9orf9	3	chromosome 9 open reading frame 9
201	10	4,287,241	4,322,032	34,791	9			
202	10	4,411,971	4,502,216	90,245	11			
203	10	11,148,305	11,285,116	136,811	12	CUGBP2	12	CUG triplet repeat, RNA binding protein 2
204	10	12,961,507	13,046,588	85,081	9	CCDC3	8	coiled-coil domain containing 3
205	10	13,287,895	13,371,146	83,251	10	C10orf49	5	chromosome 10 open reading frame 49
205	10	13,287,895	13,371,146	83,251	10	RNU6B	3	RNA, U6B small nuclear
206	10	14,532,193	14,644,726	112,533	11	FAM107B	7	family with sequence similarity 107, member B
207	10	42,905,952	42,957,467	51,515	12	RET	11	ret proto-oncogene (multiple endocrine neoplasia and medullary thyroid carcinoma 1, Hirschsprung)
208	10	60,984,289	61,054,535	70,246	9			
209	10	82,435,703	82,509,035	73,332	12			
210	10	85,319,879	85,452,396	132,517	10			
211	10	86,117,837	86,267,641	149,804	13	KIAA1128	13	KIAA1128
212	10	89,669,390	89,781,762	112,372	16	PTEN	10	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)
213	10	107,866,050	107,940,878	74,828	10			
214	10	123,247,250	123,345,467	98,217	14	FGFR2	14	fibroblast growth factor receptor 2 (bacteria-expressed kinase, keratinocyte growth factor receptor,
215	11	4,465,262	4,518,181	52,919	9	OR52M2P	3	olfactory receptor, family 52, subfamily M, member 2 pseudogene
216	11	5,438,657	5,519,955	81,298	9	OR51A10P	3	olfactory receptor, family 51, subfamily A, member 10 pseudogene
217	11	8,344,714	8,427,981	83,267	9	STK33	6	serine/threonine kinase 33
218	11	17,063,755	17,128,652	64,897	9	PIK3C2A	9	phosphoinositide-3-kinase, class 2, alpha polypeptide
219	11	18,908,495	18,954,001	45,506	10	MRGPRX1	5	MAS-related GPR, member X1
220	11	29,408,632	29,474,353	65,721	10			
221	11	35,153,927	35,214,241	60,314	9	CD44	9	CD44 molecule (Indian blood group)
222	11	36,046,586	36,147,047	100,461	10	LDLRAD3	10	low density lipoprotein receptor class A domain containing 3
223	11	68,231,032	68,364,574	133,542	9	CPT1A	6	carnitine palmitoyltransferase 1A (liver)
223	11	68,231,032	68,364,574	133,542	9	MTL5	4	metallothionein-like 5, testis-specific (tesmin)
224	11	74,767,766	74,834,323	66,557	9	FLJ33790	3	hypothetical protein FLJ33790
224	11	74,767,766	74,834,323	66,557	9	GDPD5	3	glycerophosphodiester phosphodiesterase domain containing 5
224	11	74,767,766	74,834,323	66,557	9	RPS3	3	ribosomal protein S3
224	11	74,767,766	74,834,323	66,557	9	SNORD15A	3	small nucleolar RNA, C/D box 15A

225	11	75,124,134	75,222,859	98,725	10	DGAT2	5	diacylglycerol O-acyltransferase homolog 2 (mouse)
225	11	75,124,134	75,222,859	98,725	10	UVRAG	3	UV radiation resistance associated gene
226	11	81,970,044	82,027,319	57,275	9			
227	11	85,497,874	85,585,125	87,251	10			
228	11	87,233,068	87,302,214	69,146	9			
229	11	90,636,839	90,757,499	120,660	9			
230	11	100,414,310	100,510,884	96,574	13	PGR	13	progesterone receptor
231	11	114,316,116	114,382,576	66,460	9			
232	11	117,859,556	117,898,066	38,510	9	MLL	9	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila)
233	11	119,236,742	119,383,437	146,695	10			
234	11	124,160,645	124,245,269	84,624	9	C11orf61	3	chromosome 11 open reading frame 61
235	11	127,834,819	127,919,017	84,198	17	ETS1	16	v-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
