

Table S4. List of genes in upper 1% F_{ST} distribution in comparison of brown layers and white layers.

Chr	Start	End	Description	Fst
1	9325096	9459193	semaphorin-3E precursor	0.686
1	9561909	9881531	piccolo presynaptic cytomatrix protein	0.686
1	14213411	14241547	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma isoform	0.713
1	14328390	14346800	protein kinase, cAMP-dependent, regulatory, type II, beta	0.713
1	14356759	14367631	HMG box-containing protein 1	0.713
1	14369255	14553213	conserved oligomeric Golgi complex subunit 5	0.713
1	14553188	14563663	dihydrouridine synthase 4-like (<i>S. cerevisiae</i>)	0.713
1	14567866	14591310	B-cell receptor-associated protein 29	0.713
1	14621478	14632510	E3 ubiquitin-protein ligase Hakai	0.713
1	14632208	14642808	chloride anion exchanger	0.713
1	14666134	14679885	dihydrolipoyl dehydrogenase, mitochondrial	0.713
1	14681577	14715087	Laminin subunit beta-1	0.713
1	14777556	14800582	endoplasmic reticulum-Golgi intermediate compartment protein 2	0.713
1	14916517	15054085	solute carrier family 2 (facilitated glucose transporter), member 13	0.713
1	24794262	24882798	hepatocyte growth factor receptor precursor	0.507
1	25847642	26191414	FoxP2; Uncharacterized protein	0.753
1	26299344	26325360	protein phosphatase 1, regulatory subunit 3A	0.753
1	28473454	28508702	calcium-independent phospholipase A2-gamma	0.568
1	31999958	32082280	monocarboxylate transporter 2	0.526
1	35865662	36009723	protein tyrosine phosphatase, receptor type, R	0.607
1	40131212	40428161	protein tyrosine phosphatase, receptor type, f polypeptide (PTPRF), interacting protein (liprin), alpha 2	0.560
1	40619495	40678658	methyltransferase like 25	0.560
1	42095834	42213439	Alpha-1,3-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase C	0.636
1	43171637	43175978	dual specificity protein phosphatase 6	0.642
1	43207669	43254712	WD repeat-containing protein 51B	0.642
1	43273706	43305815	plasma membrane calcium-transporting ATPase 1	0.642
1	46488737	46510905	lamina-associated polypeptide 2, isoform beta	0.568

1	46514910	46522801	phosphate carrier protein, mitochondrial	0.568
1	51257450	51266551	ras-related C3 botulinum toxin substrate 2	0.634
1	51269724	51274129	somatostatin receptor type 3	0.634
1	51336790	51344019	potassium channel tetramerization domain containing 17	0.634
1	51349989	51355027	Sulfurtransferase	0.634
1	51355166	51362344	thiosulfate sulfurtransferase	0.634
1	51419978	51430209	neutrophil cytosol factor 4	0.634
1	51455040	51463393	Parvalbumin, muscle	0.634
1	51573280	51580672	thioredoxin, mitochondrial	0.634
1	51598550	51666512	myosin-9	0.634
1	51759800	51835231	RNA binding protein, fox-1 homolog (C. elegans) 2	0.634
1	51849854	51853554	Myoglobin	0.634
1	51939574	51947830	DNA replication licensing factor MCM5	0.634
1	51949101	51955226	heme oxygenase 1	0.634
1	51962485	51983162	Target of Myb protein 1	0.634
1	51511551	51511715	TUC338	0.634
1	52524419	52799322	glycosyltransferase-like protein LARGE1	0.562
1	59065375	59100295	dynamamin-1-like protein	0.655
1	60438890	60496703	beta-1,4-N-acetyl-galactosaminyl transferase 3	0.529
1	63429485	63435977	microsomal glutathione S-transferase 1	0.601
1	66735234	66851127	alpha-N-acetylneuraminide alpha-2,8-sialyltransferase	0.621
1	68357089	68442009	liprin-beta-1	0.580
1	68516162	68549653	ADP-ribosylation factor GTPase-activating protein 3	0.580
1	68556334	68619317	protein kinase C and casein kinase substrate in neurons protein 2 isoform 1	0.580
1	68626823	68645266	tubulin tyrosine ligase-like family, member 1	0.580
1	68667862	68672968	malonyl CoA:ACP acyltransferase (mitochondrial)	0.580
1	68683782	68704548	tubulin--tyrosine ligase-like protein 12	0.580
1	68715574	68928375	signal peptide, CUB domain, EGF-like 1	0.580
1	68833800	68833975	TUC338	0.580
1	69852304	69938056	proline-rich protein 5	0.551

1	70002408	70079769	rho GTPase-activating protein 8	0.551
1	70098157	70154426	PHD finger protein 21B	0.551
1	72902806	73148067	fatty acyl CoA reductase 2	0.737
1	84610640	84660808	interphotoreceptor matrix proteoglycan 2 precursor	0.640
1	84665305	84703930	SUMO1/sentrin specific peptidase 7	0.640
1	84714811	84724364	PEST proteolytic signal-containing nuclear protein	0.640
1	84747544	84751604	ribosomal protein L24	0.640
1	84799655	84816004	NF-kappa-B inhibitor zeta	0.640
1	87878151	87933199	pleckstrin homology-like domain, family B, member 2	0.569
1	91358735	91424437	prostaglandin F2 receptor inhibitor	0.551
1	1E+08	1E+08	neural cell adhesion molecule 2	0.587
1	1.08E+08	1.08E+08	Down syndrome cell adhesion molecule	0.599
1	1.14E+08	1.15E+08	dystrophin	0.599
1	1.17E+08	1.17E+08	DNA polymerase	0.672
1	1.17E+08	1.18E+08	phosphate cytidyltransferase 1, choline, beta	0.672
1	1.17E+08	1.17E+08	Small Cajal body specific RNA 24	0.672
1	1.19E+08	1.2E+08	SH3 domain-containing kinase-binding protein 1	0.510
1	1.24E+08	1.24E+08	chloride channel, voltage-sensitive 4	0.575
1	1.45E+08	1.45E+08	UDP-glucose:glycoprotein glucosyltransferase 2 precursor	0.514
1	1.47E+08	1.47E+08	glypican 5	0.656
1	1.49E+08	1.49E+08	SLIT and NTRK-like family, member 5	0.821
1	1.52E+08	1.52E+08	NEDD4 family-interacting protein 2	0.931
1	1.52E+08	1.52E+08	RNA binding motif protein 26	0.931
1	1.52E+08	1.52E+08	protein sprouty homolog 2	0.931
1	1.54E+08	1.54E+08	ubiquitin carboxyl-terminal hydrolase isozyme L3	0.539
1	1.54E+08	1.54E+08	TBC1 domain family, member 4	0.539
1	1.55E+08	1.55E+08	Kruppel-like factor 12	0.539
1	1.62E+08	1.62E+08	diaphanous-related formin 3	0.623
1	1.64E+08	1.64E+08	Small nucleolar RNA U2-30	0.633
1	1.64E+08	1.64E+08	Small nucleolar RNA U2-19	0.633

