

Clone ID	Dog chromosome location	# scored	% loss	% gain	Human chromosome location	Gene Symbol	Gene Description	Human cytogenetic assignment (Entrez)						
CH82-335H19	chr1:21035971-21232172	110	0.9%	36.4%	chr18:55393674-55640478	<i>ATP8B1</i>	ATPase, class I, type 8B, member 1	18q21-q22 18q21.31						
						<i>PTCHD2</i>	patched domain containing 2	1p36.22						
						<i>FBXO2</i>	F-box protein 2	1p36.22						
						<i>FBXO44</i>	F-box protein 44	1p36.22						
						<i>FBXO6</i>	F-box protein 6	1p36.22						
						<i>MAD2L2</i>	MAD2 mitotic arrest deficient-like 2 (yeast)	1p36						
						<i>C1orf187</i>	chromosome 1 open reading frame 187	1p36.22						
						<i>AGTRAP</i>	angiotensin II receptor-associated protein	1p36.22						
						<i>MTHFR</i>	5,10-methylenetetrahydrofolate reductase (NADPH)	1p36.3						
						<i>CLCN6</i>	chloride channel 6	1p36						
CH82-349L24	chr2:87326057-87550438	103	4.9%	23.3%	chr11:11573472-11867777	<i>CAST</i>	calpastatin	5q15						
CH82-335M12	chr3:15867689-16066967	110	24.5%	10.0%	chr5:95812200-96050078	<i>FAM189A1</i>	family with sequence similarity 189, member A1	15q13.1						
CH82-126L20	chr3:41442419-41673900	108	19.4%	27.8%	chr15:29572544-29812637	<i>HS3ST6</i>	heparan sulfate (glucosamine) 3-O-sulfotransferase 6	16p13.3						
CH82-307I06						<i>SEPX1</i>	selenoprotein X, 1	16p13.3						
						<i>RPL3L</i>	ribosomal protein L3-like	16p13.3						
						<i>NDUFB10</i>	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 10, 22kDa	16p13.3						
						<i>RPS2</i>	ribosomal protein S2	16p13.3						
						<i>SNORA10</i>	small nucleolar RNA, H/ACA box 10	16p13.3						
						<i>SNORA64</i>	small nucleolar RNA, H/ACA box 64	16p13.3						
						<i>SNHG9</i>	small nucleolar RNA host gene 9 (non-protein coding)	16p13.3						
						<i>SNORA78</i>	small nucleolar RNA, H/ACA box 78	16p13.3						
						<i>RNF151</i>	ring finger protein 151	16p13.3						
						<i>TBL3</i>	transducin (beta)-like 3	16p13.3						
						<i>NOXO1</i>	NADPH oxidase organizer 1	16p13.3						
						<i>GFER</i>	growth factor, augmenter of liver regeneration	16p13.3-113.12						
						<i>SYNGR3</i>	synaptotagmin 3	16p13						
						<i>ZNF598</i>	zinc finger protein 598	16p13.3						
						<i>NPW</i>	neuropeptide W	16p13.3						
						<i>SLC9A3R2</i>	solute carrier family 9 (sodium/hydrogen exchanger), member 3 regulator 2	16p13.3						
						<i>NTHL1</i>	nth endonuclease III-like 1 (E. coli)	16p13.3						
						<i>TS2C2</i>	tuberous sclerosis 2	16p13.3						
						<i>PKD1</i>	polycystic kidney disease 1 (autosomal dominant)	16p13.3						
						<i>MIR1225</i>	microRNA 1225	16p13.3						
						<i>RAB26</i>	RAB26, member RAS oncogene family	16p13.3						
						<i>SNORD60</i>	small nucleolar RNA, C/D box 60	16p13.3						
						<i>TRAF7</i>	TNF receptor-associated factor 7	16p13.3						
						CH82-390J08	chr6:41842424-42061613	105	2.9%	23.8%	chr16:1945214-2210305	<i>LPGAT1</i>	lysophosphatidylglycerol acyltransferase 1	1q32
						CH82-307I06	chr6:49193261-49385361	107	26.2%	15.0%	chr1:105167711-105495138	<i>INTS7</i>	integrator complex subunit 7	1p36.13-q42.3
						CH82-126M10	chr7:13116075-13309044	52	0.0%	34.6%	chr1:211987003-212249063	<i>DTL</i>	denticleless homolog (Drosophila)	1q32.1-q32.2
