

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1655595	SERPINE2	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 2 (SERPINE2), mRNA.	NM_006216.2	9.78	14.98	5.2	52.48
ILMN_1744381	SERPINE1	serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1 (SERPINE1), mRNA.	NM_000602.1	7	12.62	5.62	45.75
ILMN_1776936	ANKRD38	ankyrin repeat domain 38 (ANKRD38), mRNA.	NM_181712.3	6.76	11.93	5.17	43.93
ILMN_1705750	TGM2	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM2), transcript variant 1, mRNA.	NM_004613.2	5.99	12.15	6.16	42.86
ILMN_1667295	VASN	vasorin (VASN), mRNA.	NM_138440.2	6.46	10.08	3.62	39.39
ILMN_2174711	C21orf129	chromosome 21 open reading frame 129 (C21orf129), mRNA.	NM_152506.1	10.49	6.59	-3.9	38.91
ILMN_2115125	CTGF	connective tissue growth factor (CTGF), mRNA.	NM_001901.2	7.09	11.22	4.13	36.59
ILMN_1777233	E2F2	E2F transcription factor 2 (E2F2), mRNA.	NM_004091.2	10.11	6.48	-3.63	35.99
ILMN_1713995	SCNN1A	sodium channel, nonvoltage-gated 1 alpha (SCNN1A), mRNA.	NM_001038.4	12.46	8.75	-3.71	34.98
ILMN_169829	CTGF	connective tissue growth factor (CTGF), mRNA.	NM_001901.1	7.18	11.38	4.2	34.98
ILMN_1769201	ELF3	E74-like factor 3 (ets domain transcription factor, epithelial-specific) (ELF3), mRNA.	NM_004433.3	10.44	6.3	-4.14	34.92
ILMN_1892643		RST11549 Athersys RAGE Library cDNA, mRNA sequence		6.82	10.64	3.82	34.68
ILMN_1698666	CST6	cystatin E/M (CST6), mRNA.	NM_001323.2	6.53	9.92	3.39	34.33
ILMN_1659610	TJP3	tight junction protein 3 (zona occludens 3) (TJP3), mRNA.	NM_014428.1	10.99	7.12	-3.87	34.11
ILMN_1728799	FBP1	fructose-1,6-bisphosphatase 1 (FBP1), mRNA.	NM_000507.2	10.98	7.79	-3.18	33.89
ILMN_1748591	ODC1	ornithine decarboxylase 1 (ODC1), mRNA.	NM_002539.1	8.53	11.51	2.98	33.87
ILMN_2072568	CLDN8	claudin 8 (CLDN8), mRNA.	NM_199328.1	11.48	7.75	-3.74	33.03
ILMN_1701424	LAMC2	laminin, gamma 2 (LAMC2), transcript variant 1, mRNA.	NM_005562.1	10.83	13.69	2.86	33.03
ILMN_1779228	CDH2	cadherin 2, type 1, N-cadherin (neuronal) (CDH2), mRNA.	NM_001792.2	9.68	12.25	2.57	32.7
ILMN_1653028	COL4A1	collagen, type IV, alpha 1 (COL4A1), mRNA.	NM_001845.4	9.29	12.03	2.75	31.81
ILMN_2399300	NAV2	neuron navigator 2 (NAV2), transcript variant 2, mRNA.	NM_145117.3	7.86	11.07	3.2	30.79
ILMN_2309156	PMEP1	prostate transmembrane protein, androgen induced 1 (PMEP1), transcript variant 2, mRNA.	NM_199169.1	10.23	12.85	2.62	30.79
ILMN_1716687	TPM1	tropomyosin 1 (alpha) (TPM1), transcript variant 7, mRNA.	NM_001018020.1	11.11	13.55	2.44	30.63
ILMN_1713829	PTGES	prostaglandin E synthase (PTGES), mRNA.	NM_004878.3	12.11	8.82	-3.29	30.57
ILMN_1810942	CYP3A5	cytochrome P450, family 3, subfamily A, polypeptide 5 (CYP3A5), mRNA.	NM_000777.2	9.51	5.8	-3.71	30.37
ILMN_1766650	FOXA1	forkhead box A1 (FOXA1), mRNA.	NM_004496.2	11.83	8.65	-3.18	29.63
ILMN_1730670	FSTL3	folliculin-like 3 (secreted glycoprotein) (FSTL3), mRNA.	NM_005860.2	7.86	10.79	2.93	29.63
ILMN_1697733	CST6	PREDICTED: cystatin E/M (CST6), mRNA.	XM_001129442.1	6.31	9.44	3.13	29.26
ILMN_2111237	MN1	meningioma (disrupted in balanced translocation) 1 (MN1), mRNA.	NM_002430.2	8.12	10.61	2.49	29.27
ILMN_1700081	FST	folliculin (FST), transcript variant FST344, mRNA.	NM_013409.1	11.11	13.92	2.81	28.89
ILMN_1812073	ATP6V1B1	ATPase, H+ transporting, lysosomal 56/58kDa, V1 subunit B1 (Renal tubular acidosis with deafness) (ATP6V1B1), mRNA.	NM_001692.3	12.37	7.91	-4.46	28.81
ILMN_1735157	GALNT12	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 12 (GalNAc-T12) (GALNT12), mRNA.	NM_024642.3	10.63	8.33	-2.3	28.44
ILMN_1685339	TPM1	tropomyosin 1 (alpha) (TPM1), transcript variant 6, mRNA.	NM_001018008.1	8.19	11.02	2.84	28.43
ILMN_1673566	ADAMT51	ADAM metalloproteinase with thrombospondin type 1 motif, 1 (ADAMT51), mRNA.	NM_006988.3	7.71	10.91	3.2	28.24
ILMN_1712896	FST	folliculin (FST), transcript variant FST317, mRNA.	NM_006350.2	8.36	11.59	3.22	27.73
ILMN_1741847	MMP10	matrix metalloproteinase 10 (stromelysin 2) (MMP10), mRNA.	NM_002425.1	9.98	12.78	2.8	27.61
ILMN_1669046	FOXQ1	forkhead box Q1 (FOXQ1), mRNA.	NM_033260.3	13.32	10.8	-2.52	27.59
ILMN_1682775	EDN1	endothelin 1 (EDN1), mRNA.	NM_001955.2	7.7	10.49	2.8	27.44
ILMN_1717990	CALD1	caldesmon 1 (CALD1), transcript variant 1, mRNA.	NM_033138.2	6.55	9.18	2.63	27.38
ILMN_1714433	MARCKS1	MARCKS-like 1 (MARCKS1), mRNA.	NM_023009.4	8.88	10.76	1.87	27.26
ILMN_2146761	FABP5	fatty acid binding protein 5 (psoriasis-associated) (FABP5), mRNA.	NM_001444.1	8.04	10.95	2.91	27.24
ILMN_1712475	HS3ST2	heparan sulfate (glucosamine) 3-O-sulfotransferase 2 (HS3ST2), mRNA.	NM_006043.1	8.83	11.5	2.67	27.19
ILMN_2188722	GLS	glutaminase (GLS), mRNA.	NM_014905.2	10.09	12.29	2.2	27.11
ILMN_1737184	CDC47	cell division cycle associated 7 (CDC47), transcript variant 1, mRNA.	NM_031942.4	11.03	8.38	-2.65	27.02
ILMN_1719695	NFKBIZ	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, zeta (NFKBIZ), transcript variant 2, mRNA.	NM_001005474.1	11.59	9.28	-2.31	27.02
ILMN_1702501	RPS6KA2	ribosomal protein S6 kinase, 90kDa, polypeptide 2 (RPS6KA2), transcript variant 2, mRNA.	NM_001006932.1	8.46	10.53	2.07	26.77
ILMN_2278152	TPM1	tropomyosin 1 (alpha) (TPM1), transcript variant 6, mRNA.	NM_001018008.1	8.22	11.04	2.83	26.76
ILMN_1753439	RPTN	PREDICTED: repetin (RPTN), mRNA.	XM_937200.2	8.84	6.06	-2.78	26.62
ILMN_1811470	PLEK2	pleckstrin 2 (PLEK2), mRNA.	NM_016445.1	8.46	11.11	2.65	26.62
ILMN_1778668	TAGLN	transgelin (TAGLN), transcript variant 2, mRNA.	NM_003186.3	8.75	11.73	2.98	26.6
ILMN_1864372		BX097797 Soares pregnant uterus NBHPU cDNA clone IMAGp998N171164, mRNA sequence		7.15	10.01	2.86	26.57
ILMN_1653934	LOC650517	PREDICTED: hypothetical LOC650517 (LOC650517), mRNA.	XR_019109.1	10.13	13.16	3.03	26.5
ILMN_1672148	AKR1B10	aldo-keto reductase family 1, member B10 (aldose reductase) (AKR1B10), mRNA.	NM_020299.3	10.06	7.26	-2.8	26.48
ILMN_1651950	TPST1	tyrosylprotein sulfotransferase 1 (TPST1), mRNA.	NM_003596.2	8.29	10.17	1.88	26.48
ILMN_2365465	XBP1	X-box binding protein 1 (XBP1), transcript variant 2, mRNA.	NM_001079539.1	9.98	11.77	1.79	26.48
ILMN_1746676	CLDN8	claudin 8 (CLDN8), mRNA.	NM_199328.1	10.09	7.02	-3.06	26.27
ILMN_1706505	COL5A1	collagen, type V, alpha 1 (COL5A1), mRNA.	NM_000093.3	7.39	10.12	2.73	26.08
ILMN_2203891	SMAD7	SMAD family member 7 (SMAD7), mRNA.	NM_005904.2	7.8	9.75	1.95	26.05
ILMN_1732197	MN1	meningioma (disrupted in balanced translocation) 1 (MN1), mRNA.	NM_002430.2	7.8	9.99	2.19	26.01
ILMN_1794239	C4orf26	chromosome 4 open reading frame 26 (C4orf26), mRNA.	NM_178497.2	5.53	7.79	2.26	25.9
ILMN_1651826	BASP1	brain abundant, membrane attached signal protein 1 (BASP1), mRNA.	NM_006317.3	7.36	10.19	2.84	25.8
ILMN_2360710	TPM1	tropomyosin 1 (alpha) (TPM1), transcript variant 3, mRNA.	NM_001018004.1	12	14.36	2.36	25.66
ILMN_1704247	LAMA3	laminin, alpha 3 (LAMA3), transcript variant 2, mRNA.	NM_000227.2	7.26	9.47	2.22	25.48
ILMN_1655740	SNAI2	snail homolog 2 (Drosophila) (SNAI2), mRNA.	NM_003068.3	9.38	11.65	2.26	25.27
ILMN_1731433	ABP1	amiloride binding protein 1 (amine oxidase (copper-containing)) (ABP1), mRNA.	NM_001091.2	9.05	6.46	-2.6	25.2
