

Table SI: List of DEGs obtained by comparing NSCL/P and control cells

AffyID	Symbol	Entrez Gene Name	Fold change	P-value
8112045	* * ESM1	endothelial cell-specific molecule 1	-5.330	±2.83 0.000
7922976	* * PTGS2	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)	-3.709	±2.11 0.000
8067233	* * PMEPA1	prostate transmembrane protein, androgen induced 1	-3.259	±2.01 0.000
8142981	* * PODXL	podocalyxin-like	-2.920	±1.89 0.000
8116780	* * DSP	desmoplakin	-2.736	±1.8 0.000
8100798	* * SULT1B1	sulfotransferase family, cytosolic, 1B, member 1	-2.660	±2.37 0.000
7915612	* * PTCH2	patched 2	-2.598	±1.51 0.000
8124527	* * HIST1H1B	histone cluster 1, H1b	-2.587	±1.51 0.000
7973067	* * PNP	purine nucleoside phosphorylase	-2.578	±1.45 0.000
8151871	* * CCNE2	cyclin E2	-2.577	±1.44 0.000
8091243	* * PCOLCE2 (includes EG:2657	procollagen C-endopeptidase enhancer 2	-2.568	±1.58 0.000
7924461	* *		-2.567	±1.54 0.000
7939237	* * C11orf41	chromosome 11 open reading frame 41	-2.485	±1.39 0.000
8059376	* * SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2	-2.463	±1.56 0.000
8105267	* * ITGA2	integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor)	-2.440	±1.69 0.000
8045688	* * TNFAIP6	tumor necrosis factor, alpha-induced protein 6	-2.436	±1.45 0.000
7952785	* * OPCML	opioid binding protein/cell adhesion molecule-like	-2.431	±1.67 0.000
7948902	* * SNHG1	small nucleolar RNA host gene 1 (non-protein coding)	-2.418	±1.49 0.000
7939215	* * C11orf41	chromosome 11 open reading frame 41	-2.410	±1.34 0.000
8180255	* *		-2.404	±1.33 0.000
8180321	* *		-2.404	±1.33 0.000
8145793	* * SNORD13	small nucleolar RNA, C/D box 13	-2.383	±1.45 0.000
7936968	* * ADAM12	ADAM metalloproteinase domain 12	-2.339	±1.67 0.000
7999754	* * XYLT1	xylosyltransferase I	-2.317	±1.43 0.000
7981084	* * SERPINA9	serpin peptidase inhibitor, clade A (alpha-1 antitrypsin, antitrypsin), member 9	-2.307	±1.28 0.000
7974689	* * DACT1	dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis)	-2.304	±1.47 0.000
8086752	* *		-2.279	±1.5 0.001
8124388	* * HIST1H3A (includes others)	histone cluster 1, H3a	-2.273	±1.29 0.001
7970793	* * SLC46A3	solute carrier family 46, member 3	-2.271	±1.47 0.000
7909568	* * DTL	denticleless E3 ubiquitin protein ligase homolog (Drosophila)	-2.268	±1.35 0.000
7897801	* * RNU5E-1	RNA, U5E small nuclear 1	-2.240	±1.32 0.001
7996260	* *		-2.233	±1.63 0.000
8007071	* * CDC6 (includes EG:23834)	cell division cycle 6 homolog (S. cerevisiae)	-2.208	±1.31 0.001
7976812	* * SNORD113-4	small nucleolar RNA, C/D box 113-4	-2.195	±1.61 0.001
8154233	* * CD274	CD274 molecule	-2.184	±1.49 0.001
8156043	* * PSAT1	phosphoserine aminotransferase 1	-2.151	±1.28 0.001
7940147	* * FAM111B	family with sequence similarity 111, member B	-2.129	±1.24 0.001
7953218	* * RAD51AP1	RAD51 associated protein 1	-2.120	±1.26 0.001
8126798	* * GPR116	G protein-coupled receptor 116	-2.119	±2.36 0.000
7919642	* * HIST2H2AB	histone cluster 2, H2ab	-2.102	±1.2 0.002
8124391	* * HIST1H2AB/HIST1H2AE	histone cluster 1, H2ae	-2.098	±1.24 0.002
8077499	* * LINC00312	long intergenic non-protein coding RNA 312	-2.086	±1.51 0.001
7926259	* * MCM10 (includes EG:307126	minichromosome maintenance complex component 10	-2.078	±1.2 0.002