1	1.65E+08	1.65E+08	von Willebrand factor A domain containing 8	0.683
1	1.66E+08	1.66E+08	diacylglycerol kinase, eta	0.683
1	1.67E+08	1.67E+08	family with sequence similarity 194, member B	0.600
1	1.67E+08	1.67E+08	Spermatid-associated protein	0.600
1	1.67E+08	1.67E+08	siah E3 ubiquitin protein ligase family member 3	0.600
1	1.67E+08	1.67E+08	plastin-2	0.600
1	1.67E+08	1.67E+08	leucine rich repeat containing 63	0.600
1	1.67E+08	1.67E+08	KIAA0226-like	0.600
1	1.68E+08	1.68E+08	esterase D	0.600
1	1.68E+08	1.68E+08	5-hydroxytryptamine (serotonin) receptor 2A, G protein-coupled	0.600
1	1.68E+08	1.68E+08	succinate-CoA ligase, ADP-forming, beta subunit	0.600
1	1.68E+08	1.68E+08	integral membrane protein 2B	0.600
1	1.68E+08	1.68E+08	retinoblastoma-associated protein	0.600
1	1.68E+08	1.68E+08	regulator of chromosome condensation (RCC1) and BTB (POZ) domain containing protein 2	0.600
1	1.68E+08	1.68E+08	fibronectin type-III domain-containing protein 3a	0.600
1	1.68E+08	1.68E+08	motilin receptor	0.600
1	1.68E+08	1.69E+08	calcium binding protein 39-like	0.600
1	1.75E+08	1.75E+08	microtubule associated tumor suppressor candidate 2	0.549
1	1.76E+08	1.76E+08	cyclin-dependent kinase 8	0.566
1	1.76E+08	1.76E+08	ring finger protein (C3H2C3 type) 6	0.566
1	1.76E+08	1.76E+08	ATPase, aminophospholipid transporter, class I, type 8A, member 2	0.566
1	1.77E+08	1.77E+08	spastic ataxia of Charlevoix-Saguenay (sacsin)	0.581
1	1.78E+08	1.78E+08	glia-activating factor	0.581
1	1.85E+08	1.85E+08	solute carrier family 36 (proton/amino acid symporter), member 4	0.741
1	1.91E+08	1.92E+08	teneurin transmembrane protein 4	0.711
1	1.92E+08	1.92E+08	asparaginyl-tRNA synthetase 2, mitochondrial (putative)	0.711
1	1.93E+08	1.93E+08	tsukushin precursor	0.593
2	5408261	5613834	sodium channel, voltage-gated, type V, alpha subunit	0.561
2	13816140	13922505	neuropilin-1 precursor	0.600
2	13975831	14017232	integrin beta-1 precursor	0.600

2	13771061	13771230	TUC338	0.600
2	19881822	19979217	ras suppressor protein 1	0.581
2	24256193	24345252	calcium-binding mitochondrial carrier protein Aralar2	0.525
2	24450646	24457181	split hand/foot malformation (ectrodactyly) type 1	0.525
2	45255770	45389575	cytoplasmic linker associated protein 2	0.535
2	45413332	45443733	programmed cell death 6-interacting protein	0.535
2	50484818	50543299	cyclin-dependent kinase 13	0.751
2	50564486	50571264	M-phase specific PLK1 interacting protein	0.751
2	57910351	57932198	glycosylphosphatidylinositol specific phospholipase D1	0.632
2	62603034	62615535	phosphatase and actin regulator 1	0.531
2	67611323	67673626	myosin light chain kinase family, member 4	0.542
2	67719974	67729598	serpin B6	0.542
2	67730365	67739883	Heterochromatin-associated protein MENT	0.542
2	67745615	67751998	Heterochromatin-associated protein MENT	0.542
2	67753130	67763712	serpin peptidase inhibitor, clade B (ovalbumin), member 2	0.542
2	67771785	67779357	Ovalbumin	0.542
2	67790408	67796318	ovalbumin-related protein Y	0.542
2	74276764	74466274	Cadherin; Uncharacterized protein	0.632
2	76311201	76496830	trio Rho guanine nucleotide exchange factor	0.518
2	78393973	78403910	T-complex protein 1 subunit epsilon	0.614
2	78404319	78411897	family with sequence similarity 173, member B	0.614
2	79220949	79424359	adenylate cyclase 2 (brain)	0.541
2	80447666	80505627	von Willebrand factor C domain containing 2	0.633
2	80510980	80537096	Zona pellucida-binding protein 1	0.633
2	80612647	80685641	DNA-binding protein Ikaros	0.633
2	80708843	80754977	dopa decarboxylase (aromatic L-amino acid decarboxylase)	0.633
2	83099424	83462516	formin homology 2 domain containing 3	0.566
2	84812789	85025689	molybdenum cofactor sulfurase	0.699
2	86065381	86068294	iroquois homeobox 4	0.766
2	97144112	97156128	cell death activator CIDE-A	0.550