ILMN_1736190	CYP4F3	cytochrome P450, family 4, subfamily F, polypeptide 3 (CYP4F3), mRNA.	NM_000896.1	10.95	8.67	-2.28	24.87
ILMN_1749414	MGC4294	PREDICTED: hypothetical protein MGC4294 (MGC4294), misc RNA.	XR_017834.1	5.88	7.63	1.75	24.81
ILMN_1738552	SLC1A3	solute carrier family 1 (glial high affinity glutamate transporter), member 3 (SLC1A3), mRNA.	NM_004172.3	10.42	8.26	-2.16	24.73
ILMN_1797776	PRSS23	protease, serine, 23 (PRSS23), mRNA.	NM_007173.4	9.63	11.87	2.24	24.73
ILMN_2399304	NAV2	neuron navigator 2 (NAV2), transcript variant 2, mRNA.	NM_145117.3	6.37	8.8	2.44	24.66
ILMN_1747217	C15orf41	chromosome 15 open reading frame 41 (C15orf41), mRNA.	NM_032499.3	10.31	8.31	-2	24.62
ILMN_1688892	LAMA3	laminin, alpha 3 (LAMA3), transcript variant 1, mRNA.	NM_198129.1	9.78	12.2	2.42	24.53
ILMN_2162253	NMU	neuromedin U (NMU), mRNA.	NM_006681.1	12.44	10.35	-2.09	24.49
ILMN_1806023	JUN	jun oncogene (JUN), mRNA.	NM_002228.3	8.36	11.21	2.84	24.46
ILMN_1860963		UI-E-EJO-ahj-d-03-0-UI-r2 UI-E-EJO cDNA clone UI-E-EJO-ahj-d-03-0-UI 5, mRNA sequence		8.18	6.27	-1.91	24.44
ILMN_1768534	BHLHB2	basic helix-loop-helix domain containing, class B, 2 (BHLHB2), mRNA.	NM_003670.1	9.66	11.87	2.2	24.41
ILMN_2233334	MYH16	myosin, heavy chain 16 pseudogene (MYH16) on chromosome 7.	NR_002147.2	6.09	8.25	2.17	24.4
ILMN_1695290	FERMT2	fermitin family homolog 2 (Drosophila) (FERMT2), mRNA.	NM_006832.1	8.34	10.51	2.17	24.35
ILMN_1728662	ALDH3B1	aldehyde dehydrogenase 3 family, member B1 (ALDH3B1), transcript variant 1, mRNA.	NM_000694.2	8.82	6.54	-2.28	24.31
ILMN_1809590	GINS2	GINS complex subunit 2 (Psf2 homolog) (GINS2), mRNA.	NM_016095.1	10.82	8.99	-1.83	24.23
ILMN_1673721	EXO1	exonuclease 1 (EXO1), transcript variant 1, mRNA.	NM_006027.3	9.16	7.06	-2.09	24.19
ILMN_1811468	IRX3	iroquois homeobox 3 (IRX3), mRNA.	NM_024336.1	13.39	11.74	-1.65	24.19
ILMN_1706519	LAMC2	laminin, gamma 2 (LAMC2), transcript variant 2, mRNA.	NM_018891.1	7.18	10.35	3.17	24.1
ILMN_1788931	DOCK8	dedicator of cytokinesis 8 (DOCK8), mRNA.	NM_203447.1	8.23	5.79	-2.44	24.08
ILMN_1695604	DCBLD1	discoidin, CUB and LCCL domain containing 1 (DCBLD1), mRNA.	NM_173674.1	9.4	12.03	2.63	23.97
ILMN_1734276	PMEP1	prostate transmembrane protein, androgen induced 1 (PMEP1), transcript variant 2, mRNA.	NM_199169.1	11.23	13.4	2.17	23.96
ILMN_2400644	SRGAP3	SLIT-ROBO Rho GTPase activating protein 3 (SRGAP3), transcript variant 2, mRNA.	NM_001033117.1	9.83	7.47	-2.36	23.94
ILMN_1670238	CDC45L	CDC45 cell division cycle 45-like (S. cerevisiae) (CDC45L), mRNA.	NM_003504.3	10.47	8.3	-2.17	23.89
ILMN_1752755	VWF	von Willebrand factor (VWF), mRNA.	NM_000552.3	8.99	6.61	-2.38	23.89
ILMN_1701308	COL1A1	collagen, type I, alpha 1 (COL1A1), mRNA.	NM_000088.3	6.51	8.9	2.38	23.89
ILMN_1814686	BCMO1	beta-carotene 15,15'-monooxygenase 1 (BCMO1), mRNA.	NM_017429.2	7.59	5.74	-1.85	23.82
ILMN_1744765	KRT4	keratin 4 (KRT4), mRNA.	NM_002272.2	10.96	7.42	-3.55	23.78
ILMN_1746502	LOC399978	PREDICTED: hypothetical LOC399978 (LOC399978), mRNA.	XM_944623.2	6.39	9.56	3.17	23.77
ILMN_1800332	NGB	neuroglobin (NGB), mRNA.	NM_021257.3	7.7	10.23	2.52	23.74
ILMN_2163790	CG8B5	chorionic gonadotropin, beta polypeptide 5 (CG8B5), mRNA.	NM_033043.1	7.31	9.84	2.53	23.66
ILMN_1743130	PTGFRN	prostaglandin F2 receptor negative regulator (PTGFRN), mRNA.	NM_020440.2	10.1	12.11	2.02	23.66
ILMN_1720158	ETS2	v-ets erythroblastosis virus E26 oncogene homolog 2 (avian) (ETS2), mRNA.	NM_005239.4	9.73	11.55	1.81	23.65
ILMN_1666845	KRT17	keratin 17 (KRT17), mRNA.	NM_000422.1	13.65	15.23	1.58	23.65
ILMN_1742151	NRG2	neuregulin 2 (NRG2), transcript variant 6, mRNA.	NM_013985.1	7.72	5.71	-2.02	23.43
ILMN_1881514		cDNA FLJ36847 f1s, clone ASTRO2013671		7.14	9.07	1.93	23.43
ILMN_1779648	HIST3H2A	histone cluster 3, H2a (HIST3H2A), mRNA.	NM_033445.2	11.4	9.77	-1.64	23.37
ILMN_1786041	ASB9	ankyrin repeat and SOCS box-containing 9 (ASB9), transcript variant 2, mRNA.	NM_024087.1	10.02	8.07	-1.96	23.35

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Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1730487	CALD1	caldesmon 1 (CALD1), transcript variant 5, mRNA.	NM_033140.2	7.8	10.14	2.34	23.35
ILMN_2044645	CGB1	chorionic gonadotropin, beta polypeptide 1 (CGB1), mRNA.	NM_033377.1	8.19	10.44	2.26	23.35
ILMN_2362902	RASSF5	Ras association (RalGDS/AF-6) domain family member 5 (RASSF5), transcript variant 2, mRNA.	NM_182664.2	9.97	7.68	-2.29	23.34
ILMN_1718990	NFRKB	nuclear factor related to kappaB binding protein (NFRKB), mRNA.	NM_006165.2	9.08	7.01	-2.07	23.34
ILMN_1680018	RIPK4	receptor-interacting serine-threonine kinase 4 (RIPK4), mRNA.	NM_020639.2	10.82	8.83	-1.99	23.34
ILMN_1660732	PPP2R2B	protein phosphatase 2 (formerly 2A), regulatory subunit B, beta isoform (PPP2R2B), transcript variant 4, mRNA.	NM_181676.1	12.92	10.91	-2.01	23.32
ILMN_1651237	CDT1	chromatin licensing and DNA replication factor 1 (CDT1), mRNA.	NM_030928.2	10.38	7.74	-2.64	23.26
ILMN_2410929	PAPSS2	3'-phosphoadenosine 5'-phosphosulfate synthase 2 (PAPSS2), transcript variant 1, mRNA.	NM_004670.3	9.47	7.41	-2.06	23.21
ILMN_2406035	LAMA3	laminin, alpha 3 (LAMA3), transcript variant 1, mRNA.	NM_198129.1	11.09	13.23	2.14	23.19
ILMN_2405254	GRB7	growth factor receptor-bound protein 7 (GRB7), transcript variant 2, mRNA.	NM_001030002.1	9.78	7.74	-2.04	23.17
ILMN_1673548	HSPC159	galectin-related protein (HSPC159), mRNA.	NM_014181.1	8.57	10.56	1.99	23.16
ILMN_2166457	HPGD	hydroxyprostaglandin dehydrogenase 15-(NAD) (HPGD), mRNA.	NM_000860.3	9.4	6.87	-2.53	23.14
ILMN_1727689	TNFAIP2	tumor necrosis factor, alpha-induced protein 2 (TNFAIP2), mRNA.	NM_006291.2	8.55	6.1	-2.46	23.13
ILMN_1760247	CD70	CD70 molecule (CD70), mRNA.	NM_001252.3	9.28	7.48	-1.8	22.96
ILMN_2413898	MCM10	minichromosome maintenance complex component 10 (MCM10), transcript variant 2, mRNA.	NM_181538.3	9.42	7.12	-2.29	22.92
ILMN_1653824	LAMC2	laminin, gamma 2 (LAMC2), transcript variant 1, mRNA.	NM_005562.1	8.81	12.02	3.21	22.92
ILMN_1784287	TGFB3	transforming growth factor, beta receptor III (TGFB3), mRNA.	NM_003243.2	9.01	6.76	-2.26	22.88
ILMN_2038775	TUBB2A	tubulin, beta 2A (TUBB2A), mRNA.	NM_001069.2	7.27	8.85	1.58	22.86
ILMN_1719759	TNC	tenascin C (hexabrachion) (TNC), mRNA.	NM_002160.2	7.92	10.55	2.63	22.82
ILMN_1790317	RAB26	RAB26, member RAS oncogene family (RAB26), mRNA.	NM_014353.4	10.54	8.18	-2.35	22.77
ILMN_1676192	SLC13A5	solute carrier family 13 (sodium-dependent citrate transporter), member 5 (SLC13A5), mRNA.	NM_177550.2	5.81	8.22	2.41	22.75
ILMN_1663866	TGFB1	transforming growth factor, beta-induced, 68kDa (TGFB1), mRNA.	NM_000358.1	13.41	15.1	1.69	22.66
ILMN_1692754	TMEM49	transmembrane protein 49 (TMEM49), mRNA.	NM_030938.2	11.1	13	1.91	22.64
ILMN_2315979	LBH	limb bud and heart development homolog (mouse) (LBH), mRNA.	NM_030915.1	8.13	10.49	2.36	22.62
ILMN_1812297	CYP26B1	cytochrome P450, family 26, subfamily B, polypeptide 1 (CYP26B1), mRNA.	NM_019885.2	9.27	11.04	1.77	22.58
ILMN_2308903	WFDC3	WAP four-disulfide core domain 3 (WFDC3), transcript variant 2, mRNA.	NM_181522.1	10.17	7.28	-2.89	22.52
