

## Appendix 1.

## List of genes related to apoptosis and growth

Probe Name	Log2Ratio	GeneSymbol	Fuction
A_44_P314219	6.744387	Rassf4	negative regulation of progression through cell cycle
A_43_P14871	6.7338963	Ltbp1	transforming growth factor beta receptor signaling pathway
A_42_P674000	5.16244	Gpc3	negative regulation of cell proliferation and growth
A_42_P640277	5.028121	Enc1	nervous system development
A_44_P393551	4.7984447	Gja1	apoptosis
A_42_P468712	4.756047	Tacstd2	visual perception;cell proliferation
A_42_P638620	4.5839396	Lcn2	apoptosis;inflammatory response;immune response
A_43_P11621	4.536335	Cd44	regulation of cell growth;cell adhesion
A_44_P172645	4.5284233	Dclk1	nervous system development
A_44_P513385	4.4669333	Dab2	negative regulation of cell growth
A_44_P359684	4.3001375	Nfkbiz_predicted	regulation of transcription;inflammatory response
A_44_P337351	4.252652	Cxcl12	germ cell development;brain development; motor axon guidance;neuron migration
A_44_P405843	4.129399	Tns4	apoptosis
A_42_P750683	3.9879255	Cyr61	regulation of cell growth and proliferation
A_43_P12500	3.9013782	Nell2	cell adhesion;regulation of growth
A_44_P1011716	3.871498	Adora2b	cellular defense response
A_44_P463745	3.728138	Tnfrsf6	apoptosis
A_44_P363009	3.654679	Scin	negative regulation of cell proliferation; positive regulation of apoptosis
A_44_P551842	3.5942688	Abtb2	regulation of cell growth
A_43_P12059	3.5805016	Rnase4	negative regulation of progression through cell cycle
A_42_P695401	3.5629022	Ccl2	positive regulation of endothelial cell proliferation
A_42_P458530	3.461441	Ripk3	induction of apoptosis
A_44_P203549	3.4290798	Egln3	apoptosis;regulation of cell proliferation)
A_42_P629321	3.3985956	Wisp2	negative regulation of cell proliferation and growth
A_43_P16836	3.3838937	Cblc	negative regulation of epidermal growth factor receptor activity
A_44_P1007347	3.3095102	Tgm2	induction of apoptosis
A_44_P521711	3.2896326	Map2k6	apoptosis;cell cycle arrest
A_42_P594613	3.2749135	Dusp6	regulation of progression through cell cycle;cell differentiation
A_44_P188280	3.2189684	Adrb2	signal transduction
A_44_P255236	3.1667595	Acta1	cell growth
A_44_P179904	3.110036	Sh2d2a	cell proliferation;regulation of T cell activation
A_42_P773636	3.0861518	Tnfsf13	immunoglobulin mediated immune response
A_42_P816427	3.073186	Wisp1	regulation of cell growth
A_44_P179814	3.0590248	Gas6	regulation of cell growth and proliferation
A_44_P126021	2.9684098	Igf1	regulation of translation;anti-apoptosis
A_44_P557210	2.9259648	Myo1b	nervous system development
A_43_P11462	2.8809242	Ets1	regulation of transcription; negative regulation of cell proliferation
A_44_P306602	2.692625	Irf1	regulation of transcription
A_43_P15259	2.6257181	Tnfrsf1a	NK T cell proliferation
A_43_P15590	2.604971	Fmod	transforming growth factor beta receptor complex assembly
A_44_P487021	2.590344	Rasl1b	negative regulation of cell growth
A_44_P302944	2.5783997	Pem	transcription;germ cell programmed cell death