2	1.03E+08	1.03E+08	RIO kinase 3	0.559
2	1.03E+08	1.03E+08	Niemann-Pick disease, type C1	0.559
2	1.03E+08	1.03E+08	ankyrin repeat domain 29	0.559
2	1.03E+08	1.03E+08	laminin, alpha 3	0.559
2	1.03E+08	1.03E+08	Oxysterol-binding protein	0.559
2	1.08E+08	1.08E+08	U6 spliceosomal RNA	0.553
2	1.1E+08	1.1E+08	V-type proton ATPase subunit H	0.614
2	1.1E+08	1.1E+08	Regulator of G-protein signaling 20	0.614
2	1.1E+08	1.1E+08	transcription elongation factor A protein 1	0.614
2	1.11E+08	1.11E+08	tyrosine-protein kinase Lyn	0.529
2	1.17E+08	1.17E+08	telomeric repeat-binding factor 1	0.523
2	1.23E+08	1.23E+08	cyclic nucleotide gated channel beta 3	0.611
2	1.24E+08	1.24E+08	nibrin	0.532
2	1.24E+08	1.24E+08	Calbindin	0.532
2	1.27E+08	1.27E+08	lysosomal protein transmembrane 4 beta	0.523
2	1.28E+08	1.28E+08	vacuolar protein sorting 13 homolog B (yeast)	0.537
2	1.28E+08	1.28E+08	cytochrome c oxidase subunit 6C	0.537
2	1.37E+08	1.37E+08	hyaluronan synthase 2	0.579
2	1.47E+08	1.47E+08	t-SNARE domain containing 1	0.530
3	8094160	8384451	anaplastic lymphoma receptor tyrosine kinase	0.519
3	9521292	9539167	protein pellino homolog 1	0.560
3	13302980	13394073	1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase beta-4	0.628
3	20511715	20538253	N-lysine methyltransferase SMYD2	0.580
3	28093815	28285437	dishevelled associated activator of morphogenesis 2	0.716
3	28650945	28730284	glucagon-like peptide 1 receptor precursor	0.716
3	28737986	28830043	dynein, axonemal, heavy chain 8	0.716
3	28867771	28979903	BTB/POZ domain-containing protein 9	0.716
3	29337956	29424515	MAM domain-containing glycosylphosphatidylinositol anchor protein 1 precursor	0.716
3	29519203	29541046	FtsJ methyltransferase domain containing 2	0.716
3	29557966	29574363	probable alanyl-tRNA synthetase, mitochondrial	0.716

3	29217044	29217179	TUC338	0.716
3	40939403	41033678	SPARC related modular calcium binding 2	0.671
3	41121124	41158394	sulfotransferase	0.671
3	41160297	41172875	dishevelled-binding antagonist of beta-catenin 2	0.671
3	41393868	41474285	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 4	0.671
3	41687479	41708127	unc-93 homolog A (C. elegans)	0.671
3	41711697	41713292	tubulin tyrosine ligase-like family, member 2	0.671
3	41759132	41766064	C-C chemokine receptor type 6	0.671
3	41783071	41803951	FGFR1 oncogene partner	0.671
3	41810099	41831299	ribonuclease T2 precursor	0.671
3	41958446	42114412	ribosomal protein S6 kinase, 90kDa, polypeptide 2	0.671
3	42131326	42141404	brain protein 44-like protein	0.671
3	42233586	42241528	brachyury protein	0.671
3	42463951	42626252	phosphodiesterase 10A	0.671
3	43765827	44445298	parkinson protein 2, E3 ubiquitin protein ligase (parkin)	0.750
3	44773338	44826366	cation-independent mannose-6-phosphate receptor precursor	0.750
3	44874173	44881975	T-complex protein 1 subunit alpha	0.750
3	44881987	44889927	acetyl-CoA acetyltransferase, cytosolic	0.750
3	44923214	44929994	superoxide dismutase	0.750
3	45071689	45111718	fibronectin type III domain containing 1	0.750
3	45215648	45566922	utrophin	0.750
3	45769623	45811385	epilepsy, progressive myoclonus type 2A, Lafora disease (laforin)	0.750
3	45868769	45921436	SNF2 histone linker PHD RING helicase, E3 ubiquitin protein ligase	0.750
3	45937157	46118743	Glutamate receptor metabotropic 1 isoform f transcript variant 1	0.750
3	46182574	46256838	androglobin	0.750
3	46388675	46489008	syntaxin binding protein 5 (tomosyn)	0.750
3	46522593	46647011	sterile alpha motif domain containing 5	0.750
3	47153562	47250156	uronyl-2-sulfotransferase	0.750
3	47394890	47423136	peptidylprolyl isomerase (cyclophilin)-like 4	0.750
3	47425648	47442269	uncharacterized protein C6orf72 homolog precursor	0.750

3	47446107	47459848	Katanin p60 ATPase-containing subunit A1	0.750
3	47503537	47537193	Protein-L-isoaspartate(D-aspartate) O-methyltransferase	0.750
3	47538737	47606787	low density lipoprotein receptor-related protein 11	0.750
3	44874859	44874995	Small nucleolar RNA SNORA29	0.750
3	44880145	44880277	Small nucleolar RNA SNORA20	0.750
3	48276571	48431441	estrogen receptor	0.758
3	48447032	48720659	spectrin repeat containing, nuclear envelope 1	0.758
3	48776284	48795822	VIP peptides isoform 2 preproprotein	0.758
3	48910153	48981998	Regulator of G-protein signaling 17	0.758
3	50465764	50754522	AT rich interactive domain 1B (SWI1-like)	0.731
3	53248977	53250435	cbp/p300-interacting transactivator 2	0.511
3	54485370	54505293	BCL2-associated transcription factor 1	0.555
3	58029862	58422557	protein tyrosine phosphatase, receptor type, K	0.530
3	63229377	63243518	RWD domain containing 1	0.673
3	63261261	63269158	uncharacterized protein LOC769904	0.673
3	63276143	63280172	family with sequence similarity 26, member F	0.673
3	63431647	63439612	Collagen alpha-1(X) chain	0.673
3	63472387	63519299	fyn-related kinase	0.673
3	64239389	64261685	histone deacetylase 2	0.673
3	65392000	65429033	tyrosine-protein kinase Fyn	0.577
3	65542811	65609587	REV3-like, polymerase (DNA directed), zeta, catalytic subunit	0.577
3	65721376	65726791	general transcription factor 3C polypeptide 6	0.577
3	65744041	65761269	S-adenosylmethionine decarboxylase proenzyme	0.577
3	66033229	66074352	pre-mRNA-processing factor 17	0.577
3	66201896	66268774	polyphosphoinositide phosphatase precursor	0.577
3	66269578	66325155	adenylate kinase 9	0.577
3	67757131	67863760	Blimp-1	0.575
3	73318964	73462488	Ephrin type-A receptor 7	0.667
3	74210444	74210526	U6 spliceosomal RNA	0.667
3	79802794	79856460	Interphotoreceptor matrix proteoglycan 1	0.675