ILMN_1685699	PRSS3	protease, serine, 3 (mesotrypsin) (PRSS3), mRNA.	NM_002771.2	8.46	10.1	1.64	22.41
ILMN_1796316	MMP9	matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) (MMP9), mRNA.	NM_004994.2	6.37	9.02	2.65	22.38
ILMN_1716507	EPB41L1	erythrocyte membrane protein band 4.1-like 1 (EPB41L1), transcript variant 1, mRNA.	NM_012156.2	9.49	7.8	-1.69	22.37
ILMN_2360202	PPP2R2B	protein phosphatase 2 (formerly 2A), regulatory subunit B, beta isoform (PPP2R2B), transcript variant 4, mRNA.	NM_181676.1	9.93	7.69	-2.25	22.35
ILMN_2396444	CD14	CD14 molecule (CD14), transcript variant 2, mRNA.	NM_001040021.1	8.75	6.58	-2.17	22.3
ILMN_1714602	CD86	CD86 molecule (CD86), transcript variant 2, mRNA.	NM_006889.3	7.24	9.52	2.28	22.3
ILMN_1713496	ST3GAL5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5 (ST3GAL5), transcript variant 2, mRNA.	NM_001042437.1	6.53	8.71	2.17	22.28
ILMN_1758146	SIRPA	signal-regulatory protein alpha (SIRPA), transcript variant 2, mRNA.	NM_001040023.1	7.45	9.69	2.24	22.22
ILMN_2320330	MAL	mal, T-cell differentiation protein (MAL), transcript variant a, mRNA.	NM_002371.2	10.84	7.95	-2.9	22.2
ILMN_1907544	UI-E-EJ1-ajw-b-16-0-UI-r1 UI-E-EJ1 cDNA clone UI-E-EJ1-ajw-b-16-0-UI 5, mRNA sequence			8.52	6.3	-2.22	22.19
ILMN_1721770	PAPPA	pregnancy-associated plasma protein A, pappalysin 1 (PAPPA), mRNA.	NM_002581.3	6.58	8.79	2.21	22.18
ILMN_1686573	DEFB1	defensin, beta 1 (DEFB1), mRNA.	NM_005218.3	9.62	6.5	-3.13	22.1
ILMN_1721218	KRT13	keratin 13 (KRT13), transcript variant 2, mRNA.	NM_002274.3	14.88	12	-2.88	22.09
ILMN_1772686	FGD3	FYVE, RhoGEF and PH domain containing 3 (FGD3), transcript variant 2, mRNA.	NM_033086.2	10.24	8.11	-2.13	22.09
ILMN_1681890	DYNLT3	dynein, light chain, Tctex-type 3 (DYNLT3), mRNA.	NM_006520.1	8.79	11.29	2.5	22.09
ILMN_1788131	CYP26A1	cytochrome P450, family 26, subfamily A, polypeptide 1 (CYP26A1), transcript variant 2, mRNA.	NM_057157.1	8.02	6.04	-1.98	22.06
ILMN_1800540	CD55	CD55 molecule, decay accelerating factor for complement (Cromer blood group) (CD55), mRNA.	NM_000574.2	6.9	9.17	2.26	22.01
ILMN_1748685	TRIM31	tripartite motif-containing 31 (TRIM31), mRNA.	NM_007028.3	8.28	6.25	-2.02	21.99
ILMN_1682717	IER3	immediate early response 3 (IER3), mRNA.	NM_003897.3	9.87	12.19	2.33	21.98
ILMN_1702487	SGK	serum/glucocorticoid induced kinase (SGK), mRNA.	NM_005627.2	9.61	11.57	1.96	21.96
ILMN_2205963	C10orf54	chromosome 10 open reading frame 54 (C10orf54), mRNA.	NM_022153.1	11.41	9.74	-1.67	21.94
ILMN_1681503	MCM2	minichromosome maintenance complex component 2 (MCM2), mRNA.	NM_004526.2	9.79	7.72	-2.07	21.84
ILMN_1799819	MARS	methionyl-tRNA synthetase (MARS), mRNA.	NM_004990.2	8.03	9.69	1.66	21.83
ILMN_1796417	ASNS	asparagine synthetase (ASNS), transcript variant 1, mRNA.	NM_133436.1	10.32	12.1	1.78	21.81
ILMN_1677347	KIAA0774	KIAA0774 (KIAA0774), transcript variant 2, mRNA.	NM_015233.5	8.88	6.57	-2.31	21.78
ILMN_2197365	RGS2	regulator of G-protein signalling 2, 24kDa (RGS2), mRNA.	NM_002923.1	11.01	8.69	-2.32	21.74
ILMN_1716608	NGF	nerve growth factor (beta polypeptide) (NGF), mRNA.	NM_002506.2	6.42	8.17	1.76	21.72
ILMN_1775542	FAIM3	Fas apoptotic inhibitory molecule 3 (FAIM3), mRNA.	NM_005449.3	7.31	9.08	1.76	21.72
ILMN_1703955	FBXO32	F-box protein 32 (FBXO32), transcript variant 2, mRNA.	NM_148177.1	11.4	9.34	-2.06	21.71
ILMN_1733998	DHRS9	dehydrogenase/reductase (SDR family) member 9 (DHRS9), transcript variant 1, mRNA.	NM_005771.3	7.71	5.82	-1.9	21.68
ILMN_1788377	COL27A1	collagen, type XXVII, alpha 1 (COL27A1), mRNA.	NM_032888.2	6.49	8.88	2.39	21.65
ILMN_1663401	LARP6	La ribonucleoprotein domain family, member 6 (LARP6), transcript variant 2, mRNA.	NM_197958.1	10.34	11.98	1.63	21.61
ILMN_2336609	SYTL2	synaptotagmin-like 2 (SYTL2), transcript variant e, mRNA.	NM_206929.1	9.36	7.08	-2.28	21.59
ILMN_1838767		clone FP7915 unknown mRNA		11.47	9.52	-1.94	21.5
ILMN_1779711	DTL	denticless homolog (Drosophila) (DTL), mRNA.	NM_016448.1	7.85	5.95	-1.91	21.38
ILMN_1771120	TMEM45B	transmembrane protein 45B (TMEM45B), mRNA.	NM_138788.3	10.26	7.49	-2.77	21.29
ILMN_1859127		PREDICTED: hypothetical LOC388214 (LOC388214), mRNA		6.9	8.84	1.93	21.28
ILMN_1759232	IRS1	insulin receptor substrate 1 (IRS1), mRNA.	NM_005544.1	7.01	8.98	1.96	21.24
ILMN_1686116	THBS1	thrombospondin 1 (THBS1), mRNA.	NM_003246.2	10.29	13.04	2.75	21.15
ILMN_2142353	GRTF1	growth hormone regulated TBC protein 1 (GRTF1), mRNA.	NM_024719.2	9.31	7.35	-1.96	21.12
ILMN_2210129	PRIM1	primase, DNA, polypeptide 1 (49kDa) (PRIM1), mRNA.	NM_000946.2	9.98	8.27	-1.72	21.12
ILMN_1788107	IL11	interleukin 11 (IL11), mRNA.	NM_000641.2	6.32	8.47	2.15	21.12
ILMN_1667239	INPP1	inositol polyphosphate-1-phosphatase (INPP1), mRNA.	NM_002194.2	11.75	10.12	-1.63	21.1
ILMN_1791328	STK39	serine threonine kinase 39 (STE20/SPS1 homolog, yeast) (STK39), mRNA.	NM_013233.2	11.12	9.62	-1.5	21.04
ILMN_1762561	PLA2G10	phospholipase A2, group X (PLA2G10), mRNA.	NM_003561.1	12.44	10.02	-2.42	20.98
ILMN_2082585	SNAI2	snail homolog 2 (Drosophila) (SNAI2), mRNA.	NM_003068.3	10.05	12.18	2.13	20.93
ILMN_1679262	DPYSL3	dihydropyrimidinase-like 3 (DPYSL3), mRNA.	NM_001387.2	8.42	10.28	1.86	20.88
ILMN_1663787	KLK3	kallikrein-related peptidase 3 (KLK3), transcript variant 6, mRNA.	NM_001030050.1	6.8	9.32	2.52	20.88
ILMN_1710325	SCEL	scellin (SCEL), transcript variant 2, mRNA.	NM_144777.1	9.22	6.92	-2.3	20.87
ILMN_1779852	LOC387934	PREDICTED: similar to Fatty acid-binding protein, epidermal (E-FABP) (Psoriasis-associated fatty acid-binding protein homolog)	XM_937508.2	6.89	9.16	2.28	20.87
ILMN_2170209	RASD2	RASD family, member 2 (RASD2), mRNA.	NM_014310.3	6.01	7.73	1.72	20.87
ILMN_1676728	DLK2	delta-like 2 homolog (Drosophila) (DLK2), transcript variant 2, mRNA.	NM_206539.1	11.67	10.21	-1.46	20.85
ILMN_1674533	TRPV6	transient receptor potential cation channel, subfamily V, member 6 (TRPV6), mRNA.	NM_018646.2	9.09	7.1	-1.99	20.82
ILMN_1653292	PFKFB4	6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase 4 (PFKFB4), mRNA.	NM_004567.2	10.04	11.66	1.62	20.8
ILMN_1657823	PMEP1	prostate transmembrane protein, androgen induced 1 (PMEP1), transcript variant 1, mRNA.	NM_020182.3	6.32	8.49	2.17	20.77
ILMN_1772824	WNT5B	wingless-type MMTV integration site family, member 5B (WNT5B), transcript variant 1, mRNA.	NM_032642.2	7.93	9.64	1.71	20.71
ILMN_1718607	TSPAN4	tetraspanin 4 (TSPAN4), transcript variant 3, mRNA.	NM_001025235.1	7.91	9.89	1.98	20.68
ILMN_2352921	BPGM	2,3-bisphosphoglycerate mutase (BPGM), transcript variant 1, mRNA.	NM_001724.3	6.92	8.98	2.05	20.64
ILMN_1713751	ADAM19	ADAM metalloproteinase domain 19 (meltrin beta) (ADAM19), transcript variant 2, mRNA.	NM_033274.2	8.33	10.46	2.13	20.62
ILMN_2086077	JUNB	jun B proto-oncogene (JUNB), mRNA.	NM_002229.2	7.58	9.3	1.73	20.6
ILMN_1713927	AMTN	amelotin (AMTN), mRNA.	NM_212557.2	5.72	7.5	1.78	20.58
ILMN_1653856	STS-1	Cbl-interacting protein Sts-1 (STS-1), mRNA.	NM_032873.3	7.92	10.3	2.37	20.56
ILMN_1782944	GPR37L1	G protein-coupled receptor 37 like 1 (GPR37L1), mRNA.	NM_004767.3	7.69	5.82	-1.86	20.54