A_44_P547185	2.545961	Igfbp2	regulation of cell growth
A_42_P727191	2.5049305	Csrp2	cell proliferation;cell growth;cell differentiation;
A_44_P233742	2.5025373	Tspan5	cell proliferation
A_44_P472996	2.4950964	Anxa5	anti-apoptosis;signal transduction
A_44_P515211	2.479199	Tnfsf15	negative regulation of endothelial cell proliferation
A_42_P538400	2.4327905	Ntrk2	nervous system development
A_44_P210568	2.3770704	Fn1	cell morphogenesis;anti-apoptosis
A_44_P365286	2.3700423	Aldh1a1	positive regulation of apoptosis
A_44_P212850	2.3682413	Fgf2	regulation of retinal programmed cell death
A_42_P666951	2.3657951	Tnfrsf5	apoptosis
A_44_P426181	2.3564062	Hyal1	cell death;negative regulation of cell proliferation
A_43_P21564	2.3452177	Trp53inp1	induction of apoptosis;response to stress
A_44_P317600	2.3438654	Nppa	negative regulation of cell growth
A_44_P556319	2.2866383	Fgf18	positive regulation of cell proliferation
A_44_P236187	2.2809563	Lgals7	induction of apoptosis;cell differentiation
A_43_P12571	2.2430637	Jak2	regulation of progression through cell cycle
A_44_P381917	2.2374964	Sphk1	protein kinase C activation;brain development; positive regulation of cell proliferation
A_44_P353515	2.234532	Pmp22	cell cycle arrest; nervous system development; negative regulation of cell proliferation;cell differentiation
A_42_P660129	2.2324328	Casp12	regulation of apoptosis
A_44_P125025	2.1980457	Tgfb3	regulation of progression through cell cycle; signal transduction
A_44_P261444	2.1749591	Nfkbia	apoptosis;regulation of cell proliferation
A_43_P15261	2.16815	Nr3c2	regulation of transcription;regulation of cell proliferation
A_44_P1011369	2.133515	Gldn	nervous system development;cell differentiation
A_42_P768978	2.122745	Nrp1	signal transduction;nervous system development; axon guidance
A_44_P306439	2.114265	Fcgr3a	NK T cell proliferation;immune response
A_44_P441181	2.0964806	Osr2	positive regulation of cell proliferation
A_44_P1004840	2.0314093	Tnfsf9	negative regulation of cell proliferation; positive regulation of apoptosis
A_44_P999845	2.0165682	Sh3kbp1	regulation of apoptosis
A_44_P1004959	-2.023962	Thoc1	regulation of apoptosis
A_42_P768355	-2.0546398	Bid3	regulation of apoptosis
A_44_P402445	-2.106493	Nefh	nervous system development; intermediate filament cytoskeleton organization and biogenesis
A_44_P471901	-2.164624	Rod1	regulation of cell differentiation
A_43_P12152	-2.1760864	Robo1	nervous system development;axon guidance;cell differentiation; positive regulation of axonogenesis
A_42_P497225	-2.2228603	Mfge8	positive regulation of cell proliferation
A_44_P384017	-2.3799214	Sncg	nervous system development
A_44_P496447	-2.4626775	Ntf3	anti-apoptosis;nervous system development
A_43_P14838	-2.4860082	Cart1	regulation of transcription;multicellular organismal development;

A_43_P12613	-2.4973125	Apln	brain development positive regulation of cell proliferation
A_42_P822588	-2.5434804	Alox15	negative regulation of signal transduction
A_44_P477903	-2.643774	Apbb3	negative regulation of apoptosis
A_44_P620106	-2.7512941	Tgfbi	transforming growth factor, beta induced
A_43_P12779	-2.7937784	Nrn1	nervous system development
A_42_P524577	-2.9685376	Rtn1	signal transduction;neuron differentiation
A_44_P549494	-2.9954195	Cd74	defense response;immune response
A_44_P336226	-3.070511	Crmp1	nervous system development
A_44_P1008888	-3.0834715	Mt3	cell proliferation
A_44_P191632	-3.127862	Odz2	central nervous system development
A_42_P771373	-3.4718704	Npy	calcium ion transport;cell motility;neuropeptide signaling pathway;synaptic transmission
A_44_P398060	-3.4752207	Nrcam	axonal fasciculation;synaptogenesis; central nervous system development
A_43_P14310	-3.6084843	Nr2f1	regulation of transcription;signal transduction; nervous system development;forebrain development
A_44_P1005082	-3.6169999	Brinp2	nervous system development; negative regulation of progression through cell cycle
A_44_P381686	-3.772136	Dbh	cytokine production;synaptic transmission;visual learning; regulation of cell proliferation
A_43_P10290	-3.811354	Tspan1	cell proliferation
A_43_P15228	-3.8408766	Ptprr	nervous system development
A_44_P1038178	-3.859357	Eef1a2	anti-apoptosis
A_42_P791436	-3.9708564	Gfra2	transmembrane receptor protein tyrosine kinase signaling pathway;nervous system development
A_44_P219026	-4.0214543	Bdnf	anti-apoptosis;nervous system development
A_44_P139697	-4.0957546	Atp2b2	metabolic process;neuron differentiation
A_42_P837568	-4.1572046	L1cam	nervous system development;axon guidance;cell differentiation
A_42_P583113	-4.4822083	Adra2c	negative regulation of neurotransmitter secretion
A_44_P1042234	-4.537505	Stmn3	microtubule depolymerization;intracellular signaling cascade; nervous system development
A_44_P421375	-4.695032	Inexa	nervous system development;cell differentiation; tissue regeneration
A_44_P161220	-4.475573	Dbccr1	cell death
A_44_P421582	-4.576626	Tagln3	central nervous system development
A_44_P512255	-5.139747	Rgs4	positive regulation of endothelial cell proliferation
A_44_P536333	-5.6212234	Grin1	anti-apoptosis;nervous system development; negative regulation of neuroblast proliferation
A_44_P477889	-5.904091	Nefl	intermediate filament cytoskeleton organization and biogenesis
A_44_P371172	-7.2719755	Snap25	neurotransmitter uptake;synaptic transmission; synaptic vesicle docking during exocytosis
A_44_P224516	-7.587451	Scg2	regulation of apoptosis