3	79860207	79930603	myosin-VI	0.675
3	79966253	79995357	SUMO1/sentrin specific peptidase 6	0.675
3	80071280	80164378	filamin A interacting protein 1	0.675
3	80180051	80193545	cell cycle control protein 50A	0.675
3	80197965	80201301	cytochrome c oxidase subunit 7A2, mitochondrial	0.675
3	80212182	80312375	collagen alpha-1(XII) chain precursor	0.675
3	80775681	80855396	CD109 molecule	0.675
3	81337238	81638081	regulating synaptic membrane exocytosis 1	0.578
3	86044771	86130756	DNA primase large subunit	0.540
3	96729661	96737554	PQ loop repeat containing 3	0.721
3	96746492	96802174	Rho-associated, coiled-coil containing protein kinase 2	0.721
3	96852537	96861622	transcription factor E2F6	0.721
3	96906122	96965158	growth regulation by estrogen in breast cancer 1	0.721
3	96971362	97044067	Lipin 1; Uncharacterized protein	0.721
3	97427885	97448910	tribbles homolog 2	0.721
3	98343307	98504175	neuroblastoma amplified sequence	0.721
3	98505120	98526381	ATP-dependent RNA helicase DDX1	0.721
3	98778414	98780948	N-myc proto-oncogene protein	0.721
3	99739837	99814889	Visinin-like protein 1	0.551
3	1.04E+08	1.05E+08	putative Polycomb group protein ASXL2	0.536
4	32207746	32286859	doublecortin-like kinase 2	0.799
4	46222167	46249662	Phosphatidate cytidyltransferase	0.553
4	49571259	49794271	solute carrier family 4, sodium bicarbonate cotransporter, member 4	0.699
4	49817085	49822899	vitamin D-binding protein precursor	0.699
4	49832925	49847032	neuropeptide FF receptor 2	0.699
4	49890856	49977356	ADAM metallopeptidase with thrombospondin type 1 motif, 3	0.699
4	50153707	50226185	ankyrin repeat domain 17	0.699
4	50253145	50269174	serum albumin precursor	0.699
4	50342296	50345374	interleukin-8 precursor	0.699
4	50355001	50359957	Interleukin-8	0.699

4	50470435	50669744	ephrin type-A receptor 5 precursor	0.699
4	50510247	50510326	Small nucleolar RNA R12	0.699
4	55856553	55899875	2-hydroxyacylsphingosine 1-beta-galactosyltransferase precursor	0.551
4	56052213	56091725	arylsulfatase family, member J	0.551
4	58208189	58447378	netrin receptor UNC5C precursor	0.534
4	59910288	60049717	protein phosphatase 3, catalytic subunit, alpha isozyme	0.616
4	69781392	69796531	death domain containing 1	0.537
4	69799893	69923066	ArfGAP with RhoGAP domain, ankyrin repeat and PH domain 2	0.537
4	75401346	75452145	Ligand-dependent nuclear receptor corepressor-like protein	0.732
4	75480300	75503309	non-SMC condensin I complex, subunit G	0.732
4	81411667	81420730	alpha-2-macroglobulin receptor-associated protein precursor	0.584
4	81465866	81491136	docking protein 7	0.584
4	81495986	81536120	HGF activator	0.584
4	81642832	81659465	Myb/SANT-like DNA-binding domain containing 1	0.584
4	81699702	81774162	huntingtin	0.584
4	81780294	81810730	G protein-coupled receptor kinase 4	0.584
4	81861191	81918087	alpha-adducin	0.584
4	81924388	81959922	SH3 domain-binding protein 2	0.584
4	82006422	82013592	TNFAIP3-interacting protein 2	0.584
4	82049672	82097810	family with sequence similarity 193, member A	0.584
4	82143274	82159327	RING finger protein 4	0.584
4	82408395	82444435	max dimerization protein 4	0.584
4	82459166	82544586	polymerase (DNA directed) nu	0.584
4	81902213	81902370	U1 spliceosomal RNA	0.584
5	10010798	10123603	inscuteable homolog (Drosophila)	0.626
5	12238926	12267404	receptor-type tyrosine-protein phosphatase eta	0.755
5	13148583	13163279	Insulin-like growth factor II	0.537
5	13377709	13388547	39S ribosomal protein L23, mitochondrial	0.537
5	13389730	13416288	Troponin T, fast skeletal muscle isoforms	0.537
5	13434000	13472383	lymphocyte-specific protein 1	0.537