ILMN_1721626	ARID5B	AT rich interactive domain 5B (MRF1-like) (ARID5B), mRNA.	NM_032199.1	11.56	9.32	-2.25	20.52
ILMN_1685709	TMEM125	transmembrane protein 125 (TMEM125), mRNA.	NM_144626.1	9.01	7.09	-1.93	20.5
ILMN_1765187	LHB	luteinizing hormone beta polypeptide (LHB), mRNA.	NM_000894.2	6.27	8.39	2.11	20.49
ILMN_1726222	FLOT2	flotillin 2 (FLOT2), mRNA.	NM_004475.2	12.49	11.18	-1.32	20.3
ILMN_1771264	ELL3	elongation factor RNA polymerase II-like 3 (ELL3), mRNA.	NM_025165.2	9.69	8.18	-1.51	20.28
ILMN_2093343	PLAC8	placenta-specific 8 (PLAC8), mRNA.	NM_016619.1	9.06	7.33	-1.73	20.26
ILMN_1806607	SFN	stratifin (SFN), mRNA.	NM_006142.3	11.39	12.97	1.58	20.2
ILMN_2116877	OLFM4	olfactomedin 4 (OLFM4), mRNA.	NM_006418.3	12.29	8.49	-3.8	20.13
ILMN_1709348	ALDH1A1	aldehyde dehydrogenase 1 family, member A1 (ALDH1A1), mRNA.	NM_000689.3	11.64	8.36	-3.28	20.08
ILMN_1863962		BX116033 NCI CGAP Lu24 cDNA clone IMAGp998A155622, mRNA sequence		9.08	7.18	-1.9	20.03
ILMN_1731064	CABC1	chaperone, ABC1 activity of bc1 complex homolog (S. pombe) (CABC1), nuclear gene encoding mitochondrial protein, mRNA.	NM_020247.4	9.69	8.02	-1.66	19.98
ILMN_1729161	NOTCH1	Notch homolog 1, translocation-associated (Drosophila) (NOTCH1), mRNA.	NM_017617.3	12.55	10.8	-1.75	19.96

Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1805519	CD24	CD24 molecule (CD24), mRNA.	NM_013230.2	10.62	12.15	1.54	19.92
ILMN_1671891	PID1	phosphotyrosine interaction domain containing 1 (PID1), mRNA.	NM_017933.3	6.32	7.83	1.51	19.92
ILMN_1713744	C14orf132	chromosome 14 open reading frame 132 (C14orf132), mRNA.	NM_020215.2	8.12	6.61	-1.51	19.82
ILMN_1671482	GALM	galactose mutarotase (aldose 1-epimerase) (GALM), mRNA.	NM_138801.1	8.59	6.82	-1.77	19.69
ILMN_1670353	RAD51AP1	RAD51 associated protein 1 (RAD51AP1), mRNA.	NM_006479.3	9.82	8.11	-1.71	19.54
ILMN_1808789	MYO5C	myosin VC (MYO5C), mRNA.	NM_018728.2	9.33	7.8	-1.53	19.53
ILMN_1795285	PHF15	PHD finger protein 15 (PHF15), mRNA.	NM_015288.4	9.22	7.4	-1.81	19.49
ILMN_1732404	C2orf15	chromosome 2 open reading frame 15 (C2orf15), mRNA.	NM_144706.2	9.44	7.65	-1.79	19.47
ILMN_1652280	FBXO32	F-box protein 32 (FBXO32), transcript variant 1, mRNA.	NM_058229.2	9.98	8.03	-1.95	19.47
ILMN_1683450	CDC45	cell division cycle associated 5 (CDC45), mRNA.	NM_080668.2	11.18	9.6	-1.58	19.31
ILMN_2405305	ARNTL	aryl hydrocarbon receptor nuclear translocator-like (ARNTL), transcript variant 2, mRNA.	NM_001030272.1	7.69	9.49	1.8	19.31
ILMN_1804007	NANOS3	nanos homolog 3 (Drosophila) (NANOS3), mRNA.	NM_001098622.1	7.09	8.92	1.83	19.31
ILMN_1671365	PRODH	proline dehydrogenase (oxidase) 1 (PRODH), nuclear gene encoding mitochondrial protein, mRNA.	NM_016335.2	9.1	7.05	-2.05	19.28
ILMN_1798654	MCM6	minichromosome maintenance complex component 6 (MCM6), mRNA.	NM_005915.4	11.58	10.03	-1.55	19.27
ILMN_1712673	SASH1	SAM and SH3 domain containing 1 (SASH1), mRNA.	NM_015278.3	9.12	7.38	-1.74	19.25
ILMN_1700817	KIAA0774	KIAA0774 (KIAA0774), transcript variant 1, mRNA.	NM_001033602.2	8.45	6.6	-1.85	19.25
ILMN_1726928	TCEA3	transcription elongation factor A (SII), 3 (TCEA3), mRNA.	NM_003196.1	11.56	9.84	-1.72	19.19
ILMN_1811909	LOC402221	PREDICTED: similar to actin alpha 1 skeletal muscle protein (LOC402221), mRNA.	NM_938988.1	8.96	10.96	2	19.19
ILMN_1676689	PPT2	palmitoyl-protein thioesterase 2 (PPT2), transcript variant 2, mRNA.	NM_138717.1	8.52	6.63	-1.89	19.16
ILMN_2388190	SCEL	scellin (SCEL), transcript variant 1, mRNA.	NM_003843.2	9.16	7.09	-2.07	19.13
ILMN_2096372	ALDH1A1	aldehyde dehydrogenase 1 family, member A1 (ALDH1A1), mRNA.	NM_000689.3	10.83	8.1	-2.73	19.11
ILMN_1794612	UBA7	ubiquitin-like modifier activating enzyme 7 (UBA7), mRNA.	NM_003335.2	8.61	6.96	-1.66	19.11
ILMN_1675656	PPFIBP2	PTPRF interacting protein, binding protein 2 (Iiprin beta 2) (PPFIBP2), mRNA.	NM_003621.1	11.15	9.24	-1.91	19.1
ILMN_1679391	MAMDC2	MAM domain containing 2 (MAMDC2), mRNA.	NM_153267.3	9.03	10.72	1.69	19.1
ILMN_1726809	BHLHB3	basic helix-loop-helix domain containing, class B, 3 (BHLHB3), mRNA.	NM_030762.1	8.45	6.44	-2.01	19.06
ILMN_1663092	CITED2	Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2 (CITED2), mRNA.	NM_006079.3	9.8	8.02	-1.78	19.03
ILMN_1805665	FLRT3	fibronectin leucine rich transmembrane protein 3 (FLRT3), transcript variant 2, mRNA.	NM_198391.1	9.39	10.93	1.53	19.03
ILMN_1730794	SERTAD4	SERTA domain containing 4 (SERTAD4), mRNA.	NM_019605.2	8.34	10.31	1.97	18.9
ILMN_1700042	TLN2	talin 2 (TLN2), mRNA.	NM_015059.1	6.73	9.01	2.28	18.85
ILMN_1718977	GADD45B	growth arrest and DNA-damage-inducible, beta (GADD45B), mRNA.	NM_015675.2	7.12	9	1.88	18.84
ILMN_1746309	LOC389791	hypothetical gene supported by AK094537 (LOC389791), mRNA.	NM_001013652.1	9.48	7.73	-1.75	18.82
ILMN_2145670	TNC	tenascin C (hexabrachion) (TNC), mRNA.	NM_002160.1	7.76	9.74	1.97	18.82
ILMN_1715991	SDPR	serum deprivation response (phosphatidylserine binding protein) (SDPR), mRNA.	NM_004657.4	7.73	6.13	-1.6	18.79
ILMN_1797009	F3	coagulation factor III (thromboplastin, tissue factor) (F3), mRNA.	NM_001993.2	8.36	10.38	2.02	18.77
ILMN_1849033		Homo sapiens, clone IMAGE:5403381, mRNA		6.24	7.92	1.69	18.74
ILMN_1720889	SC4MOL	sterol-C4-methyl oxidase-like (SC4MOL), transcript variant 2, mRNA.	NM_001017369.1	10.39	12.08	1.68	18.71
ILMN_1733847	GALR2	galanin receptor 2 (GALR2), mRNA.	NM_003857.2	8.44	6.73	-1.71	18.68
ILMN_1824391		EST384910 IMAGE resequences, MAGL cDNA, mRNA sequence		8.5	10.37	1.87	18.68
ILMN_1810025	SLC39A2	solute carrier family 39 (zinc transporter), member 2 (SLC39A2), mRNA.	NM_014579.1	8.5	6.16	-2.34	18.65
ILMN_1795298	GPER	G protein-coupled estrogen receptor 1 (GPER), transcript variant 3, mRNA.	NM_001039966.1	8.52	6.69	-1.83	18.64
ILMN_1769615	FLRT2	fibronectin leucine rich transmembrane protein 2 (FLRT2), mRNA.	NM_013231.4	6.34	8.37	2.03	18.63
ILMN_1696302	FABP5	fatty acid binding protein 5 (psoriasis-associated) (FABP5), mRNA.	NM_001444.1	6.4	8.98	2.58	18.61
ILMN_1751785	DMRT2	doublesex and mab-3 related transcription factor 2 (DMRT2), transcript variant 1, mRNA.	NM_006557.4	8.05	6.17	-1.88	18.59
ILMN_1690223	CNTNAP2	contactin associated protein-like 2 (CNTNAP2), mRNA.	NM_014141.4	8.72	10.25	1.53	18.56
ILMN_1674135	RALGPS1	Ral GEF with PH domain and SH3 binding motif 1 (RALGPS1), mRNA.	NM_014636.1	10.75	8.93	-1.82	18.53
ILMN_1724994	COL4A2	collagen, type IV, alpha 2 (COL4A2), mRNA.	NM_001846.2	7.22	9.17	1.95	18.5
ILMN_1806907	PAWR	PRKC, apoptosis, WT1, regulator (PAWR), mRNA.	NM_002583.2	10.65	11.89	1.24	18.49
ILMN_1693664	POMGNT1	protein O-linked mannose beta1,2-N-acetylglucosaminyltransferase (POMGNT1), mRNA.	NM_017739.2	8.65	10.13	1.48	18.48
ILMN_1809433	XBP1	X-box binding protein 1 (XBP1), transcript variant 1, mRNA.	NM_005080.2	10.15	11.85	1.7	18.46
ILMN_1773865	HSPA5	heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) (HSPA5), mRNA.	NM_005347.2	8.81	10.46	1.66	18.46
ILMN_2374865	ATF3	activating transcription factor 3 (ATF3), transcript variant 4, mRNA.	NM_001040619.1	7.37	9.88	2.5	18.45
ILMN_1797728	HMGCS1	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 1 (soluble) (HMGCS1), transcript variant 2, mRNA.	NM_002130.6	9.92	12.01	2.1	18.37