												<i>ADSSL1</i>	adenylsuccinate synthase like 1	14q32.33
												<i>SIVA1</i>	SIVA1, apoptosis-inducing factor	14q32.33
												AKT1	v-akt murine thymoma viral oncogene homolog 1	14q32.32 14q32.32
												<i>ZBTB42</i>	zinc finger and BTB domain containing 42	14q32.33
<i>MGC32770</i>	hypothetical LOC196872	14q32.33												
<i>KIAA0284</i>	KIAA0284	14q32.33												
<i>PLD4</i>	phospholipase D family, member 4	14q32.33												
<i>AHNAK2</i>	AHNAK nucleoprotein 2	14q32.33												
<i>C14orf79</i>	chromosome 14 open reading frame 79	14q32.33												
<i>CDCA4</i>	cell division cycle associated 4	14q32.33												
<i>GPR132</i>	G protein-coupled receptor 132	14q32.3												
CH82-182L07	chr8:75349341-75550584	102	5.9%	26.5%	chr14:105212288-105550498	<i>SLC25A10</i>	solute carrier family 25 (mitochondrial carrier; dicarboxylate transporter), member 10	17q25.3						
CH82-27N17	chr8:75997303-76191846	103	32.0%	0.0%	nd	<i>GCGR</i>	glucagon receptor	17q25						
CH82-186F24	chr6:77034628-77215538	98	37.8%	6.1%	nd	<i>FAM195B</i>	family with sequence similarity 195, member B	17q25.3						
CH82-7K11	chr9:3283814-3479840	113	2.7%	23.0%	chr17:79678389-79998108	<i>DYSFIP1</i>	dysferlin interacting protein 1	17q25.3						
						<i>P4HB</i>	prolyl 4-hydroxylase, beta polypeptide	17q25						
						<i>ARHGDA1A</i>	Rho GDP dissociation inhibitor (GDI) alpha	17q25.3						
						<i>THOC4</i>	THO complex 4	17q25.3						
						<i>ANAPC11</i>	anaphase promoting complex subunit 11	17q25.3						
						<i>NPB</i>	neuropeptide B	17q25.3						
						<i>PCYT2</i>	phosphate cytidylyltransferase 2, ethanolamine	17q25.3						
						<i>SIRT7</i>	sirtuin (silent mating type information regulation 2 homolog) 7 (S. cerevisiae)	17q25						
						<i>MAFG</i>	v-maf musculoaponeurotic fibrosarcoma oncogene homolog G (avian)	17q25.3						
						<i>LOC92659</i>	hypothetical LOC92659	17q25.3						
						<i>PYCR1</i>	pyrroline-5-carboxylate reductase 1	17q25.3						
						<i>MYADM12</i>	myeloid-associated differentiation marker-like 2	17q25.3						
						<i>NOTUM</i>	notum pectinacetyltransferase homolog (Drosophila)	17q25.3						
						ASPSCR1	alveolar soft part sarcoma chromosome region, candidate 1	17q25.3						
						<i>STRA13</i>	stimulated by retinoic acid 13 homolog (mouse)	17q25.3						
						<i>LRR45</i>	leucine rich repeat containing 45	17q25.3						
						<i>RAC3</i>	ras-related C3 botulinum toxin substrate 3 (rho family, small GTP binding protein Rac3)	17q25.3						
						<i>DCXR</i>	dicarboxyl-L-xylylucose reductase	17q25.3						
						<i>C9orf140</i>	chromosome 9 open reading frame 140	9q34.3						
						<i>UAP1L1</i>	UDP-N-acetylglucosamine pyrophosphorylase 1-like 1	9q34.3						
						<i>LOC100289341</i>	similar to hCG2022304	9q34.3						
						<i>MAN1B1</i>	mannosidase, alpha, class 1B, member 1	9q34						
						<i>PPP7</i>	dipeptidyl-peptidase 7	9q34.3						
						<i>GRIN1</i>	glutamate receptor, ionotropic, N-methyl D-aspartate 1	9q34.3						
						<i>LRR426</i>	leucine rich repeat containing 26	9q34.3						
						<i>ANAPC2</i>	anaphase promoting complex subunit 2	9q34.3						
						<i>SSNA1</i>	Sjogren syndrome nuclear autoantigen 1	9q34.3						
						<i>TPRN</i>	taperin	9q34.3						
						<i>TMEM203</i>	transmembrane protein 203	9q34.3						