5	13473898	13476632	Troponin I, fast skeletal muscle	0.537
5	17230853	17528495	SH3 and multiple ankyrin repeat domains 2	0.553
5	17708714	17717820	rhombotin-2	0.553
5	17763945	17795688	caprin-1	0.553
5	22947434	22948426	midkine precursor	0.550
5	22949353	22992334	diacylglycerol kinase zeta	0.550
5	23071172	23192606	PHD finger protein 21A	0.550
5	23200237	23205076	glycosyltransferase-like protein LARGE2	0.550
5	23227971	23241314	mitogen-activated protein kinase 8 interacting protein 1	0.550
5	23244457	23264618	cryptochrome-2	0.550
5	23265765	23269277	GDP-fucose transporter 1	0.550
5	22944471	22945943	muscarinic acetylcholine receptor M4	0.550
5	23959882	23993960	inositol-trisphosphate 3-kinase A	0.631
5	24865079	24890722	vam6/Vps39-like protein	0.648
5	24915661	24936853	neutral alpha-glucosidase C	0.648
5	24937025	24960748	calpain-3	0.648
5	25000359	25015379	synaptosomal-associated protein 23	0.648
5	25024800	25029487	HAUS augmin-like complex subunit 2	0.648
5	26489235	26559259	pecanex homolog (Drosophila)	0.583
5	26586981	26631624	mitogen-activated protein kinase kinase kinase 9	0.583
5	33101816	33216460	serine/threonine-protein kinase D1	0.517
5	34375148	34959900	neuronal PAS domain protein 3	0.680
5	35188533	35193787	E2F-associated phosphoprotein	0.680
5	35195367	35218018	sorting nexin-6	0.680
5	35241369	35244169	Cofilin-2	0.680
5	35253580	35299381	bromodomain adjacent to zinc finger domain, 1A	0.680
5	34864564	34864741	TUC338	0.680
5	34463947	34464039	Vault RNA	0.680
5	38541886	38599635	serine palmitoyltransferase 2	0.573
5	38619465	38632326	alkylated DNA repair protein alkB homolog 1	0.573

5	38634500	38651966	SNW domain containing 1	0.573
5	38657380	38732532	uncharacterized aarF domain-containing protein kinase 1 precursor	0.573
5	39826229	39837879	Iodothyronine deiodinase	0.634
5	40042540	40090213	thyrotropin receptor isoform 1 precursor	0.634
5	40099534	40119234	transcription initiation factor IIA subunit 1	0.634
5	40144828	40210981	stonin 2	0.634
5	42319730	42344911	spermatogenesis associated 7	0.612
5	48067831	48083159	cholesterol 24-hydroxylase	0.595
5	48159648	48241305	echinoderm microtubule associated protein like 1	0.595
5	48312771	48378821	ena/VASP-like protein	0.595
5	48418077	48431424	transcriptional repressor protein YY1	0.595
5	48456828	48465791	solute carrier family 25, member 47	0.595
5	48490625	48546715	WD repeat domain 25	0.595
5	48566385	48715173	brain-enriched guanylate kinase-associated	0.595
5	53874253	53882060	small nuclear RNA activating complex, polypeptide 1, 43kDa	0.603
5	53884053	53914606	hypoxia-inducible factor 1-alpha	0.603
5	58202924	58265575	DDHD domain containing 1	0.622
5	58454254	58457967	Bone morphogenetic protein 4	0.622
6	8142505	8170935	cyclin-dependent kinase 1	0.519
6	11510433	11530618	proactivator polypeptide precursor	0.628
6	11543130	11545869	carbohydrate sulfotransferase 3	0.628
6	11556862	11568617	Histone H2A	0.628
6	12928166	13365708	calcium-activated potassium channel subunit alpha-1	0.546
6	19439617	19465235	tankyrase-2	0.564
6	20586643	20593197	cyclin J	0.614
6	20638215	20730717	B-cell linker protein	0.614
6	20754954	20843012	DNA nucleotidylexotransferase	0.614
6	21051932	21053666	VENT homeobox	0.614
6	21074071	21135637	kinase non-catalytic C-lobe domain (KIND) containing 1	0.614
7	3031382	3433912	receptor tyrosine-protein kinase erbB-4	0.517

7	4722132	4740447	melanophilin	0.543
7	16404276	16412287	secernin 3	0.623
7	16412437	16433377	Corepressor interacting with RBPJ 1	0.623
7	16463674	16548896	Obg-like ATPase 1	0.623
7	17199467	17208239	pyruvate dehydrogenase kinase, isozyme 1	0.639
7	17214612	17252865	integrin alpha-6 precursor	0.639
7	17770145	17966292	myosin IIIB	0.547
7	18583602	18668725	serine threonine kinase 39	0.652
7	21293508	21321944	Integrin beta	0.594
7	21327981	21363749	secretory phospholipase A2 receptor precursor	0.594
7	26451247	26646791	adenylate cyclase type 5	0.624
7	26653371	26673051	protein-tyrosine phosphatase-like member B	0.624
7	26674970	26859021	myosin light chain kinase, smooth muscle	0.624
7	30459507	30701723	thrombospondin, type I, domain containing 7B	0.539
7	31350097	31932431	low density lipoprotein receptor-related protein 1	0.549
7	35234890	35264450	G protein-activated inward rectifier potassium channel 1	0.525
8	822750	960453	netrin G1	0.799
8	987129	1134223	guanine nucleotide exchange factor VAV3	0.799
8	2165461	2220563	serine/threonine-protein kinase Nek7	0.532
8	5890359	5957040	acyl-CoA binding domain containing 6	0.637
9	2069219	2087633	kelch-like 6	0.531
9	5411909	5436836	retinol binding protein 1, cellular	0.731
9	5566977	5861817	calsyntenin 2	0.731
9	7800341	7823434	plasminogen activator inhibitor type 1, member 2 precursor	0.563
9	12913816	12999648	fibroblast growth factor 12	0.629
9	13178354	13185135	urotensin-2B precursor	0.629
9	13186472	13199826	osteocrin precursor	0.629
9	20419761	20464371	cholinesterase precursor	0.605
9	23218003	23220395	profilin-2	0.780
9	23226057	23254253	E3 ubiquitin-protein ligase RNF13	0.780