8160431	* * MIR31HG	MIR31 host gene (non-protein coding)	-2.060	±1.13 0.002
7950391	* * PGM2L1	phosphoglucomutase 2-like 1	-2.060	±1.17 0.002
7943158	* * SCARNA9	small Cajal body-specific RNA 9	-2.060	±1.27 0.002
7981978	* * SNORD116-15	small nucleolar RNA, C/D box 116-15	-2.054	±1.23 0.002
8035838	* * ZNF724P	zinc finger protein 724, pseudogene	-2.037	±1.15 0.002
8092640	* * RFC4	replication factor C (activator 1) 4, 37kDa	-2.022	±1.08 0.002
8080847	* * C3orf14	chromosome 3 open reading frame 14	-2.018	±1.11 0.002
8112376	* * CENPK	centromere protein K	-2.018	±1.16 0.003
7981982	* * SNRPN	small nuclear ribonucleoprotein polypeptide N	-2.004	±1.2 0.003
7981986	* * SNRPN	small nuclear ribonucleoprotein polypeptide N	-2.004	±1.2 0.003
8083876	* * SKI1	SKI-like oncogene	-2.002	±1.25 0.002
7927631	* * DKK1	dickkopf 1 homolog (Xenopus laevis)	-2.002	±1.26 0.003
7922162	* * SLC19A2	solute carrier family 19 (thiamine transporter), member 2	-2.001	±1.26 0.001
7998722	* * SNORD60	small nucleolar RNA, C/D box 60	-1.997	±1.13 0.003
7906919	* * RGS4	regulator of G-protein signaling 4	-1.989	±1.76 0.002
7929438	* * HELLS	helicase, lymphoid-specific	-1.976	±1.18 0.004
7981976	* * SNORD116-14	small nucleolar RNA, C/D box 116-14	-1.967	±1.25 0.004
8071212	* * CDC45	cell division cycle 45 homolog (S. cerevisiae)	-1.962	±1.08 0.004
7910997	* * EXO1 (includes EG:26909)	exonuclease 1	-1.952	±1.14 0.004
8061471	* * GINS1	GINS complex subunit 1 (Psf1 homolog)	-1.945	±1.12 0.004
8138527	* * STEAP1B	STEAP family member 1B	-1.939	±1.2 0.004
8030978	* * ZNF845	zinc finger protein 845	-1.938	±1.23 0.004
7919269	* * GSTM2	glutathione S-transferase mu 2 (muscle)	-1.937	±1.09 0.004
7919349	* * GSTM2	glutathione S-transferase mu 2 (muscle)	-1.937	±1.09 0.004
8124385	* * HIST1H4A (includes others)	histone cluster 1, H4a	-1.937	±1.11 0.004
7930980	* * PPAPDC1A	phosphatidic acid phosphatase type 2 domain containing 1A	-1.934	±1.35 0.003
8140534	* * SEMA3C	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3C	-1.933	±1.41 0.003
8004144	* * MIS12	MIS12, MIND kinetochore complex component, homolog (S. pombe)	-1.930	±1.05 0.004
7952339	* * SNORD14C	small nucleolar RNA, C/D box 14C	-1.929	±1.21 0.005
8081241	* * C3orf26	chromosome 3 open reading frame 26	-1.927	±1.13 0.004
7995354	* * ORC6 (includes EG:23594)	origin recognition complex, subunit 6	-1.923	±1.08 0.004
8127989	* * SNORD50B	small nucleolar RNA, C/D box 50B	-1.923	±1.1 0.005
7948904	* * SNORD28	small nucleolar RNA, C/D box 28	-1.921	±1.28 0.005
7986068	* * BLM	Bloom syndrome, RecQ helicase-like	-1.920	±1.08 0.004
7973896	* * GSTM2	glutathione S-transferase mu 2 (muscle)	-1.918	±1.05 0.005
7978568	* * GSTM2	glutathione S-transferase mu 2 (muscle)	-1.918	±1.05 0.005
7915926	* * STIL	SCL/TAL1 interrupting locus	-1.915	±1.15 0.004
7908072	* * LAMC2	laminin, gamma 2	-1.914	±1.34 0.004
8141150	* * ASNS	asparagine synthetase (glutamine-hydrolyzing)	-1.913	±1.11 0.004
7979710	* * PLEK2	pleckstrin 2	-1.913	±1.12 0.004
7964271	* * PRIM1	primase, DNA, polypeptide 1 (49kDa)	-1.909	±1.11 0.004
8015268	* * KRT34	keratin 34	-1.900	±1.1 0.006
8095574	* * DCK	deoxycytidine kinase	-1.899	±1.07 0.005