						<i>NDOR1</i>	NADPH dependent diflavin oxidoreductase 1	9q34.3						
<i>RNF208</i>	ring finger protein 208	9q34.3												
<i>C9orf169</i>	chromosome 9 open reading frame 169	9q34.3												

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CH82-191C16	chr9:51728581-51921514	98	5.1%	23.5%	chr9:139949582-140188358	LOC643596	hypothetical LOC643596	9q34.3						
						SLC24A3	solute carrier family 34 (sodium phosphate), member 3	9q34						
						TUBB2C	tubulin, beta 2C	9q34						
						FAM166A	family with sequence similarity 166, member A	9q34.3						
						C9orf173	chromosome 9 open reading frame 173	9q34.3						
						COBRA1	cofactor of BRCA1	9q34						
						C9orf167	chromosome 9 open reading frame 167	9q34.3						
						GARNL3	GTase activating Rap/RanGAP domain-like 3	9q33.3						
						SLC2A8	solute carrier family 2 (facilitated glucose transporter), member 8	9q33.3						
						ZNF79	zinc finger protein 79	9q34						
CH82-126H22	chr9:59165710-59371881	111	20.7%	0.0%	chr9:130038258-130308910	RPL12	ribosomal protein L12	9q34						
						SNORA65	small nucleolar RNA, H/ACA box 65	9q34						
						LRSAMI	leucine rich repeat and sterile alpha motif containing 1	9q33.3						
						FAM129B	family with sequence similarity 129, member B	9q33.3-q34.11						
						CDC42EP1	CDC42 effector protein (Rho GTPase binding) 1	22q13.1						
						LGALS2	lectin, galactoside-binding, soluble, 2	22q12-q13 22q13.1						
						GGAI1	gq1q-associated, gamma adaptin ear containing, ARF binding protein 1	22q13.31						
						SH3BP1	SH3-domain binding protein 1	22q13.1						
						PDXP	pyridoxal (pyridoxine, vitamin B6) phosphatase	22cen-q12.3						
						LGALS1	lectin, galactoside-binding, soluble, 1	22q13.1						
CH82-126H04	chr10:29914305-30103505	112	3.6%	23.2%	chr22:37948701-38188788	NOL12	nucleolar protein 12	22q13.1						
						TRIOBP	TRIO and F-actin binding protein	22q13.1						
						MYH9	myosin, heavy chain 9, non-muscle	22q13.1						
						TXN2	thioredoxin 2	22q13.1						
						FOXRED2	FAD-dependent oxidoreductase domain containing 2	22q12.3						
						ADD2	adducin 2 (beta)	2n14-p13						
						FIGLA	folliculogenesis specific basic helix-loop-helix	2p13.3						
						CLEC4F	C-type lectin domain family 4, member F	2p13.3						
						CD207	CD207 molecule, langerin	2p13						
						VAX2	ventral anterior homeobox 2	2p13						
CH82-122D20	chr10:30979474-31151498	95	0.0%	40.0%	chr22:36725725-36903689	EPH47	EPH receptor A7	6q16.1						
						MIRAL2	MIPA-like domain containing 2	8q22.2						
						KCNS2	potassium voltage-gated channel, delayed-rectifier, subfamily S, member 2	8q22						
						VPS13B	vacuolar protein sorting 13 homolog B (yeast)	8q22.2						
						MIR599	microRNA 599	8q22.2						
						MIR875	microRNA 875	8q22.2						
						ODF1	outer dense fiber of sperm tails 1	8q22.3						
						KLF10	Kruppel-like factor 10	8q22.2						
						DPSY	dihydropyrimidinase	8q22						
						LRP12	low density lipoprotein receptor-related protein 12	8q22.2-q23.1						
CH82-330P10	chr10:72197473-72387373	109	5.5%	21.1%	chr2:70859179-71135120	NUDCD1	NudC domain containing 1	8q23						
						ENV2	enhancer of yellow 2 homolog (Drosophila)	8q23.1						
						EXT1	exostoses (multiple) 1	8q24.11-q24.13						