ILMN_1764201	MAP2	microtubule-associated protein 2 (MAP2), transcript variant 2, mRNA.	NM_031845.2	7.35	9.16	1.81	18.3
ILMN_1756784	FREQ	frequenin homolog (Drosophila) (FREQ), mRNA.	NM_014286.2	8.43	10.04	1.61	18.25
ILMN_2203896	SMAD7	SMAD family member 7 (SMAD7), mRNA.	NM_005904.2	7.74	9.83	2.08	18.22
ILMN_1755281	FBXO15	F-box protein 15 (FBXO15), mRNA.	NM_152676.1	8.23	6.55	-1.68	18.21
ILMN_1689378	CCRN4L	CCR4 carbon catabolite repression 4-like (S. cerevisiae) (CCRN4L), mRNA.	NM_012118.2	6.4	8.64	2.24	18.18
ILMN_1737314	BCL6	B-cell CLL/lymphoma 6 (zinc finger protein 51) (BCL6), transcript variant 1, mRNA.	NM_001706.2	10.67	9.15	-1.52	18.17
ILMN_1704418	FOXO1	forkhead box D1 (FOXO1), mRNA.	NM_004472.2	9.41	10.95	1.54	18.14
ILMN_1786065	UHRF1	ubiquitin-like, containing PHD and RING finger domains, 1 (UHRF1), transcript variant 1, mRNA.	NM_001048201.1	10.04	8.54	-1.49	18.1
ILMN_2198878	INPP4B	inositol polyphosphate 4-phosphatase, type II, 105kDa (INPP4B), mRNA.	NM_003866.1	9.21	10.85	1.64	18.1
ILMN_1747336	POLE2	polymerase (DNA directed), epsilon 2 (p59 subunit) (POLE2), mRNA.	NM_002692.2	9.21	7.64	-1.57	18.04
ILMN_1798841	PLCXD3	phosphatidylinositol-specific phospholipase C, X domain containing 3 (PLCXD3), mRNA.	NM_001005473.1	8.09	5.97	-2.12	17.99
ILMN_1671295	CCDC3	coiled-coil domain containing 3 (CCDC3), mRNA.	NM_031455.2	6.07	7.57	1.5	17.89
ILMN_2148193	MPPED2	metallophosphoesterase domain containing 2 (MPPED2), mRNA.	NM_001584.1	9.61	7	-2.61	17.87
ILMN_1801105	PRKCD	protein kinase C, delta (PRKCD), transcript variant 1, mRNA.	NM_006254.3	10.76	9.23	-1.52	17.81
ILMN_1778321	SLC2A6	solute carrier family 2 (facilitated glucose transporter), member 6 (SLC2A6), mRNA.	NM_017585.2	8.63	10.27	1.64	17.72
ILMN_1719543	MAF	v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) (MAF), transcript variant 1, mRNA.	NM_005360.3	9.67	11.27	1.6	17.71
ILMN_1683598	ACSL4	acyl-CoA synthetase long-chain family member 4 (ACSL4), transcript variant 1, mRNA.	NM_004458.1	8.42	10.33	1.91	17.71
ILMN_1789627		40061 seems 5 (SEPT5), mRNA.	NM_002688.4	9.21	10.7	1.49	17.7
ILMN_2373728	ASB9	ankyrin repeat and SOCS box-containing 9 (ASB9), transcript variant 2, mRNA.	NM_024087.1	8.82	7.06	-1.75	17.65
ILMN_1770612	KRT15	keratin 15 (KRT15), mRNA.	NM_002275.2	14.6	12.47	-2.13	17.63
ILMN_1803367	EV11	ecotropic viral integration site 1 (EV11), mRNA.	NM_005241.1	11.24	9.96	-1.28	17.62
ILMN_1699489	TUBB6	PREDICTED: tubulin, beta 6 (TUBB6), mRNA.	XM_940079.1	8.84	10.15	1.3	17.55
ILMN_1804662	NRG4	neuregulin 4 (NRG4), mRNA.	NM_138573.2	10.26	8.81	-1.45	17.54
ILMN_2376723	CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) (CDKN2B), transcript variant 2, mRNA.	NM_078487.2	10.8	12.4	1.6	17.5
ILMN_1717639	SNF1LK	SNF1-like kinase (SNF1LK), mRNA.	NM_173354.3	7.9	9.56	1.66	17.5
ILMN_2219466	APOBEC3B	apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3B (APOBEC3B), mRNA.	NM_004900.3	10.54	8.76	-1.79	17.48
ILMN_1806040	TYMS	thymidylate synthetase (TYMS), mRNA.	NM_001071.1	9.95	8.18	-1.77	17.47
ILMN_2357134	SPHK1	sphingosine kinase 1 (SPHK1), transcript variant 1, mRNA.	NM_021972.2	6.65	8.29	1.64	17.41
ILMN_2327860	MAL	mal, T-cell differentiation protein (MAL), transcript variant d, mRNA.	NM_022440.1	12.77	10.21	-2.56	17.4
ILMN_1703855	SERPINB3	serpin peptidase inhibitor, clade B (ovalbumin), member 3 (SERPINB3), mRNA.	NM_006919.1	8.15	6.15	-1.99	17.34
ILMN_1785095	ATP6VOE2	ATPase, H+ transporting VO subunit e2 (ATP6VOE2), transcript variant 1, mRNA.	NM_145230.2	11.27	9.85	-1.42	17.33
ILMN_2199389	VIPR1	vasoactive intestinal peptide receptor 1 (VIPR1), mRNA.	NM_004624.2	9.84	11.5	1.66	17.32
ILMN_1735347	MCCE	methylmalonyl CoA epimerase (MCCE), mRNA.	NM_032601.2	10.4	9.32	-1.07	17.29
ILMN_1778240	GFOD1	glucose-fructose oxidoreductase domain containing 1 (GFOD1), mRNA.	NM_018988.2	9.09	10.67	1.58	17.26
ILMN_1738578	FILIP1L	filamin A interacting protein 1-like (FILIP1L), transcript variant 2, mRNA.	NM_014890.2	8.01	9.89	1.88	17.24
ILMN_2336094	ODZ3	od2, odd Oz/ten-m homolog 3 (Drosophila) (ODZ3), mRNA.	NM_001080477.1	9.04	10.86	1.81	17.24
ILMN_1730294	C18orf37	chromosome 18 open reading frame 37 (C18orf37), transcript variant 2, mRNA.	NM_194281.3	9.8	11.23	1.44	17.22
ILMN_1741566	BMP7	bone morphogenetic protein 7 (osteogenic protein 1) (BMP7), mRNA.	NM_001719.1	11.35	9.52	-1.84	17.21
ILMN_1856480		cDNA clone IMAGE:5263177		10.68	9.07	-1.61	17.21
ILMN_1840316		cDNA clone IMAGE:6186815, partial cds		9.75	8.42	-1.33	17.11
ILMN_1666392	WNT4	wingless-type MMTV integration site family, member 4 (WNT4), mRNA.	NM_030761.3	7.8	9.63	1.83	17.08
ILMN_2398159	DKK3	dickkopf homolog 3 (Xenopus laevis) (DKK3), transcript variant 2, mRNA.	NM_013253.4	11.88	13.21	1.33	17.06
ILMN_2345142	SULF2	sulfatase 2 (SULF2), transcript variant 1, mRNA.	NM_018837.2	10.26	11.42	1.17	17.06
ILMN_2412384	CNE2	cyclin E2 (CNE2), transcript variant 2, mRNA.	NM_057735.1	8.2	6.14	-2.07	17.01
ILMN_2384056	GPER	G protein-coupled estrogen receptor 1 (GPER), transcript variant 3, mRNA.	NM_001039966.1	8.65	6.78	-1.87	17.01
ILMN_1669819	LOC402569	PREDICTED: similar to importin alpha 1b (LOC402569), misc RNA.	XR_015714.1	6.38	8.04	1.66	17.01
ILMN_1699989	BNIP1	BCL2/adenovirus E1B 19kD interacting protein like (BNIP1), mRNA.	NM_138278.2	10.04	8.15	-1.88	16.99
ILMN_1778575	WNT7A	wingless-type MMTV integration site family, member 7A (WNT7A), mRNA.	NM_004625.3	8.33	9.9	1.57	16.99
ILMN_1660794	LBH	PREDICTED: hypothetical protein DKFZp566J091 (LBH), mRNA.	XM_001132517.1	6.37	8.06	1.69	16.97

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN 1707695	IFIT1	interferon-induced protein with tetratricopeptide repeats 1 (IFIT1), transcript variant 2, mRNA.	NM_001548.3	9.52	7.5	-2.02	16.94
ILMN 1812926	ANTXR2	anthrax toxin receptor 2 (ANTXR2), mRNA.	NM_058172.3	7.38	9.13	1.76	16.93
ILMN 2393243	GTPBP8	GTP-binding protein 8 (putative) (GTPBP8), transcript variant 1, mRNA.	NM_014170.2	9.95	8.55	-1.39	16.88
ILMN 2098616	C5orf39	chromosome 5 open reading frame 39 (C5orf39), mRNA.	NM_001014279.1	8.64	7.25	-1.39	16.85
ILMN 1782050	CEBPD	CCAAT/enhancer binding protein (C/EBP), delta (CEBPD), mRNA.	NM_005195.3	10.23	8.96	-1.27	16.81
ILMN 1786470	C1orf74	chromosome 1 open reading frame 74 (C1orf74), mRNA.	NM_152485.2	8.38	9.62	1.24	16.8
ILMN 1799589	NOXA1	NADPH oxidase activator 1 (NOXA1), mRNA.	NM_006647.1	8.92	7.2	-1.72	16.79
ILMN 1675616	C12orf54	chromosome 12 open reading frame 54 (C12orf54), mRNA.	NM_152319.2	6.53	8.23	1.7	16.79
ILMN 1732150	KIAA0101	KIAA0101 (KIAA0101), transcript variant 2, mRNA.	NM_001029989.1	8.41	6.51	-1.9	16.77
ILMN 1808220	LCE3E	late cornified envelope 3E (LCE3E), mRNA.	NM_178435.2	5.84	7.45	1.61	16.76
ILMN 1793950	P704P	PREDICTED: prostate-specific P704P (P704P), mRNA.	XM_926231.1	7.7	9.34	1.64	16.76
ILMN 12134130	FLG	filaggrin (FLG), mRNA.	NM_002016.1	10.13	8.23	-1.9	16.67
ILMN 2054297	PTGS2	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase) (PTGS2), mRNA.	NM_000963.1	7.99	9.75	1.75	16.65
ILMN 1741159	MAP3K8	mitogen-activated protein kinase kinase kinase 8 (MAP3K8), mRNA.	NM_005204.2	9.38	7.59	-1.79	16.59