7964733	* * RPSAP52	ribosomal protein SA pseudogene 52	-1.899	±1.22 0.005
8025402	* * ANGPTL4	angiopoietin-like 4	-1.898	±1.06 0.004
8022674	* * CDH2	cadherin 2, type 1, N-cadherin (neuronal)	-1.895	±1.26 0.003
7990345	* * SEMA7A	semaphorin 7A, GPI membrane anchor (John Milton Hagen blood group)	-1.883	±1.37 0.002

8142975	°	mir-29	microRNA 29a	-1.883	±1.31	0.005
7981990	°			-1.881	±1.27	0.005
8102787	°			-1.878	±1.05	0.006
8041867	°	* MSH2	mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli)	-1.872	±1.05	0.006
7965094	°	* E2F7	E2F transcription factor 7	-1.868	±1.08	0.005
8052382	°	* FANCL	Fanconi anemia, complementation group L	-1.860	±1.06	0.007
8079153	°	* ABHD5	abhydrolase domain containing 5	-1.853	±1.02	0.007
7982792	°	* RAD51	RAD51 homolog (S. cerevisiae)	-1.851	±1.03	0.007
7898375	°	* GSTM2	glutathione S-transferase mu 2 (muscle)	-1.851	±1.03	0.007
7898411	°	* GSTM2	glutathione S-transferase mu 2 (muscle)	-1.851	±1.03	0.007
7912800	°	* GSTM2	glutathione S-transferase mu 2 (muscle)	-1.851	±1.03	0.007
7912850	°	* GSTM2	glutathione S-transferase mu 2 (muscle)	-1.851	±1.03	0.007
7919576	°	* GSTM2	glutathione S-transferase mu 2 (muscle)	-1.851	±1.03	0.007
7974882	°	* SYT16	synaptotagmin XVI	-1.839	±1.13	0.005
8144036	°	* XRCC2	X-ray repair complementing defective repair in Chinese hamster cells 2	-1.832	±1.04	0.007
7976621	°	* VRK1	vaccinia related kinase 1	-1.831	±1	0.007
8139632	°	* FIGNL1	figetin-like 1	-1.824	±1.06	0.008
8097449	°	* PCDH10	protocadherin 10	-1.823	±1.64	0.005
8003298	°	* SLC7A5	solute carrier family 7 (amino acid transporter light chain, L system), member 5	-1.819	±1.09	0.007
8006187	°	* ATAD5	ATPase family, AAA domain containing 5	-1.816	±1.11	0.007
7974337	°			-1.814	±1.14	0.000
8086880	°	* CDC25A	cell division cycle 25 homolog A (S. pombe)	-1.807	±0.99	0.009
8015769	°	* BRCA1	breast cancer 1, early onset	-1.802	±1.08	0.009
7983306	°	* WDR76	WD repeat domain 76	-1.801	±1.09	0.009
8127987	°	* SNORD50A	small nucleolar RNA, C/D box 50A	-1.801	±1.15	0.009
8117368	°	* HIST1H4A (includes others)	histone cluster 1, H4a	-1.800	±1.13	0.007
8109830	°	* CCDC99	coiled-coil domain containing 99	-1.798	±1.11	0.009
8132843	°	* HAUS6	HAUS augmin-like complex, subunit 6	-1.797	±1.08	0.007
8055672	°	* MMADHC	methylmalonic aciduria (cobalamin deficiency) cblD type, with homocystinuria	-1.794	±1.05	0.010
7934979	°	* ANKRD1	ankyrin repeat domain 1 (cardiac muscle)	-1.790	±2.18	0.000
8114287	°	* SPOCK1	sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1	-1.784	±1.08	0.007
8152703	°	* FBXO32	F-box protein 32	-1.784	±1.26	0.006
7917771	°	* DNTTIP2	deoxynucleotidyltransferase, terminal, interacting protein 2	-1.782	±1	0.000
8017262	°	* BRIP1	BRCA1 interacting protein C-terminal helicase 1	-1.779	±1.11	0.008
7914878	°	* CLSPN	claspin	-1.773	±1.12	0.010
8152582	°	* DSCC1	defective in sister chromatid cohesion 1 homolog (S. cerevisiae)	-1.772	±0.97	0.000
8053797	°	* ANKRD36C	ankyrin repeat domain 36C	-1.768	±1.06	0.000
7922846	°	* FAM129A	family with sequence similarity 129, member A	-1.763	±1.06	0.009
8124537	°	* HIST1H3A (includes others)	histone cluster 1, H3a	-1.756	±1.05	0.000