						SAMD12	sterile alpha motif domain containing 12	8q24.12						
						NOV	nephroblastoma overexpressed gene	8q24.1						
						CH82-126O14	chr12:55210203-55385761	52	0.0%	46.2%	chr6:94030118-94216120	FER1L6	fer-1-like 6 (C. elegans)	-
												MYC	v-myc myelocytomatosis viral oncogene homolog (avian)	8q24.21
												ADCY8	adenylyl cyclase 8 (brain)	8q24
												KCNO3	potassium voltage-gated channel, KOT-like subfamily, member 3	8q24
												ZFAT	zinc finger and AT hook domain containing	8q24.22
ZFATAS	ZFAT antisense RNA (non-protein coding)	8q24.22												
CH82-328P06	chr13:8630921-8818498	108	0.9%	34.3%	chr8:105416146-105665885							PTK2	PTK2 protein tyrosine kinase 2	8q24-qter
												TSNARE1	t-SNARE domain containing 1	8q24.3
												BAI1	brain-specific angiogenesis inhibitor 1	8q24
												ARC	activity-regulated cytoskeleton-associated protein	8q24.3
						HSF1	heat shock transcription factor 1	8q24.3						
						DGAT1	diacylglycerol O-acyltransferase homolog 1 (mouse)	8q24.3						
						SCRT1	scratch homolog 1, zinc finger protein (Drosophila)	8q24.3						
						CBORFK29	hypothetical LOC340393	8q24.3						
						FBXL6	F-box and leucine-rich repeat protein 6	8q24.3						
						GPR172A	G protein-coupled receptor 172A	8q24.3						
CH82-326G03	chr13:9888412-10077025	104	0.0%	27.9%	chr8:106907474-107185416	ADCK5	aaRF domain containing kinase 5	8q24.3						
						CPSF1	cleavage and polyadenylation specific factor 1, 160kDa	8q24.23						
						MIR939	microRNA 939	8q24.3						
						MIR1234	microRNA 1234	-						
						SLC39A4	solute carrier family 39 (zinc transporter), member 4	8q24.3						
						VPS28	vacuolar protein sorting 28 homolog (S. cerevisiae)	8q24.3						
						NFKB1L2	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor-like 2	8q24.3						
						CYHR1	cysteine/histidine-rich 1	8q24.3						
						KIFC2	kinesin family member C2	8q24.3						
						FOXH1	forkhead box H1	8q24.3						
CH82-186J06	chr13:38344515-38552798	108	0.0%	43.5%	chr8:141669136-141928990	LIMCH1	LIM and calponin homology domains 1	4p13						
						USP46	ubiquitin specific peptidase 46	4q12						
						KIAA0114	KIAA0114	4q12						
						SNORA26	small nucleolar RNA, H/ACA box 26	4q12						
						RPL21P44	ribosomal protein L21 pseudogene 44	4q12						
						CHIC2	cysteine-rich hydrophobic domain 2	4q11						
						KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12						
						CH82-186J22	chr13:45483218-45670474	112	0.0%	25.9%	chr4:4647999-46722549	FBXL6	F-box and leucine-rich repeat protein 6	8q24.3
												GPR172A	G protein-coupled receptor 172A	8q24.3
												ADCK5	aaRF domain containing kinase 5	8q24.3
CPSF1	cleavage and polyadenylation specific factor 1, 160kDa	8q24.23												
MIR939	microRNA 939	8q24.3												
MIR1234	microRNA 1234	-												
SLC39A4	solute carrier family 39 (zinc transporter), member 4	8q24.3												
VPS28	vacuolar protein sorting 28 homolog (S. cerevisiae)	8q24.3												
NFKB1L2	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor-like 2	8q24.3												
CYHR1	cysteine/histidine-rich 1	8q24.3												
CH82-398P13	chr13:40762011-40939942	113	0.9%	37.2%	chr8:145523684-145710479	USP46	ubiquitin specific peptidase 46	4q12						
						KIAA0114	KIAA0114	4q12						