ILMN 1673899	FAM57A	family with sequence similarity 57, member A (FAM57A), mRNA.	NM_024792.1	10.2	11.34	1.14	16.59
ILMN 2157240	MNS1	meiosis-specific nuclear structural 1 (MNS1), mRNA.	NM_018365.1	8.94	7.5	-1.45	16.47
ILMN 1702858	ADHFE1	alcohol dehydrogenase, iron containing, 1 (ADHFE1), mRNA.	NM_144650.2	9.15	7.81	-1.34	16.47
ILMN 1784602	CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1) (CDKN1A), transcript variant 1, mRNA.	NM_000389.2	11.77	12.99	1.22	16.45
ILMN 2230683	CDC47L	cell division cycle associated 7-like (CDC47L), mRNA.	NM_018719.2	8.73	6.92	-1.81	16.43
ILMN 1815673	DKK3	dickkopf homolog 3 (Xenopus laevis) (DKK3), transcript variant 1, mRNA.	NM_015881.5	11.21	12.62	1.41	16.43
ILMN 1796335	LPCAT2	lysophosphatidylcholine acyltransferase 2 (LPCAT2), mRNA.	NM_017839.3	9.65	11.18	1.54	16.43
ILMN 1771800	PRKCA	protein kinase C, alpha (PRKCA), mRNA.	NM_002737.2	6.83	8.28	1.45	16.43
ILMN 1671557	PHLDA2	pleckstrin homology-like domain, family A, member 2 (PHLDA2), mRNA.	NM_003311.3	7.66	9.09	1.43	16.39
ILMN 2388484	MAP2	microtubule-associated protein 2 (MAP2), transcript variant 1, mRNA.	NM_002374.3	7.3	9.13	1.83	16.38
ILMN 1680996	ALOX5	PREDICTED: arachidonate 5-lipoxygenase (ALOX5), mRNA.	XM_001127464.1	6.74	8.31	1.57	16.36
ILMN 1739428	IFIT2	interferon-induced protein with tetratricopeptide repeats 2 (IFIT2), mRNA.	NM_001547.4	9.73	7.84	-1.89	16.35
ILMN 1777513	KCTD11	potassium channel tetramerisation domain containing 11 (KCTD11), mRNA.	NM_001002914.2	8.33	9.91	1.58	16.29
ILMN 1803593	WNT3	wingless-type MMTV integration site family, member 3 (WNT3), mRNA.	NM_030753.3	8.99	10.67	1.69	16.29
ILMN 1804735	CBS	cystathionine-beta-synthase (CBS), mRNA.	NM_000071.1	8.42	9.79	1.37	16.28
ILMN 1777740	C8orf55	chromosome 8 open reading frame 55 (C8orf55), mRNA.	NM_016647.2	12.1	10.59	-1.52	16.27
ILMN 1702503	ALDH3A1	aldehyde dehydrogenase 3 family, member A1 (ALDH3A1), mRNA.	NM_000691.3	13.3	11.78	-1.52	16.26
ILMN 1730906	FILIP1L	filamin A interacting protein 1-like (FILIP1L), transcript variant 1, mRNA.	NM_182909.2	8.1	9.75	1.65	16.26
ILMN 1784300	TUBA4A	tubulin, alpha 4a (TUBA4A), mRNA.	NM_006000.1	11.72	13.01	1.3	16.26
ILMN 2324002	CALD1	caldesmon 1 (CALD1), transcript variant 3, mRNA.	NM_033157.2	7.23	9.33	2.1	16.24
ILMN 1737406	KLF6	Kruppel-like factor 6 (KLF6), transcript variant 1, mRNA.	NM_001008490.1	9.51	10.88	1.37	16.23
ILMN 1701918	KLHDC9	kelch domain containing 9 (KLHDC9), transcript variant 3, mRNA.	NM_001007256.1	9.5	8.05	-1.45	16.2
ILMN 1803236	CLCA2	chloride channel, calcium activated, family member 2 (CLCA2), mRNA.	NM_006536.4	10.33	8.34	-1.99	16.17
ILMN 2326509	CASP1	caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase) (CASP1), transcript variant delta, mRNA.	NM_033294.2	9.25	7.55	-1.71	16.11
ILMN 1668411	FHL2	four and a half LIM domains 2 (FHL2), transcript variant 4, mRNA.	NM_201557.2	10.98	12.12	1.14	16.1
ILMN 1770850	PNMA1	paraneoplastic antigen MA1 (PNMA1), mRNA.	NM_006029.4	7.97	9.72	1.74	16.08
ILMN 1709237	EPHX2	epoxide hydrolase 2, cytoplasmic (EPHX2), mRNA.	NM_001979.4	8.92	7.16	-1.76	16.05
ILMN 1778136	ZMYND15	zinc finger, MYND-type containing 15 (ZMYND15), mRNA.	NM_032265.1	8.13	6.83	-1.3	16.03
ILMN 1796074	C18orf56	chromosome 18 open reading frame 56 (C18orf56), mRNA.	NM_001012716.1	8.68	7.32	-1.36	16
ILMN 1723198	CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) (CDKN2B), transcript variant 1, mRNA.	NM_004936.3	9.48	11.18	1.7	15.99
ILMN 1801068	DACT1	dapper, antagonist of beta-catenin, homolog 1 (Xenopus laevis) (DACT1), mRNA.	NM_016651.4	5.95	7.7	1.75	15.99
ILMN 2224143	MCM3	minichromosome maintenance complex component 3 (MCM3), mRNA.	NM_002388.3	12.53	11.32	-1.21	15.97
ILMN 2044453	LPAR5	lysophosphatidic acid receptor 5 (LPAR5), mRNA.	NM_020400.4	9.57	10.81	1.24	15.97
ILMN 1656904	SLC1A4	solute carrier family 1 (glutamate/neutral amino acid transporter), member 4 (SLC1A4), mRNA.	NM_003038.2	7.67	9.05	1.38	15.97
ILMN 1661589	CD151	CD151 molecule (Raph blood group) (CD151), transcript variant 4, mRNA.	NM_139029.1	9.83	11.25	1.42	15.96
ILMN 2366463	FN1	fibronectin 1 (FN1), transcript variant 6, mRNA.	NM_212474.1	6.06	7.6	1.54	15.96
ILMN 2160929	FEN1	flap structure-specific endonuclease 1 (FEN1), mRNA.	NM_004111.4	11.69	10.51	-1.18	15.95
ILMN 1753101	VTCN1	V-set domain containing T cell activation inhibitor 1 (VTCN1), mRNA.	NM_024626.2	7.32	5.97	-1.35	15.94
ILMN 1653026	PLAC8	placenta-specific 8 (PLAC8), mRNA.	NM_016619.1	8.89	7.21	-1.68	15.88
ILMN 1803338	CCDC80	coiled-coil domain containing 80 (CCDC80), transcript variant 1, mRNA.	NM_199511.1	7.74	6.23	-1.52	15.88
ILMN 2043079	ILDR1	immunoglobulin-like domain containing receptor 1 (ILDR1), mRNA.	NM_175924.2	8	6.34	-1.67	15.88
ILMN 1658318	LOC120376	PREDICTED: hypothetical protein LOC120376 (LOC120376), mRNA.	XM_943506.2	7.35	5.87	-1.48	15.88
ILMN 2115434	RAB32	RAB32, member RAS oncogene family (RAB32), mRNA.	NM_006834.2	9.83	11.27	1.44	15.86
ILMN 1796455	RYR3	ryanodine receptor 3 (RYR3), mRNA.	NM_001036.2	5.85	7.14	1.29	15.85
ILMN 1698732	PALLD	palladin, cytoskeletal associated protein (PALLD), mRNA.	NM_016081.3	10.3	11.61	1.3	15.84
ILMN 1778237	FN1	fibronectin 1 (FN1), transcript variant 3, mRNA.	NM_002026.2	5.91	7.48	1.57	15.78
ILMN 2077905	PTGFRN	prostaglandin F2 receptor negative regulator (PTGFRN), mRNA.	NM_020440.2	7.58	9.75	2.16	15.78
ILMN 2132599	ANKRD22	ankyrin repeat domain 22 (ANKRD22), mRNA.	NM_144590.1	7.86	5.89	-1.96	15.74
ILMN 1684554	COL16A1	collagen, type XVI, alpha 1 (COL16A1), mRNA.	NM_001856.3	9.47	10.72	1.26	15.73
ILMN 1724832	OVOL2	ovo-like 2 (Drosophila) (OVOL2), mRNA.	NM_021220.2	11.51	10.49	-1.02	15.66
ILMN 1788462	AMD1	adenosylmethionine decarboxylase 1 (AMD1), transcript variant 2, mRNA.	NM_001033059.1	9.09	10.42	1.33	15.65
ILMN 1732609	KIAA1539	KIAA1539 (KIAA1539), mRNA.	NM_025182.2	7.11	8.93	1.82	15.62
ILMN 1736760	KRT16	keratin 16 (focal non-epidermolytic palmoplantar keratoderma) (KRT16), mRNA.	NM_005557.2	9.72	11.35	1.63	15.62
ILMN 1694502	PRIM1	primase, DNA, polypeptide 1 (49kDa) (PRIM1), mRNA.	NM_000946.2	9.06	7.66	-1.4	15.61
ILMN 1772521	MTFHD1L	methylene tetrahydrofolate dehydrogenase (NADP+ dependent) 1-like (MTFHD1L), mRNA.	NM_015440.3	9.15	10.58	1.43	15.59
ILMN 2052208	GADD45A	growth arrest and DNA-damage-inducible, alpha (GADD45A), mRNA.	NM_001924.2	10.46	11.64	1.18	15.5
ILMN 2153837	SCNN1G	sodium channel, nonvoltage-gated 1, gamma (SCNN1G), mRNA.	NM_001039.2	7.38	5.96	-1.42	15.48
ILMN 2391150	FILIP1L	filamin A interacting protein 1-like (FILIP1L), transcript variant 3, mRNA.	NM_001042459.1	7.21	8.69	1.48	15.47
ILMN 2129572	F3	coagulation factor III (thromboplastin, tissue factor) (F3), mRNA.	NM_001993.2	10.78	12.2	1.42	15.42
ILMN 1724040	ANKRD57	ankyrin repeat domain 57 (ANKRD57), mRNA.	NM_023016.3	10.93	12.08	1.15	15.37
ILMN 1756953	GBP6	guanylate binding protein family, member 6 (GBP6), mRNA.	NM_198460.1	9.66	8.11	-1.56	15.33
ILMN 1785699	PTH1H	parathyroid hormone-like hormone (PTH1H), transcript variant 3, mRNA.	NM_198964.1	11.91	13.03	1.12	15.32