9	23254409	23259438	COMM domain containing 2	0.780
9	23264511	23304671	WW domain containing transcription regulator 1	0.780
9	23359472	23377519	ceruloplasmin (ferroxidase)	0.780
9	23410228	23425241	glycogenin-1	0.780
10	3103512	3116708	neuronal acetylcholine receptor subunit beta-4 precursor	0.511
10	3121889	3127878	Neuronal acetylcholine receptor subunit alpha-3	0.511
10	3952464	4034731	vacuolar protein sorting 13 homolog C (<i>S. cerevisiae</i>)	0.511
10	5072623	5098236	Kruppel-like factor 13	0.666
10	5146745	5227651	transient receptor potential cation channel, subfamily M, member 1	0.666
10	6434758	6619897	disintegrin and metalloproteinase domain-containing protein 10 precursor	0.671
10	6480269	6521283	lipase, hepatic	0.671
10	6572777	6596733	aquaporin 9	0.671
10	6604818	6661741	Retinal dehydrogenase 2	0.671
10	6816944	6857906	cingulin-like 1	0.671
10	6903270	7058903	transcription factor 12	0.671
10	19265373	19502893	CTD small phosphatase-like protein 2	0.595
10	19310281	19330984	protein CASC4 precursor	0.595
11	4357663	4419746	RPGRIP1-like	0.540
11	4456387	4469147	AKT-interacting protein	0.540
11	10016612	10144234	carbohydrate (N-acetylgalactosamine 4-O) sulfotransferase 8	0.644
11	10168414	10216329	potassium channel tetramerization domain containing 15	0.644
11	10356455	10374076	protein LSM14 homolog A	0.644
11	10376830	10403785	KIAA0355	0.644
11	10450875	10471700	glucose-6-phosphate isomerase	0.644
11	10610357	10619189	SUMO-activating enzyme subunit 2	0.644
11	10624075	10629096	programmed cell death protein 2-like	0.644
11	10773808	10782445	carbonic anhydrase VII	0.644
11	10786610	10798981	NEDD8-activating enzyme E1 regulatory subunit	0.644
11	10817084	10841597	cytoplasmic dynein 1 light intermediate chain 2	0.644
11	10894386	10903372	CKLF-like MARVEL transmembrane domain-containing protein 3	0.644

11	10906480	10917656	thymidine kinase 2, mitochondrial	0.644
11	10927995	10964663	protein BEAN1	0.644
11	10982217	11011468	cadherin-5 precursor	0.644
11	11582884	11662192	cadherin-11 precursor	0.644
11	10763464	10765059	pyruvate dehydrogenase phosphatase catalytic subunit 2	0.644
11	12288497	12432361	cadherin-8	0.661
11	12638991	12639143	TUC338	0.661
11	18267773	18286192	transcription factor 25 (basic helix-loop-helix)	0.667
11	18290821	18292152	tubulin beta-4 chain	0.667
11	18293266	18296749	differentially expressed in FDCP 8 homolog (mouse)	0.667
11	18300555	18308190	growth arrest-specific 8	0.667
11	18308197	18309804	urate (hydroxyiso-) hydrolase, pseudogene	0.667
11	18310977	18316940	cadherin 3, type 1, P-cadherin (placental)	0.667
11	18317572	18326276	cadherin-1 precursor	0.667
11	18355336	18357463	hyaluronan synthase 3	0.667
11	18358802	18360418	CTF8, chromosome transmission fidelity factor 8 homolog (<i>S. cerevisiae</i>)	0.667
11	18365413	18370296	syntrophin, beta 2 (dystrophin-associated protein A1, 59kDa, basic component 2)	0.667
11	18378690	18380054	60S ribosome subunit biogenesis protein NIP7 homolog	0.667
11	18383995	18391771	Telomeric repeat-binding factor 2	0.667
11	18396032	18407915	outer mitochondrial membrane cytochrome b5	0.667
11	18415930	18474957	nuclear factor of activated T-cells 5	0.667
11	18482780	18484568	NAD(P)H dehydrogenase, quinone 1	0.667
11	18487655	18519315	NEDD4-like E3 ubiquitin-protein ligase WWP2	0.667
11	18520346	18526403	proteasome (prosome, macropain) 26S subunit, non-ATPase, 7	0.667
11	19150949	19161411	pre-mRNA-splicing factor ATP-dependent RNA helicase PRP16	0.667
11	18287877	18288821	melanocyte-stimulating hormone receptor	0.667
12	13983652	14275283	membrane associated guanylate kinase, WW and PDZ domain containing 1	0.559
12	18847535	19073767	glutamate receptor, metabotropic 7	0.581
13	4187413	4738485	teneurin-2 isoform 1	0.685
13	10737034	10764716	IL2-inducible T-cell kinase	0.565

13	13243833	13260270	glutamine-fructose-6-phosphate transaminase 2	0.528
13	13261655	13281786	Mitogen-activated protein kinase 9	0.528
13	16744797	16844189	Rho GTPase-activating protein 26	0.567
14	6602197	6621651	leucine carboxyl methyltransferase 1	0.598
15	2912110	3202073	syntaxin-2	0.595
15	3051055	3169587	G protein-coupled receptor 133	0.595
15	3179902	3184192	GTP-binding nuclear protein Ran	0.595
15	3029980	3030156	TUC338	0.595
15	4855484	4908313	dynein, axonemal, heavy chain 10	0.636
15	4909039	4924155	V-type proton ATPase 116 kDa subunit a isoform 2	0.636
15	4933001	4937788	general transcription factor IIH, polypeptide 3, 34kDa	0.636
15	4941748	4948314	ATP-dependent RNA helicase DDX55	0.636
15	4977536	4979234	small nuclear ribonucleoprotein 35kDa (U11/U12)	0.636
15	4986361	4990790	SET domain containing (lysine methyltransferase) 8	0.636
15	5002524	5026119	protein strawberry notch homolog 1	0.636
15	5038370	5051012	cyclin-dependent kinase 2-associated protein 1	0.636
15	5053460	5077681	M-phase phosphoprotein 9	0.636
15	5080304	5188058	phosphatidylinositol transfer protein, membrane-associated 2	0.636
15	5192449	5195746	ADP-ribosylation factor-like protein 6-interacting protein 4	0.636
15	5208507	5219304	ATP-binding cassette, sub-family B (MDR/TAP), member 9	0.636
15	5243010	5257347	huntingtin-interacting protein 1-related protein	0.636
15	5264075	5270199	Density-regulated protein	0.636
15	5297891	5339287	Sarcoplasmic/endoplasmic reticulum calcium ATPase 2	0.636
15	6301498	6347392	HECT domain containing E3 ubiquitin protein ligase 4	0.514
18	297153	334809	myosin, heavy chain 13, skeletal muscle	0.662
18	2569645	2666638	protoheme IX farnesyltransferase, mitochondrial	0.544
18	4721036	4751867	SAP30 binding protein	0.662
18	4750809	4787690	RecQ protein-like 5	0.662
18	4763901	4774954	uncharacterized protein LOC770371	0.662
18	6953318	6958961	importin subunit alpha-2	0.645