236	12	2,363,938	2,442,056	78,118	9	CACNA1C	9	calcium channel, voltage-dependent, L type, alpha 1C subunit
237	12	11,670,476	11,834,613	164,137	26	ETV6	24	ets variant gene 6 (TEL oncogene)
238	12	12,385,309	12,519,249	133,940	13	LOH12CR1	12	loss of heterozygosity, 12, chromosomal region 1
239	12	12,554,607	12,653,049	98,442	11	DUSP16	7	dual specificity phosphatase 16
240	12	22,095,602	22,145,860	50,258	11	CMAS	4	cytidine monophosphate N-acetylneuraminic acid synthetase
241	12	25,110,642	25,141,730	31,088	9	LRMP	9	lymphoid-restricted membrane protein
242	12	27,518,374	27,542,077	23,703	9			
243	12	33,185,915	33,229,238	43,323	14			
244	12	64,897,766	65,001,497	103,731	9			
245	12	65,184,570	65,281,353	96,783	9	GRIP1	9	glutamate receptor interacting protein 1
246	12	67,501,000	67,529,968	28,968	10	MDM2	10	Mdm2, transformed 3T3 cell double minute 2, p53 binding protein (mouse)
247	12	72,433,505	72,524,546	91,041	9			
248	12	73,008,797	73,116,391	107,594	10			
249	12	83,463,665	83,594,153	130,488	11			
250	12	104,584,553	104,679,268	94,715	9			
251	12	107,303,950	107,355,808	51,858	9			
252	12	114,704,316	114,802,782	98,466	11			
253	12	116,257,826	116,317,106	59,280	9	NOS1	4	nitric oxide synthase 1 (neuronal)
254	12	125,358,436	125,430,302	71,866	10			
255	13	27,518,109	27,598,174	80,065	15	FLT3	14	fms-related tyrosine kinase 3
256	13	31,785,226	31,839,661	54,435	13	BRCA2	13	breast cancer 2, early onset
257	13	42,088,164	42,130,775	42,611	9			
258	13	47,755,041	47,854,190	99,149	13	RB1	11	retinoblastoma 1 (including osteosarcoma)
259	13	66,114,145	66,232,454	118,309	11	PCDH9	11	protocadherin 9
260	13	69,619,642	69,680,559	60,917	11			
261	13	79,453,594	79,514,996	61,402	9			
262	13	82,685,952	82,750,389	64,437	9			
263	13	101,381,936	101,490,849	108,913	10	FGF14	10	fibroblast growth factor 14
264	13	109,343,725	109,460,996	117,271	9			
265	14	29,035,872	29,156,729	120,857	10	PRKD1	5	protein kinase D1
266	14	32,657,458	32,788,358	130,900	10	NPAS3	10	neuronal PAS domain protein 3
267	14	50,484,071	50,560,634	76,563	10	TRIM9	9	tripartite motif-containing 9
268	14	52,796,130	52,895,069	98,939	13			
269	14	55,229,785	55,313,673	83,888	10			
270	14	60,524,781	60,608,660	83,879	10	SLC38A6	8	solute carrier family 38, member 6
271	14	62,941,082	63,040,274	99,192	9	PPP2R5E	9	protein phosphatase 2, regulatory subunit B (B56), epsilon isoform
272	14	63,766,162	63,830,070	63,908	13	ESR2	13	estrogen receptor 2 (ER beta)
273	14	77,421,158	77,496,277	75,119	9	ADCK1	5	aarF domain containing kinase 1
274	15	18,846,092	18,887,010	40,918	11			
275	15	19,911,384	20,018,451	107,067	11	OR4N3P	3	olfactory receptor, family 4, subfamily N, member 3 pseudogene
276	15	31,495,128	31,572,436	77,308	10	RYR3	10	ryanodine receptor 3
277	15	54,518,953	54,579,181	60,228	10	MNS1	5	meiosis-specific nuclear structural 1
278	15	64,207,043	64,315,055	108,012	10	MEGF11	10	multiple EGF-like-domains 11
279	15	66,457,383	66,519,155	61,772	10	ITGA11	10	integrin, alpha 11
280	15	72,067,051	72,114,524	47,473	10	PML	10	promyelocytic leukemia
281	15	74,678,920	74,729,056	50,136	9	ZNF291	9	zinc finger protein 291
282	15	90,567,835	90,621,172	53,337	11			
283	15	92,761,399	92,828,961	67,562	10	MCTP2	10	multiple C2 domains, transmembrane 2