						SNORA26	small nucleolar RNA, H/ACA box 26	4q12						
						RPL21P44	ribosomal protein L21 pseudogene 44	4q12						
						CHIC2	cysteine-rich hydrophobic domain 2	4q11						
						KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12						
						CH82-323B16	chr13:41613250-41796345	112	2.7%	41.1%	chr4:41414665-41631385	USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
CHIC2	cysteine-rich hydrophobic domain 2	4q11												
KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12												
CH82-388P03	chr13:43328496-43501635	112	0.9%	23.2%	chr4:43567811-43833807							USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
						CHIC2	cysteine-rich hydrophobic domain 2	4q11						
						KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12						
						CH82-186J22	chr13:45483218-45670474	112	0.0%	25.9%	chr4:4647999-46722549	USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
CHIC2	cysteine-rich hydrophobic domain 2	4q11												
KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12												
CH82-191B15	chr13:49339012-49547283	111	0.0%	36.9%	chr4:54706702-54937099							USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
						CHIC2	cysteine-rich hydrophobic domain 2	4q11						
						KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12						
						CH82-524B22	chr13:49991362-50201827	112	0.0%	39.3%	chr4:55473043-55723285	USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
CHIC2	cysteine-rich hydrophobic domain 2	4q11												
KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12												
CH82-98B16	chr13:50017517-50212194	110	1.8%	33.6%	chr4:55497669-55737857							USP46	ubiquitin specific peptidase 46	4q12
												KIAA0114	KIAA0114	4q12
												SNORA26	small nucleolar RNA, H/ACA box 26	4q12
												RPL21P44	ribosomal protein L21 pseudogene 44	4q12
						CHIC2	cysteine-rich hydrophobic domain 2	4q11						
						KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	4q11-q12						

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CH82-186108	chr13:50171622-50370090	105	0.0%	43.8%	chr4:55681327-55940616			
CH82-330611	chr13:51352542-51547357	113	0.0%	25.7%	chr4:57035548-57256686	<i>KIAA1211</i>	KIAA1211	4q12
CH82-328B19	chr13:53334697-53537896	96	2.1%	26.0%	chr4:59317732-59587167	<i>AASDH</i>	aminoacidpate-semialdehyde dehydrogenase	4q12
CH82-197F14	chr13:57193340-57220807	86	0.0%	30.2%	chr4:63869308-63902557			
CH82-474105	chr13:60719125-60914172	113	0.0%	25.7%	chr4:67987053-68242173			
CH82-323012	chr13:61972683-62157466	110	0.9%	21.8%	chr4:70212051-70577710	<i>UGT2B4</i>	UDP glucuronosyltransferase 2 family, polypeptide B4	4q13
CH82-340G10	chr13:63490308-63673646	112	0.9%	32.1%	chr4:72305759-72523249	<i>UGT2A1</i>	UDP glucuronosyltransferase 2 family, polypeptide A1	4q13
CH82-186G02	chr13:64868824-65056232	103	1.0%	34.0%	chr4:73989160-74216896	<i>UGT2A2</i>	UDP glucuronosyltransferase 2 family, polypeptide A2	4q13.3
CH82-122004	chr14:28016658-28209743	108	6.5%	25.9%	chr7:9805474-10068600	<i>SLC44A4</i>	solute carrier family 4, sodium bicarbonate cotransporter, member 4	4q21
CH82-186K08	chr16:4135123-4259796	110	10.9%	22.7%	chr7:45313227-45635342	<i>ANKRD17</i>	ankyrin repeat domain 17	4q13.3
CH82-326D07	chr17:3201167-3398989	101	7.9%	27.7%	chr2:253915-574648	<i>ADCY1</i>	adenylate cyclase 1 (brain)	7p13-p12