18	6970301	7017419	bromodomain PHD finger transcription factor	0.645
18	7017750	7029054	nucleolar protein 11	0.645
18	7205116	7244436	voltage-dependent calcium channel gamma-4 subunit	0.645
18	7895218	7917904	axin-2	0.598
18	7997936	8029708	regulator of G-protein signaling 9	0.598
18	8091453	8108190	arylsulfatase G	0.598
18	8136004	8149977	cAMP-dependent protein kinase type I-alpha regulatory subunit	0.598
18	8153051	8162773	family with sequence similarity 20, member A	0.598
18	8232456	8254284	ATP-binding cassette, sub-family A (ABC1), member 5	0.598
18	8260526	8295962	mitogen-activated protein kinase kinase 6	0.598
18	8467064	8473808	inward rectifier potassium channel 2	0.598
19	7382617	7394940	ribosomal protein S6 kinase beta-1	0.575
20	593577	597282	TBC/LysM-associated domain containing 2	0.667
20	597387	623826	SAM domain and HD domain-containing protein 1	0.667
20	626685	647924	retinoblastoma-like 1 (p107)	0.667
20	650631	698519	chromodomain helicase DNA binding protein 6	0.667
20	731978	793938	ral GTPase-activating protein subunit beta	0.667
20	835504	867279	NDRG family member 3	0.667
20	869594	872258	Src-like-adaptor 2	0.667
20	875509	927530	PHD finger protein 20	0.667
20	1049215	1303743	copine I	0.667
20	1135479	1137453	reactive oxygen species modulator 1	0.667
20	1137517	1148952	cysteine desulfurase, mitochondrial	0.667
20	1438852	1442860	growth/differentiation factor 5 precursor	0.667
20	1510312	1559445	ubiquinol-cytochrome c reductase complex chaperone	0.667
20	1565847	1590302	family with sequence similarity 83, member C	0.667
20	1591146	1598063	eukaryotic translation initiation factor 6	0.667
20	1601528	1644296	matrix metalloproteinase 24 (membrane-inserted)	0.667
20	1643850	1862123	adenosylhomocysteinase	0.667
20	1667567	1673056	dynein, light chain, roadblock-type 1	0.667

20	5699881	5712513	adenosine deaminase	0.757
20	5740430	5750933	serine incorporator 3 precursor	0.757
20	5748294	5755903	alpha-tocopherol transfer protein-like	0.757
20	5763173	5777781	hepatocyte nuclear factor 4-alpha	0.757
20	5792281	5795875	R3H domain containing-like	0.757
20	5837979	5845069	uncharacterized protein C20orf111 homolog	0.757
20	5847927	5855091	junctophilin 2	0.757
20	5895586	5918161	solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 3	0.757
20	5923593	5925045	TP53 regulating kinase	0.757
20	5928136	5935198	solute carrier family 2 (facilitated glucose transporter), member 10	0.757
20	6012484	6104467	eyes absent homolog 2	0.757
20	6203701	6257441	nuclear receptor coactivator 3	0.757
20	6529946	6608286	phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 1	0.757
20	6685428	6743411	ADP-ribosylation factor guanine nucleotide-exchange factor 2 (brefeldin A-inhibited)	0.757
20	6747113	6768662	CSE1 chromosome segregation 1-like (yeast)	0.757
20	6780571	6803177	double-stranded RNA-binding protein Staufien homolog 1	0.757
20	6994464	7004637	transglutaminase 3	0.757
20	7082081	7177518	phosphatase and actin regulator 3	0.757
20	7219136	7226342	family with sequence similarity 217, member B	0.757
20	7702268	8001028	cadherin-4 precursor	0.757
20	7216161	7216973	protein phosphatase 1, regulatory subunit 3D	0.757
20	6814040	6814131	Small nucleolar SNORD12/SNORD106	0.757
20	6811970	6812061	Small nucleolar SNORD12/SNORD106	0.757
20	6813048	6813139	Small nucleolar SNORD12/SNORD106	0.757
20	6814693	6814787	Small nucleolar SNORD12/SNORD106	0.757
20	8527860	8554223	solute carrier organic anion transporter family member 4A1	0.527
20	8575357	8620192	neurotensin receptor type 1	0.527
20	8689083	8720874	collagen alpha-3(IX) chain precursor	0.527
20	8779439	8785907	Glucose-induced degradation protein 8 homolog	0.527
20	8837210	8837872	class E basic helix-loop-helix protein 23	0.527

20	10874294	10878191	lysosomal protective protein precursor	0.510
20	10878671	10881926	phospholipid transfer protein precursor	0.510
20	10887208	10895373	PDX1 C-terminal inhibiting factor 1	0.510
21	3033463	3151837	arginine-glutamic acid dipeptide (RE) repeats	0.517
21	4679337	4732155	F-actin-capping protein subunit beta isoforms 1 and 2	0.634
21	4764694	4774114	Neuroblastoma suppressor of tumorigenicity 1	0.634
21	4776632	4780155	5-hydroxytryptamine receptor 6	0.634
21	4822545	4823109	ring finger protein 186	0.634
21	4825556	4833537	OTU domain containing 3	0.634
21	4835306	4836901	group IIE secretory phospholipase A2 precursor	0.634
21	4849821	4857034	ATP-dependent RNA helicase DDX19B	0.634
21	4890645	4891820	family with sequence similarity 43, member B	0.634
21	4893462	4897243	cytidine deaminase	0.634
21	4897971	4906221	PTEN induced putative kinase 1	0.634
21	4906433	4908768	Agmatinase, mitochondrial	0.634
21	4909535	4918231	dnaJ homolog subfamily C member 16 precursor	0.634
21	4918316	4924583	caspase 9, apoptosis-related cysteine peptidase	0.634
21	4925271	4927174	chymotrypsin C (caldecrin)	0.634
21	4931027	4938907	forkhead-associated (FHA) phosphopeptide binding domain 1	0.634
21	4965242	4973503	kazrin, periplakin interacting protein	0.634
21	5606164	5615523	methylenetetrahydrofolate reductase (NAD(P)H)	0.571
23	203721	213621	UBX domain protein 11	0.560
23	230940	237139	connector enhancer of kinase suppressor of Ras 1	0.560
23	861071	915914	human immunodeficiency virus type I enhancer binding protein 3	0.597
24	1073171	1109460	GIRK4; Uncharacterized protein	0.554
24	6163150	6165998	interleukin-18	0.543
24	6167375	6171382	succinate dehydrogenase	0.543
24	6176797	6179439	PIH1 domain containing 2	0.543
25	1156086	1174496	coatamer subunit alpha	0.524
25	1174614	1186654	nicastrin precursor	0.524