284	16	23,460,282	23,541,590	81,308	9	EARS2	4	glutamyl-tRNA synthetase 2 (mitochondrial)(putative)
284	16	23,460,282	23,541,590	81,308	9	NDUFAB1	4	NADH dehydrogenase (ubiquinone) 1, alpha/beta subcomplex, 1, 8kDa
284	16	23,460,282	23,541,590	81,308	9	FLJ21816	3	hypothetical protein FLJ21816
284	16	23,460,282	23,541,590	81,308	9	UBPH	3	ubiquitin-binding protein homolog
285	16	26,829,376	26,912,543	83,167	9			
286	16	27,594,759	27,651,007	56,248	10	KIAA0556	10	KIAA0556 protein
287	16	45,921,236	45,969,018	47,782	9	ITFG1	9	integrin alpha FG-GAP repeat containing 1
288	16	52,031,300	52,080,916	49,616	11	RBL2	11	retinoblastoma-like 2 (p130)
289	16	63,189,755	63,322,472	132,717	12			
290	16	63,474,329	63,523,723	49,394	9			
291	16	64,310,429	64,388,652	78,223	9			
292	16	66,951,731	67,055,002	103,271	10	SMPD3	8	sphingomyelin phosphodiesterase 3, neutral membrane (neutral sphingomyelinase II)
293	16	72,737,649	72,833,460	95,811	9			
294	16	73,968,251	74,092,861	124,610	12	CFDP1	8	craniofacial development protein 1
294	16	73,968,251	74,092,861	124,610	12	CHST6	3	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 6
295	16	76,418,571	76,488,521	69,950	10	KIAA1576	10	KIAA1576 protein
296	16	77,561,023	77,620,362	59,339	11			
297	16	80,949,422	81,055,188	105,766	10			
298	16	83,221,941	83,301,074	79,133	10	C16orf44	4	chromosome 16 open reading frame 44
299	16	83,915,731	83,994,389	78,658	12			
300	16	85,069,964	85,165,188	95,224	9	MTHFSD	4	methenyltetrahydrofolate synthetase domain containing
301	17	9,292,495	9,385,394	92,899	10	STX8	10	syntaxin 8
302	17	19,443,132	19,506,432	63,300	9	ALDH3A2	4	aldehyde dehydrogenase 3 family, member A2
303	17	24,217,422	24,312,447	95,025	10	PHF12	5	PHD finger protein 12
303	17	24,217,422	24,312,447	95,025	10	FLOT2	3	flotillin 2
304	17	28,461,208	28,566,650	105,442	11	ACCN1	11	amiloride-sensitive cation channel 1, neuronal (degenerin)
305	17	35,092,923	35,136,457	43,534	12	ERBB2	12	v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogen
305	17	35,092,923	35,136,457	43,534	12	PERLD1	3	per1-like domain containing 1

306	17	50,678,634	50,846,295	167,661	14	HLF	5	hepatic leukemia factor
306	17	50,678,634	50,846,295	167,661	14	MMD	4	monocyte to macrophage differentiation-associated
307	17	59,657,640	59,782,626	124,986	14	PECAM1	5	platelet/endothelial cell adhesion molecule (CD31 antigen)
307	17	59,657,640	59,782,626	124,986	14	TEX2	5	testis expressed sequence 2
308	17	71,285,826	71,358,969	73,143	10	UNC13D	7	unc-13 homolog D (C. elegans)
308	17	71,285,826	71,358,969	73,143	10	ZC3H5	6	zinc finger CCCH-type containing 5
308	17	71,285,826	71,358,969	73,143	10	WBP2	4	WW domain binding protein 2
309	17	73,907,139	73,971,572	64,433	10	DNAH17	7	dynein, axonemal, heavy polypeptide 17
309	17	73,907,139	73,971,572	64,433	10	PGS1	5	phosphatidylglycerophosphate synthase 1
310	18	6,704,940	6,821,084	116,144	9			
311	18	28,108,406	28,194,436	86,030	9	FAM59A	9	family with sequence similarity 59, member A
312	18	32,350,975	32,475,536	124,561	10	FHOD3	10	formin homology 2 domain containing 3
313	18	33,747,148	33,842,056	94,908	10			
314	18	43,676,378	43,724,211	47,833	12	SMAD2	10	SMAD, mothers against DPP homolog 2 (Drosophila)