CH82-521K12	chr18:28514173-28761057	110	3.6%	22.7%	chr11:374100-713014	<i>SH3YL1</i>	SH3 domain containing, Ysc84-like 1 (S. cerevisiae)	2p25.3
CH82-335E11	chr20:9093097-9273156	111	0.0%	20.7%	chr3:12325450-12527804	<i>ACP1</i>	acid phosphatase 1, soluble	2p25
CH82-287E13	chr20:41988099-42196399	112	5.4%	22.3%	chr3:50159395-50407287	<i>FAM150B</i>	family with sequence similarity 150, member B	2p25.3
CH82-325G21	chr20:60892993-61088125	101	1.0%	26.7%	chr19:582910-922007	<i>B4GALNT4</i>	beta-1,4-N-acetyl-galactosaminyl transferase 4	11p15.5
CH82-126K03	chr22:6667906-6872711	108	23.1%	15.7%	chr13:48011064-48228965	<i>PKP3</i>	plakophilin 3	11p15.5
CH82-182B05	chr24:49428264-49626425	106	5.7%	27.4%	chr20:60988628-61343858	<i>SIGIRR</i>	single immunoglobulin and toll-interleukin 1 receptor (TIR) domain	11p15.5
CH82-315F17	chr26:28431891-28682961	57	29.8%	8.8%	nd	<i>ANO9</i>	anoctamin 9	11p15.5
CH82-313020	chr26:29493753-29700773	97	44.3%	1.0%	nd	<i>PTDSS2</i>	phosphatidylinserine synthase 2	11p15.5
CH82-518M17	chr26:30333217-30501573	106	69.8%	0.0%	chr22:23040362-23163490	<i>RNH1</i>	ribonuclease/angiogenin inhibitor 1	11p15.5
CH82-328I02	chr27:16163484-16258720	104	29.8%	21.2%	chr12:40807684-40854854	<i>HRAS</i>	v-Ha-ras Harvey rat sarcoma viral oncogene homolog	11p15.5
						<i>HRX356</i>	leucine rich repeat containing 56	11p15.5
						<i>C11orf35</i>	chromosome 11 open reading frame 35	11p15.5
						<i>RASSF7</i>	Ras association (RalGDS/AF-6) domain family (N-terminal) member 7	11p15.5
						<i>MIR210</i>	microRNA 210	11p15.5
						<i>LOC143666</i>	hypothetical protein LOC143666	11p15.5
						<i>PHRF1</i>	PHD and ring finger domains 1	11p15.5
						<i>IRF7</i>	interferon regulatory factor 7	11p15.5
						<i>CDHR5</i>	cadherin-related family member 5	11p15.5
						<i>SCT</i>	secretin	11p15.5
						<i>DRD4</i>	dopamine receptor D4	11p15.5
						<i>DEAF1</i>	deformed epidermal autoregulatory factor 1 (Drosophila)	11p15.5
						<i>TMEM80</i>	transmembrane protein 80	11p15.5
						<i>EPSB2</i>	EP5B-like 2	11p15.5
						<i>PPARG</i>	peroxisome proliferator-activated receptor gamma	3p25
						<i>TSEN2</i>	tRNA splicing endonuclease 2 homolog (S. cerevisiae)	3p25.2
						<i>SEMA3F</i>	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3F	3p21.3
						<i>GNAT1</i>	guanine nucleotide binding protein (G protein), alpha transducing activity polypeptide 1	3p21
						<i>SLC38A3</i>	solute carrier family 38, member 3	3p21.3
						<i>GNAI2</i>	guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2	3p21
						<i>SEMA3B</i>	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3B	3p21.3
						<i>C3orf45</i>	chromosome 3 open reading frame 45	3p21.31
						<i>IFRD2</i>	interferon-related developmental regulator 2	3p21.3
						<i>HYAL3</i>	hyaluronoglucosaminidase 3	3p21.3
						<i>NAT6</i>	N-acetyltransferase 6 (GCN5-related)	3p21.3
						<i>HYAL1</i>	hyaluronoglucosaminidase 1	3p21.3-p21.2
						<i>HYAL2</i>	hyaluronoglucosaminidase 2	3p21.3
						<i>TUSC2</i>	tumor suppressor candidate 2	3p21.3
						<i>RASSF1</i>	Ras association (RalGDS/AF-6) domain family member 1	3p21.3
						<i>ZMYND10</i>	zinc finger, MYND-type containing 10	3p21.3
						<i>NPR2</i>	nitrogen permease regulator-like 2 (S. cerevisiae)	3p21.3