7917976	°	* SASS6	spindle assembly 6 homolog (C. elegans)	-1.754	±0.99	0.000
8115490	°	* ADAM19	ADAM metalloproteinase domain 19	-1.751	±1.32	0.004
7997381	°	* CENPN	centromere protein N	-1.748	±0.99	0.000
8067029	°	* KCNG1 (includes EG:241794)	potassium voltage-gated channel, subfamily G, member 1	-1.746	±1.28	0.005
7981953	°			-1.746	±0.99	0.000
7981966	°			-1.746	±0.99	0.000
8034512	°	* SNORD41	small nucleolar RNA, C/D box 41	-1.737	±1.03	0.000
8151684	°	* MMP16	matrix metalloproteinase 16 (membrane-inserted)	-1.721	±1.68	0.003
8054217	°	* TXNDC9	thioredoxin domain containing 9	-1.719	±0.94	0.000
8001197	°	* NETO2	neuropilin (NRP) and tolloid (TLL)-like 2	-1.715	±1.12	0.009
8042830	°	* MTHFD2	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methylenetetrahydrofolate cyclohydr	-1.711	±0.96	0.000
7905088	°	* HIST2H2AC	histone cluster 2, H2ac	-1.709	±0.96	0.000
7970763	°	* FLT1	fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)	-1.708	±1.31	0.008
8066074	°	* DSN1 (includes EG:1000029)	DSN1, MIND kinetochore complex component, homolog (S. cerevisiae)	-1.701	±0.98	0.000
8042588	°	* MPHOSPH10	M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein)	-1.700	±0.96	0.000
7962579	°	* AMIGO2	adhesion molecule with Ig-like domain 2	-1.699	±1.19	0.008
7971077	°	* POSTN	periostin, osteoblast specific factor	-1.691	±1.67	0.005
7968351	°	* C13orf33	chromosome 13 open reading frame 33	-1.688	±1.4	0.006
7989915	°	* TIPIN	TIMELESS interacting protein	-1.688	±0.95	0.000
7950933	°	* NOX4	NADPH oxidase 4	-1.688	±1.48	0.007
7936322	°	* GPAM	glycerol-3-phosphate acyltransferase, mitochondrial	-1.664	±0.93	0.000
7917182	°	* ELTD1	EGF, latrophilin and seven transmembrane domain containing 1	-1.642	±1.35	0.007
8039484	°	* IL11	interleukin 11	-1.622	±1.35	0.008
8145361	°	* NEFM	neurofilament, medium polypeptide	-1.388	±2.23	0.003
7951271	°	* MMP1 (includes EG:300339)	matrix metalloproteinase 1 (interstitial collagenase)	-1.228	±2.5	0.004
7985786	°	* ACAN	aggrecan	-1.204	±2.3	0.006
8112971	°	* HAPLN1	hyaluronan and proteoglycan link protein 1	-0.939	±2.16	0.009
7976567	°	* BDKRB1	bradykinin receptor B1	1.129	±2.02	0.009
8045533	°			1.354	±1.46	0.007
8015179	°			1.384	±1.4	0.002
8019588	°			1.384	±1.4	0.002
7903214	°	* LPPR4	lipid phosphate phosphatase-related protein type 4	1.391	±2.01	0.001
8176719	°	* EIF1AY	eukaryotic translation initiation factor 1A, Y-linked	1.412	±2.09	0.002
8176375	°	* RPS4Y1	ribosomal protein S4, Y-linked 1	1.431	±2.26	0.001
7999909	°	* GPRC5B	G protein-coupled receptor, family C, group 5, member B	1.434	±1.38	0.009
7938225	°	* OLFML1	olfactomedin-like 1	1.441	±1.04	0.009
7969202	°			1.464	±1	0.009
8176655	°	* NLGN4Y	neuroligin 4, Y-linked	1.466	±1.7	0.003
8037240	°	* PSG1	pregnancy specific beta-1-glycoprotein 1	1.480	±1.28	0.009
8013521	°			1.482	±1.08	0.009
8097288	°	* FAT4	FAT tumor suppressor homolog 4 (Drosophila)	1.487	±1.07	0.009
7934185	°	* C10orf54	chromosome 10 open reading frame 54	1.487	±0.87	0.008
7950005	°	* MRGPRF	MAS-related GPR, member F	1.494	±1.14	0.007
8068361	°	* SLC5A3	solute carrier family 5 (sodium/myo-inositol cotransporter), member 3	1.512	±0.97	0.009