ILMN 1774077	GBP2	guanylate binding protein 2, interferon-inducible (GBP2), mRNA.	NM_004120.3	9.81	7.99	-1.82	15.3
ILMN 1786823	ICAM2	intercellular adhesion molecule 2 (ICAM2), transcript variant 1, mRNA.	NM_001099786.1	7.58	9.11	1.53	15.3
ILMN 1798543	STK17B	serine/threonine kinase 17b (STK17B), mRNA.	NM_004226.2	6.27	7.83	1.56	15.27
ILMN 1670672	TMEM37	transmembrane protein 37 (TMEM37), mRNA.	NM_183240.2	7.63	6.08	-1.55	15.24
ILMN 1806818	MCM3	minichromosome maintenance complex component 3 (MCM3), mRNA.	NM_002388.3	9.84	8.4	-1.44	15.22
ILMN 1740415	WFD3	WAP four-disulfide core domain 3 (WFD3), mRNA.	NM_080614.1	8.43	6.37	-2.06	15.16
ILMN 2232177	ACTN1	actinin, alpha 1 (ACTN1), mRNA.	NM_001102.2	11.41	12.98	1.57	15.14
ILMN 1801504	RUNX1	run-related transcription factor 1 (acute myeloid leukemia 1; aml1 oncogene) (RUNX1), transcript variant 1, mRNA.	NM_001754.3	10.15	11.4	1.25	15.12
ILMN 2328029	EXT2	exostosins (multiple) 2 (EXT2), transcript variant 2, mRNA.	NM_207122.1	9.09	10.33	1.24	15.12
ILMN 2286514	GTPBP8	GTP-binding protein 8 (putative) (GTPBP8), transcript variant 1, mRNA.	NM_014170.2	10.92	9.55	-1.37	15.08
ILMN 2184612	C3orf52	chromosome 3 open reading frame 52 (C3orf52), mRNA.	NM_024616.1	8.13	9.62	1.48	15.08
ILMN 1753111	NAMPT	nicotinamide phosphoribosyltransferase (NAMPT), mRNA.	NM_005746.2	8.18	9.39	1.21	15.05
ILMN 1772241	SQLE	squalene epoxidase (SQLE), mRNA.	NM_003129.3	7.91	9.46	1.55	15.03
ILMN 1699631	GATS	opposite strand transcription unit to STAG3 (GATS), mRNA.	NM_178831.4	10.77	9.3	-1.47	14.98
ILMN 1737146	TRAM1	translocation associated membrane protein 1 (TRAM1), mRNA.	NM_014294.4	12.48	13.5	1.02	14.97
ILMN 2228162	KRT16	keratin 16 (focal non-epidermolytic palmoplantar keratoderma) (KRT16), mRNA.	NM_005557.2	10.73	12.69	1.96	14.93
ILMN 2077680	CLDN2	claudin domain containing 2 (CLDN2), mRNA.	NM_152353.1	8.41	7.04	-1.37	14.91
ILMN 1801442	KRT81	keratin 81 (KRT81), mRNA.	NM_002281.2	7.15	8.94	1.78	14.91
ILMN 1726547	MAP3K5	mitogen-activated protein kinase kinase kinase 5 (MAP3K5), mRNA.	NM_005923.3	8.35	6.91	-1.45	14.84
ILMN 1691071	FCRLA	Fc receptor-like A (FCRLA), mRNA.	NM_032738.3	5.77	7.15	1.38	14.84
ILMN 1663035	SREBF1	sterol regulatory element binding transcription factor 1 (SREBF1), transcript variant 1, mRNA.	NM_001005291.1	11.45	10.36	-1.09	14.79
ILMN 1798372	ANXA2P3	annexin A2 pseudogene 3 (ANXA2P3) on chromosome 10.	NR_001446.2	8.13	9.61	1.48	14.79
ILMN 1754272	GINS3	GINS complex subunit 3 (Psf3 homolog) (GINS3), mRNA.	NM_022770.2	9.57	8.45	-1.12	14.76
ILMN 1651964	ABCC5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5 (ABCC5), transcript variant 2, mRNA.	NM_001023587.1	11.39	10.02	-1.37	14.75
ILMN 1767934	PCSK5	proprotein convertase subtilisin/kexin type 5 (PCSK5), mRNA.	NM_006200.2	11.66	10.39	-1.26	14.72

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1807894	SLC7A8	solute carrier family 7 (cationic amino acid transporter, y+ system), member 8 (SLC7A8), transcript variant 2, mRNA.	NM_182728.1	7.99	9.57	1.58	14.72
ILMN_1689004	TNFRSF12A	tumor necrosis factor receptor superfamily, member 12A (TNFRSF12A), mRNA.	NM_016639.1	10.24	12.02	1.78	14.72
ILMN_1687556	DAPL1	death associated protein-like 1 (DAPL1), mRNA.	NM_001017920.1	7.49	5.82	-1.67	14.71
ILMN_1787718	SLC27A1	solute carrier family 27 (fatty acid transporter), member 1 (SLC27A1), mRNA.	NM_198580.1	9.06	7.61	-1.45	14.71
ILMN_1686981	SULF2	sulfatase 2 (SULF2), transcript variant 1, mRNA.	NM_018837.2	8.56	10.23	1.67	14.71
ILMN_1741003	ANXA5	annexin A5 (ANXA5), mRNA.	NM_001154.2	11.04	12.15	1.11	14.71
ILMN_1786197	NR2F1	nuclear receptor subfamily 2, group F, member 1 (NR2F1), mRNA.	NM_005654.4	9.26	7.77	-1.5	14.7
ILMN_2148796	MND1	meiotic nuclear divisions 1 homolog (S. cerevisiae) (MND1), mRNA.	NM_002117.2	7.84	6.6	-1.23	14.67
ILMN_1809695	CAMK2G	calcium/calmodulin-dependent protein kinase (CaM kinase) II gamma (CAMK2G), transcript variant 4, mRNA.	NM_001222.2	10.45	9.41	-1.04	14.66
ILMN_1695397	LOC644151	PREDICTED: similar to calpain 8 (LOC644151), mRNA.	XM_927359.1	8.85	7.52	-1.34	14.65
ILMN_1727135	FIBCD1	fibrinogen C domain containing 1 (FIBCD1), mRNA.	NM_032843.3	7.72	9.03	1.31	14.64
ILMN_1791792	C12orf5	chromosome 12 open reading frame 5 (C12orf5), mRNA.	NM_020375.2	8.27	9.73	1.46	14.63
ILMN_1801307	TNFSF10	tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10), mRNA.	NM_003810.2	12.58	10.69	-1.89	14.62
ILMN_1747934	ISYNA1	myo-inositol 1-phosphate synthase A1 (ISYNA1), mRNA.	NM_016368.3	9.1	7.62	-1.48	14.59
ILMN_1810000	RDH16	retinol dehydrogenase 16 (all-trans) (RDH16), mRNA.	NM_003708.3	7.43	9.26	1.83	14.59
ILMN_1725852	S100A2	S100 calcium binding protein A2 (S100A2), mRNA.	NM_005978.3	11.26	12.73	1.47	14.59
ILMN_1730777	KRT19	keratin 19 (KRT19), mRNA.	NM_002276.3	14.14	12.83	-1.31	14.58
ILMN_1656910	TRIM6	tripartite motif-containing 6 (TRIM6), transcript variant 2, mRNA.	NM_058166.3	9.02	7.54	-1.47	14.57
ILMN_1787378	ADD3	adducin 3 (gamma) (ADD3), transcript variant 1, mRNA.	NM_016824.3	7.89	6.57	-1.32	14.57
ILMN_1735093	TIMELESS	timeless homolog (Drosophila) (TIMELESS), mRNA.	NM_003920.2	9.73	8.66	-1.06	14.56
ILMN_1809566	ZSCAN16	zinc finger and SCAN domain containing 16 (ZSCAN16), mRNA.	NM_025231.1	8.54	7.28	-1.26	14.56
ILMN_1673363	CD97	CD97 molecule (CD97), transcript variant 1, mRNA.	NM_078481.2	9.82	8.62	-1.2	14.54
ILMN_1749398	WFDC11	WAP four-disulfide core domain 11 (WFDC11), mRNA.	NM_147197.2	7.15	5.74	-1.41	14.53
ILMN_1726327	AMY1B	amylase, alpha 1B (salivary) (AMY1B), mRNA.	NM_001008218.1	7.51	9.25	1.73	14.51
ILMN_1663195	MCM7	minichromosome maintenance complex component 7 (MCM7), transcript variant 2, mRNA.	NM_182776.1	12.55	11.51	-1.04	14.49
ILMN_1689431	APCDD1L	adenomatosis polyposis coli down-regulated 1-like (APCDD1L), mRNA.	NM_153360.1	8.37	9.93	1.55	14.49
ILMN_2216157	GNA12	guanine nucleotide binding protein (G protein) alpha 12 (GNA12), mRNA.	NM_007353.2	7.94	8.87	0.92	14.47
ILMN_1814282	ISG20L1	interferon stimulated exonuclease gene 20kDa-like 1 (ISG20L1), mRNA.	NM_022767.2	7.68	9.2	1.52	14.45
ILMN_2400935	TAGLN	tagelin (TAGLN), transcript variant 2, mRNA.	NM_003186.3	6.64	8.56	1.92	14.44
ILMN_1682139	RAI14	retinoic acid induced 14 (RAI14), mRNA.	NM_015577.1	8.54	9.74	1.21	14.44
ILMN_1723418	CEL	carboxyl ester lipase (bile salt-stimulated lipase) (CEL), mRNA.	NM_001807.3	9.22	7.73	-1.5	14.42
ILMN_1710676	FBXO5	F-box protein 5 (FBXO5), mRNA.	NM_012177.2	9.03	7.87	-1.15	14.42
ILMN_1655930	ELL2	elongation factor, RNA polymerase II, 2 (ELL2), mRNA.	NM_012081.4	8.91	10.27	1.36	14.42
ILMN_1789846	ITGB6	integrin, beta 6 (ITGB6), mRNA.	NM_000888.3	5.91	7.64	1.73	14.41
ILMN_1775380	SMOX	spermine oxidase (SMOX), transcript variant 4, mRNA.	NM_175842.1	8.7	9.75	1.06	14.41
ILMN_1668345	OAF	OAF homolog (Drosophila) (OAF), mRNA.	NM_178507.2	9.21	7.87	-1.34	14.4
ILMN_2396020	DUSP6	dual specificity phosphatase 6 (DUSP6), transcript variant 2, mRNA.	NM_022652.2	7.32	9.46	2.14	14.35
ILMN_1723706	GRAMD4	GRAM domain containing 4 (GRAMD4), mRNA.	NM_015124.2	9.06	7.9	-1.16	14.31
ILMN_1667711	HRASL53	HRAS-like suppressor 3 (HRASL53), mRNA.	NM_007069.2	7.51	6.19	-1.33	14.3