						<i>CYB561D2</i>	cytochrome b-561 domain containing 2	3p21.3
						<i>TMEM115</i>	transmembrane protein 115	3p21.3
						<i>CACNA2D2</i>	calcium channel, voltage-dependent, alpha 2/delta subunit 2	3p21.3
						<i>BSG</i>	basigin (Ok blood group)	19p13.3
						<i>HCN2</i>	hyperpolarization activated cyclic nucleotide-gated potassium channel 2	19p13.3
						<i>POLRMT</i>	polymerase (RNA) mitochondrial (DNA directed)	19p13.3
						<i>FGF22</i>	fibroblast growth factor 22	19p13.3
						<i>RNF126</i>	ring finger protein 126	19p13.3
						FSTL3	folliculin-like 3 (secreted glycoprotein)	19p13
						<i>PRSS1</i>	protease, serine-like 1	19p13.3
						<i>PALM</i>	paralemmin	19p13.3
						<i>C19orf21</i>	chromosome 19 open reading frame 21	19p13.3
						<i>PTBP1</i>	polypyrimidine tract binding protein 1	19p13.3
						<i>LPR3</i>	lipid phosphate phosphatase-related protein type 3	19p13.3
						<i>AZU1</i>	azuricin 1	19p13.3
						<i>PRTN3</i>	proteinase 3	19p13.3
						<i>ELANE</i>	elastase, neutrophil expressed	19p13.3
						<i>CFD</i>	complement factor D (adipsin)	19p13.3
						<i>MED16</i>	mediator complex subunit 16	19p13.3
						<i>C19orf22</i>	chromosome 19 open reading frame 22	19p13.3
						<i>KISS1R</i>	KISS1 receptor	19p13.3
						<i>C20orf151</i>	chromosome 20 open reading frame 151	20q13.33
						<i>GATA5</i>	GATA binding protein 5	20q13.33
						<i>C20orf200</i>	chromosome 20 open reading frame 200	20q13.33
						<i>C20orf166</i>	chromosome 20 open reading frame 166	20q13.33
						<i>MIR1-1</i>	microRNA 1-1	20q13.33
						<i>MIR133A2</i>	microRNA 133a-2	20q13.33
						<i>SLC04A1</i>	solute carrier organic anion transporter family, member 4A1	20q13.33
						<i>LOC100127888</i>	hypothetical protein LOC100127888	20q13.33
						<i>NTSR1</i>	neurotensin receptor 1 (high affinity)	20q13

Clone ID	Dog chromosome location	# scored	% loss	% gain	Human chromosome location	Gene Symbol	Gene Description	Human cytogenetic assignment (Entrez)
CH82-335H02	chr29:9633231-9804796	112	0.0%	31.3%	chr8:56004716-56170069	<i>XKR4</i>	XK, Kell blood group complex subunit-related family, member 4	8q12.1
CH82-328A08	chr31:5663658-5861019	110	1.8%	21.8%	chr3:85077215-85292508	<i>CADM2</i>	cell adhesion molecule 2	3p12.1
						<i>LIP1</i>	lipin, member 1	21q11.2
						<i>RBM11</i>	RNA binding motif protein 11	21q11
CH82-328N02	chr31:14197845-14392011	107	1.9%	23.4%	chr21:15576483-15758359	<i>ABCC13</i>	ATP-binding cassette, sub-family C (CFTR/MRP), member 13	21q11.2
CH82-323A05	chr31:16689940-16903251	112	0.9%	20.5%	chr21:18384552-18724282	<i>HSPA13</i>	heat shock protein 70kDa family, member 13	21q11.1 21q11
CH82-791I0	chr31:18603440-18815254	93	1.1%	21.5%	chr21:20791371-21043655			
						<i>DNAJC28</i>	DnaJ (Hsp40) homolog, subfamily C, member 28	21q22.11
						<i>GART</i>	phosphoribosylglycinamide formyltransferase, phosphoribosylaminoimidazole synthetase	21q22.1 21q22.11
						<i>SON</i>	SON DNA binding protein	21q22.1-q22.2 21q22.11
						<i>DONSON</i>	downstream neighbor of SON	21q22.1
CH82-309P19	chr31:31123435-31311223	108	0.0%	24.1%	chr21:34857456-35070402	<i>CRYZL1</i>	crystallin, zeta (quinone reductase)-like 1	21q21.3
CH82-197B21	chr31:32547604-32755647	112	0.0%	20.5%	chr21:36433856-36682123	<i>ITSN1</i>	intersectin 1 (SH3 domain protein)	21q22.1-q22.2