8104758	°	* NPR3 (includes EG:18162)	natriuretic peptide receptor C/guanylate cyclase C (atrionatriuretic peptide receptor C)	1.518	±1.16	0.005
7903358	°	* VCAM1	vascular cell adhesion molecule 1	1.528	±1.56	0.009
8058664	°			1.536	±1.05	0.006
8037657	°	* DMPK	dystrophin myotonic-protein kinase	1.563	±0.9	0.004
7896748	°			1.570	±1.89	0.001
7911335	°			1.571	±1.59	0.002
8165694	°			1.571	±1.59	0.002
8176578	°	* USP9Y	ubiquitin specific peptidase 9, Y-linked	1.578	±1.99	0.001
7975076	°	* HSPA2	heat shock 70kDa protein 2	1.588	±1.23	0.005
8150962	°	* TOX	thymocyte selection-associated high mobility group box	1.635	±1.39	0.002
7932254	°	* ITGA8	integrin, alpha 8	1.637	±1.06	0.004

8045835	GALNT5	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 5 (GalNAc-T5)	1.639	±1.38	0.002
8176624	DDX3Y	DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, Y-linked	1.644	±2.36	0.000
7926875	BAMBI	BMP and activin membrane-bound inhibitor homolog (<i>Xenopus laevis</i>)	1.651	±1.02	0.003
8141140	DLX5	distal-less homeobox 5	1.660	±1.25	0.003
8013523			1.662	±1.43	0.002
7962058	TMTC1	transmembrane and tetratricopeptide repeat containing 1	1.665	±1.66	0.002
7896750			1.669	±1.55	0.002
7984364	SMAD3	SMAD family member 3	1.689	±0.93	0.002
8156358			1.691	±1.9	0.001
8171297	MID1 (includes EG:10033095 midline 1 (Opitz/BBB syndrome))		1.691	±1.2	0.003
8113120			1.701	±1.22	0.002
8165707			1.701	±1.22	0.002
8129666	SLC2A12	solute carrier family 2 (facilitated glucose transporter), member 12	1.703	±1.04	0.002
8112668	GCNT4	glucosaminyl (N-acetyl) transferase 4, core 2	1.708	±1	0.002
7950810	SYTL2	synaptotagmin-like 2	1.718	±0.99	0.002
8095110	KIT	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog	1.722	±1.22	0.002
7911343			1.727	±1.38	0.002
8165703			1.727	±1.38	0.002
7970565			1.731	±1.06	0.002
8008965			1.738	±1.13	0.002
7962559	SLC38A4	solute carrier family 38, member 4	1.738	±1.23	0.002
8052355	EFEMP1	EGF containing fibulin-like extracellular matrix protein 1	1.759	±2.09	0.001
8013987			1.824	±1.21	0.001
8160346	PTPLAD2	protein tyrosine phosphatase-like A domain containing 2	1.831	±1.2	0.002
7899615	SERINC2	serine incorporator 2	1.843	±1.13	0.001
8165663			1.863	±1.74	0.001
7911337			1.865	±1.92	0.000
7973871			1.865	±1.92	0.000
8165696			1.865	±1.92	0.000
8102831	MGARP	mitochondria-localized glutamic acid-rich protein	1.874	±1.21	0.001
8165709			1.914	±1.26	0.001
7911339			1.952	±2.12	0.000
8165698			1.952	±2.12	0.000
8045804			2.012	±1.98	0.000
8102532	PDE5A	phosphodiesterase 5A, cGMP-specific	2.024	±1.4	0.001
8104746	NPR3 (includes EG:18162)	natriuretic peptide receptor C/guanylate cyclase C (atriuretic peptide receptor C)	2.032	±1.38	0.000
7985317	KIAA1199	KIAA1199	2.088	±1.9	0.000
8057677	SLC40A1	solute carrier family 40 (iron-regulated transporter), member 1	2.169	±1.51	0.000
8100310			2.221	±1.88	0.000
7933204	C10orf10	chromosome 10 open reading frame 10	2.301	±1.43	0.000
8051583	CYP1B1	cytochrome P450, family 1, subfamily B, polypeptide 1	2.318	±1.84	0.000
8083887	CLDN11	claudin 11	2.430	±1.6	0.000
7912537	DHRS3	dehydrogenase/reductase (SDR family) member 3	2.441	±1.43	0.000
8006433	CCL2	chemokine (C-C motif) ligand 2	2.913	±2.11	0.000

(*) Genes selected by SAM; (*) Genes selected by Rank Products