315	18	46,789,968	46,858,273	68,305	16	SMAD4	14	SMAD, mothers against DPP homolog 4 (Drosophila)
316	18	55,785,417	55,863,079	77,662	9			
317	18	58,922,895	59,028,058	105,163	13	BCL2	12	B-cell CLL/lymphoma 2
318	18	60,537,521	60,598,022	60,501	9			
319	19	9,438,447	9,553,898	115,451	9	ZNF121	3	zinc finger protein 121 (clone ZHC32)
319	19	9,438,447	9,553,898	115,451	9	ZNF560	3	zinc finger protein 560
320	19	39,609,295	39,658,792	49,497	9	UBA2	9	SUMO-1 activating enzyme subunit 2
321	19	39,776,121	39,878,749	102,628	10			
322	19	45,447,531	45,522,149	74,618	13	AKT2	11	v-akt murine thymoma viral oncogene homolog 2
322	19	45,447,531	45,522,149	74,618	13	MIRN641	5	microRNA 641
323	20	1,399,414	1,595,999	196,585	19	SIRPB1	8	signal-regulatory protein beta 1
323	20	1,399,414	1,595,999	196,585	19	SIRPD	4	signal-regulatory protein delta
323	20	1,399,414	1,595,999	196,585	19	SIRPG	4	signal-regulatory protein gamma
323	20	1,399,414	1,595,999	196,585	19	SIRPB2	3	signal-regulatory protein beta 2
324	20	7,240,792	7,386,321	145,529	13			
325	20	13,514,384	13,624,652	110,268	10	TASP1	5	taspace, threonine aspartase, 1
326	20	18,174,249	18,225,382	51,133	9	ZNF133	5	zinc finger protein 133
327	20	23,461,514	23,597,312	135,798	10			
328	20	24,898,844	25,016,552	117,708	10	C20orf3	5	chromosome 20 open reading frame 3
328	20	24,898,844	25,016,552	117,708	10	ACSS1	4	acyl-CoA synthetase short-chain family member 1
329	20	35,136,102	35,155,757	19,655	9	RBL1	9	retinoblastoma-like 1 (p107)
330	20	36,421,307	36,488,906	67,599	9	LBP	3	lipopolysaccharide binding protein
331	20	43,481,436	43,571,313	89,877	9	WFDC2	3	WAP four-disulfide core domain 2
332	20	48,562,736	48,639,539	76,803	20	PTPN1	20	protein tyrosine phosphatase, non-receptor type 1
332	20	48,562,736	48,639,539	76,803	20	MIRN645	5	microRNA 645
333	20	51,746,113	51,798,208	52,095	9			
334	20	54,090,327	54,212,606	122,279	10			
335	21	45,948,558	45,999,568	51,010	9			
336	22	17,405,213	17,466,749	61,536	9	DGCR2	9	DiGeorge syndrome critical region gene 2
337	22	19,389,671	19,510,261	120,590	23	PIK4CA	23	phosphatidylinositol 4-kinase, catalytic, alpha polypeptide
337	22	19,389,671	19,510,261	120,590	23	SERPIND1	9	serpin peptidase inhibitor, clade D (heparin cofactor), member 1
338	22	20,804,538	20,834,033	29,495	12	IGL@	12	immunoglobulin lambda locus
339	22	21,469,389	21,551,264	81,875	10	IGL@	10	immunoglobulin lambda locus
339	22	21,469,389	21,551,264	81,875	10	IGLV2-8	4	immunoglobulin lambda variable 2-8
339	22	21,469,389	21,551,264	81,875	10	IGLV3-10	4	immunoglobulin lambda variable 3-10
339	22	21,469,389	21,551,264	81,875	10	IGLV3-9	4	immunoglobulin lambda variable 3-9
339	22	21,469,389	21,551,264	81,875	10	MIRN650	4	microRNA 650
340	22	24,041,845	24,133,213	91,368	10	LRP5L	3	low density lipoprotein receptor-related protein 5-like
341	22	25,257,185	25,367,383	110,198	9	TPST2	5	tyrosylprotein sulfotransferase 2
342	22	39,820,180	39,949,460	129,280	15	EP300	12	E1A binding protein p300
343	22	47,510,034	47,583,523	73,489	11	FAM19A5	8	family with sequence similarity 19 (chemokine (C-C motif)-like), member A5
344	22	49,451,008	49,530,707	79,699	13	SHANK3	12	SH3 and multiple ankyrin repeat domains 3
344	22	49,451,008	49,530,707	79,699	13	ACR	3	acrosin