CH82-330O21	chr31:35133151-35336638	108	0.0%	26.9%	chr21:39290645-39488665	<i>DSCR4</i>	Down syndrome critical region gene 4	21q22.2
						<i>BRWD1</i>	bromodomain and WD repeat domain containing 1	21q22.2
						<i>HMGNI</i>	high-mobility group nucleosome binding domain 1	21q22.3 21q22.2
						<i>WRB</i>	tryptophan rich basic protein	21q22.3
CH82-362A18	chr31:36306767-36501061	113	0.0%	20.4%	chr21:40578774-40791137	<i>LCA5L</i>	Leber congenital amaurosis 5-like	21q22.2
CH82-188N02	chr31:37676109-37882008	113	0.0%	23.0%	chr21:42164751-42411140	<i>DSCAM</i>	Down syndrome cell adhesion molecule	21q22.2
						<i>ZNF295</i>	zinc finger protein 295	21q22.3
						<i>C21orf121</i>	chromosome 21 open reading frame 121	21q22.3
						<i>UMODL1</i>	uromodulin-like 1	21q22.3
						<i>C21orf128</i>	chromosome 21 open reading frame 128	21q22.3
CH82-205C10	chr31:38695825-38905561	113	1.8%	22.1%	chr21:43403628-43651726	<i>ABCG1</i>	ATP-binding cassette, sub-family G (WHITE), member 1	21q22.3
						<i>C21orf29</i>	chromosome 21 open reading frame 29	21q22.3
						<i>C21orf90</i>	chromosome 21 open reading frame 90	21q22.3
						<i>KRTAP10-1</i>	keratin associated protein 10-1	21q22.3
						<i>KRTAP10-2</i>	keratin associated protein 10-2	21q22.3
						<i>KRTAP10-3</i>	keratin associated protein 10-3	21q22.3
						<i>KRTAP10-4</i>	keratin associated protein 10-4	21q22.3
						<i>KRTAP10-5</i>	keratin associated protein 10-5	21q22.3
						<i>KRTAP10-6</i>	keratin associated protein 10-6	21q22.3
						<i>KRTAP10-7</i>	keratin associated protein 10-7	21q22.3
						<i>KRTAP10-8</i>	keratin associated protein 10-8	21q22.3
						<i>KRTAP10-9</i>	keratin associated protein 10-9	21q22.3
						<i>KRTAP10-10</i>	keratin associated protein 10-10	21q22.3
						<i>KRTAP10-11</i>	keratin associated protein 10-11	21q22.3
						<i>KRTAP12-4</i>	keratin associated protein 12-4	21q22.3
						<i>KRTAP12-3</i>	keratin associated protein 12-3	21q22.3
						<i>KRTAP12-2</i>	keratin associated protein 12-2	21q22.3
						<i>KRTAP12-1</i>	keratin associated protein 12-1	21q22.3
						<i>KRTAP10-12</i>	keratin associated protein 10-12	21q22.3
CH82-182M14	chr31:40609436-40774701	110	0.9%	21.8%	chr21:45934664-46196115	<i>UBE2G2</i>	ubiquitin-conjugating enzyme E2G 2 (UBC7 homolog, yeast)	21q22.3
						<i>COL18A1</i>	collagen, type XVIII, alpha 1	21q22.3
CH82-161M15	chr31:41245748-41445063	112	0.9%	20.5%	chr21:46886264-47175836	<i>SLC19A1</i>	solute carrier family 19 (folate transporter), member 1	21q22.3
CH82-197H12	chr31:42061132-42084242	77	2.6%	31.2%	chr21:47889964-47921052	<i>DIP2A</i>	DIP2 disco-interacting protein 2 homolog A (Drosophila)	21q22.3
CH82-335G24	chr36:11322918-11508563	108	0.0%	34.3%	chr21:163761181-163990785			
CH82-315N13	chrX:4382351-4589338	107	21.5%	0.9%	chrX:7213606-7488068	<i>STS</i>	steroid sulfatase (microsomal), isozyme S	Xp22.32
CH82-126J24	chrX:66297723-66532843	106	19.8%	33.0%	nd			
CH82-184J03	chrX:108872756-108912373	111	11.7%	27.0%	chrX:134417680-134432578	<i>ZNF75D</i>	zinc finger protein 75D	Xq26.3
CH82-126I09	chrX:121537613-121744136	106	0.0%	32.1%	chrX:149356337-149590018	<i>MAMLD1</i>	mastermind-like domain containing 1	Xq28

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