26	3399930	3416570	CTTNBP2 N-terminal like	0.518
26	3436365	3447136	protein Wnt-2b	0.518
26	3455410	3474542	Suppressor of tumorigenicity 7 protein-like	0.518
26	3474674	3483306	F-actin-capping protein subunit alpha-1	0.518
26	3486369	3492328	putative helicase MOV-10	0.518
26	3492792	3497763	Rho-related GTP-binding protein RhoC	0.518
26	3499167	3506175	protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1J	0.518
26	3552668	3567609	monocarboxylate transporter 1	0.518
26	3631292	3656668	membrane-associated guanylate kinase, WW and PDZ domain-containing protein 3	0.518
Z	22034805	22073103	PAP associated domain containing 4	0.802
Z	25582286	25666831	dedicator of cytokinesis 8	1.000
Z	25808415	25864441	doublesex- and mab-3-related transcription factor 1	1.000
Z	25902813	25905855	doublesex and mab-3 related transcription factor 2	1.000
Z	26195620	26294557	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2	1.000
Z	26415507	26430542	very low density lipoprotein receptor	1.000
Z	26488495	26512565	KIAA0020	1.000
Z	26531633	26586078	regulatory factor X, 3 (influences HLA class II expression)	1.000
Z	26708083	26866140	GLIS family zinc finger 3	1.000
Z	35753341	35806349	retinal dehydrogenase 1	0.858
Z	35881518	35899231	annexin A1	0.858
Z	39039875	39114050	transducin-like enhancer of split 1 (E(sp1) homolog, Drosophila)	0.952
Z	39574349	39615592	RAS and EF-hand domain containing	0.952
Z	39667818	39812156	FERM domain containing 3	0.952
Z	39900490	39924774	kinesin family member 27	0.952
Z	39936510	39954264	Heterogeneous nuclear ribonucleoprotein K	0.952
Z	39954655	39958510	recQ-mediated genome instability protein 1	0.952
Z	38576413	38576570	U1 spliceosomal RNA	0.952
Z	42249104	42257660	uncharacterized protein LOC427470	1.000
Z	42279475	42284756	Cryptic protein	1.000
Z	42326478	42396311	leucine rich repeat containing 2	1.000

Z	43031150	43106716	Spindlin-Z	1.000
Z	43127717	43128550	nucleoredoxin-like 2	1.000
Z	43300148	43343693	sphingosine-1-phosphate receptor 3	1.000
Z	43311888	43377895	SHC (Src homology 2 domain containing) transforming protein 3	1.000
Z	43412815	43443779	SECIS binding protein 2	1.000
Z	43446316	43483379	Semaphorin-4D	1.000
Z	43589019	43592114	growth arrest and DNA damage-inducible protein GADD45 gamma	1.000
Z	43922919	43975109	Tyrosine-protein kinase SYK	1.000
Z	44067508	44176409	methylglutaconyl-CoA hydratase, mitochondrial isoform 1	1.000
Z	44325334	44479158	tyrosine-protein kinase transmembrane receptor ROR2 precursor	1.000
Z	44617583	44658144	CDC42 small effector 2	1.000
Z	44758626	44762622	histidine triad nucleotide-binding protein 1	1.000
Z	44957617	45108982	chondroitin sulfate synthase 3	1.000
Z	45135087	45136473	KIAA1024-like	1.000
Z	45523478	45562834	YTH domain containing 2	1.000
Z	45574534	45769715	mutated in colorectal cancers	1.000
Z	45777089	45804230	decapping mRNA 2	1.000
Z	45811319	45828704	receptor expression-enhancing protein 5	1.000
Z	45832341	45839741	signal recognition particle 19kDa	1.000
Z	45850647	45906194	adenomatous polyposis coli	1.000
Z	46011143	46145593	erythrocyte membrane protein band 4.1 like 4A	1.000
Z	46263610	46283078	neuronal protein 3.1	1.000
Z	44205924	44207300	nuclear factor interleukin-3-regulated protein	1.000
Z	46144006	46144137	Small nucleolar RNA SNORA13	1.000
Z	45526269	45526443	U2 spliceosomal RNA	1.000
Z	54549996	54642132	ATP-binding cassette sub-family A member 1	0.825
Z	54741875	54804427	solute carrier family 44 (choline transporter), member 1	0.825
Z	54832501	54860934	fibronectin type III and SPRY domain containing 1-like	0.825
Z	54866069	54882250	fukutin	0.825
Z	57916145	58180255	Protein FAM172A	0.885

Z	62344745	62440821	Hyaluronan and proteoglycan link protein 1	0.794
Z	63574950	63597283	creatine kinase S-type, mitochondrial	0.926
Z	63601953	63729018	Ras protein-specific guanine nucleotide-releasing factor 2	0.926
Z	63759855	63876936	mutS homolog 3 (E. coli)	0.926
Z	63876645	63893410	dihydrofolate reductase	0.926
Z	63984743	63988783	adenylate kinase isoenzyme 6	0.926
Z	63988631	64006407	cell cycle checkpoint protein RAD17	0.926
Z	65644355	65663759	A-kinase anchor protein 2	0.869
Z	65673926	65679018	solute carrier family 46, member 2	0.869
Z	65685568	65734943	sorting nexin family member 30	0.869
Z	65744965	65755449	SOSS complex subunit C	0.869