ILMN_1746819	C5	complement component 5 (C5), mRNA.	NM_001735.2	10.38	9.14	-1.23	14.3
ILMN_2202423	HELLS	helicase, lymphoid-specific (HELLS), mRNA.	NM_018063.3	8.71	6.9	-1.81	14.29
ILMN_1715715	CEBPA	CCAAT/enhancer binding protein (C/EBP), alpha (CEBPA), mRNA.	NM_004364.2	9.12	7.66	-1.46	14.27
ILMN_1731783	ATP1A1	ATPase, Na+/K+ transporting, alpha 1 polypeptide (ATP1A1), transcript variant 1, mRNA.	NM_000701.6	11.75	10.43	-1.32	14.25
ILMN_1763461	ALDH7A1	aldehyde dehydrogenase 7 family, member A1 (ALDH7A1), mRNA.	NM_001182.2	12.03	10.86	-1.17	14.22
ILMN_1669273	PPT1	palmitoyl-protein thioesterase 1 (ceroid-lipofuscinosis, neuronal 1, infantile) (PPT1), mRNA.	NM_000310.2	12.67	11.45	-1.22	14.18
ILMN_2348975	NASP	nuclear autoantigenic sperm protein (histone-binding) (NASP), transcript variant 2, mRNA.	NM_002482.2	8.95	7.75	-1.2	14.15
ILMN_1852343		cDNA FLJ33551 fis, clone BRAMY2009105		7.49	6.18	-1.31	14.15
ILMN_1749875	LOC728715	PREDICTED: similar to hCG38149 (LOC728715), mRNA.	XM_001128260.1	8.47	6.97	-1.49	14.11
ILMN_1684306	S100A4	S100 calcium binding protein A4 (S100A4), transcript variant 2, mRNA.	NM_019554.2	12.2	10.57	-1.62	14.07
ILMN_1797704	LOC729252	PREDICTED: similar to Keratin, type I cytoskeletal 14 (Cytokeratin-14) (CK-14) (Keratin-14) (LOC729252), mRNA.	XR_015937.1	9.53	11.1	1.57	14.07
ILMN_1690170	CRABP2	cellular retinoic acid binding protein 2 (CRABP2), mRNA.	NM_001878.2	10.6	9.3	-1.29	14.04
ILMN_1734190	TCEAL3	transcription elongation factor A (SII)-like 3 (TCEAL3), transcript variant 1, mRNA.	NM_001006933.1	11.47	12.66	1.2	14.03
ILMN_1683120	UNG	uracil-DNA glycosylase (UNG), transcript variant 1, mRNA.	NM_003362.2	11.01	9.87	-1.14	14.02
ILMN_1715133	IVNS1ABP	influenza virus NS1A binding protein (IVNS1ABP), transcript variant 2, mRNA.	NM_016389.2	6.56	8.16	1.6	14.02
ILMN_1695621	KRT3	keratin 3 (KRT3), mRNA.	NM_057088.2	8	6.89	-1.11	14.01
ILMN_1671486	HOMER2	homer homolog 2 (Drosophila) (HOMER2), transcript variant 3, mRNA.	NM_199331.2	7.56	8.87	1.31	13.98
ILMN_1746801	CGN	cingulin (CGN), mRNA.	NM_020770.1	10.6	9.48	-1.12	13.97
ILMN_1772821	KIAA1671	PREDICTED: KIAA1671 protein (KIAA1671), mRNA.	XM_371461.4	11.37	10.35	-1.02	13.97
ILMN_1727156	ARSI	arylsulfatase family, member I (ARSI), mRNA.	NM_001012301.1	8.2	6.63	-1.56	13.94
ILMN_2410038	FAM111A	family with sequence similarity 111, member A (FAM111A), transcript variant 1, mRNA.	NM_022074.2	10.96	9.9	-1.06	13.93
ILMN_1793474	INSIG1	insulin induced gene 1 (INSIG1), transcript variant 2, mRNA.	NM_198336.1	10.88	12	1.12	13.93
ILMN_1672102	PTPRB	protein tyrosine phosphatase, receptor type, B (PTPRB), mRNA.	NM_002837.2	7.84	9.09	1.26	13.92
ILMN_1777564	MAD2L1	MAD2 mitotic arrest deficient-like 1 (yeast) (MAD2L1), mRNA.	NM_002358.2	8.88	7.68	-1.2	13.91
ILMN_1788213	FRAT2	frequently rearranged in advanced T-cell lymphomas 2 (FRAT2), mRNA.	NM_012083.2	10.79	9.88	-0.91	13.91
ILMN_1694084	PSCD1	pleckstrin homology, Sec7 and coiled-coil domains 1 (cytohesin 1) (PSCD1), transcript variant 2, mRNA.	NM_017456.1	10.71	11.72	1.02	13.91
ILMN_2390310	C17orf91	chromosome 17 open reading frame 91 (C17orf91), transcript variant 2, mRNA.	NM_001001870.1	10.9	12.14	1.24	13.88
ILMN_1706531	ABCC5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5 (ABCC5), transcript variant 1, mRNA.	NM_005688.2	12.17	10.94	-1.23	13.86
ILMN_1769388	GJB2	gap junction protein, beta 2, 26kDa (GJB2), mRNA.	NM_004004.4	7.18	9.25	2.08	13.85
ILMN_1794598	SCHIP1	schwannomin interacting protein 1 (SCHIP1), mRNA.	NM_014575.2	9.07	10.23	1.16	13.84
ILMN_2376771	ATR	ataxia telangiectasia and Rad3 related (ATR), mRNA.	NM_001184.2	8.25	6.51	-1.74	13.8
ILMN_2404385	REPIN1	replication initiator 1 (REPIN1), transcript variant 2, mRNA.	NM_014374.1	12.17	10.98	-1.19	13.8
ILMN_2038777	ACTB	actin, beta (ACTB), mRNA.	NM_001101.2	12.42	13.57	1.16	13.79
ILMN_2396948	PSMC3IP	PSMC3 interacting protein (PSMC3IP), transcript variant 2, mRNA.	NM_016556.1	7.97	6.63	-1.33	13.78
ILMN_1672660	MBP	myelin basic protein (MBP), transcript variant 8, mRNA.	NM_001025100.1	12.27	11.21	-1.07	13.78
ILMN_1772286	OClAD2	OClA domain containing 2 (OClAD2), transcript variant 2, mRNA.	NM_152398.2	10.14	11.19	1.06	13.78
ILMN_1678655	PNLIPRP3	pancreatic lipase-related protein 3 (PNLIPRP3), mRNA.	NM_001011709.1	8.37	6.84	-1.52	13.77
ILMN_1796737	APM-1	PREDICTED: BTB/POZ-zinc finger protein-like (APM-1), mRNA.	XM_113971.4	7.79	6.2	-1.59	13.75
ILMN_1691156	MT1A	metallothionein 1A (MT1A), mRNA.	NM_005946.2	13.8	12.78	-1.02	13.74
ILMN_1790537	C16orf75	chromosome 16 open reading frame 75 (C16orf75), mRNA.	NM_152308.1	9.79	8.61	-1.18	13.72
ILMN_1714167	CYB5A	cytochrome b5 type A (microsomal) (CYB5A), transcript variant 2, mRNA.	NM_001914.2	12	10.98	-1.02	13.72
ILMN_1727592	FRMD5	FERM domain containing 5 (FRMD5), transcript variant 2, mRNA.	NM_032892.2	7.18	8.65	1.47	13.7
ILMN_1900110		BX099724 Soares, fetal liver, spleen, 1NFLS, S1 cDNA clone IMAGp998F201004, mRNA sequence		6.42	7.84	1.42	13.7
ILMN_1718766	MT1F	metallothionein 1F (MT1F), mRNA.	NM_005949.2	11.98	10.96	-1.02	13.68
ILMN_1783285	CTPS	CTP synthase (CTPS), mRNA.	NM_001905.1	8.37	9.61	1.24	13.68
ILMN_1740291	POLQ	polymerase (DNA directed), theta (POLQ), mRNA.	NM_199420.3	9.01	7.57	-1.45	13.62
ILMN_1736834	SKIL	SKI-like oncogene (SKIL), mRNA.	NM_005414.2	6.4	8.14	1.74	13.62
ILMN_1794740	CD151	CD151 molecule (Raph blood group) (CD151), transcript variant 5, mRNA.	NM_001039490.1	8.18	9.71	1.53	13.62
ILMN_2294762	AMY1A	amylase, alpha 1A (salivary) (AMY1A), transcript variant 1, mRNA.	NM_004038.3	9.29	10.75	1.46	13.6
ILMN_1681249	KIF21A	kinesin family member 21A (KIF21A), mRNA.	NM_017641.2	7.83	9.58	1.75	13.59
ILMN_1703123	AXUD1	AXIN1 up-regulated 1 (AXUD1), mRNA.	NM_033027.2	8.78	9.84	1.06	13.56
ILMN_1779252	TRIM22	tripartite motif-containing 22 (TRIM22), mRNA.	NM_006074.3	8.2	6.63	-1.57	13.52
ILMN_1681248	TCHH	trichohyalin (TCHH), mRNA.	NM_007113.2	9.7	8.42	-1.28	13.48
ILMN_2313901	PAM	peptidylglycine alpha-amidating monooxygenase (PAM), transcript variant 3, mRNA.	NM_138821.1	10.51	11.55	1.05	13.48
ILMN_1689306	TMC7	transmembrane channel-like 7 (TMC7), mRNA.	NM_024847.2	8.15	9.4	1.25	13.46
ILMN_2089167	RHOD	ras homolog gene family, member D (RHOD), mRNA.	NM_014578.2	11.68	12.79	1.11	13.46
ILMN_1708340	DAPK1	death-associated protein kinase 1 (DAPK1), mRNA.	NM_004938.2	9.68	8.53	-1.15	13.43
ILMN_1735930	KLF2	Kruppel-like factor 2 (lung) (KLF2), mRNA.	NM_016270.2	7.8	9.27	1.47	13.43
ILMN_1728298	SBK1	SH3-binding domain kinase 1 (SBK1), mRNA.	NM_001024401.2	8.03	6.98	-1.05	13.41
ILMN_1823231		full-length cDNA clone CSDDM012YE14 of Fetal liver of (human)		6.4	7.77	1.37	13.39
ILMN_1714438	MUTYH	mutY homolog (E. coli) (MUTYH), transcript variant gamma2, mRNA.	NM_001048172.1	10.05	8.98	-1.06	13.38
ILMN_1714418	FAM101B	family with sequence similarity 101, member B (FAM101B), mRNA.	NM_182705.2	6.08	7.31	1.23	13.38

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1694106	GPD1L	glycerol-3-phosphate dehydrogenase 1-like (GPD1L), mRNA.	NM_015141.2	10.65	9.47	-1.18	13.37
ILMN_2101526	C7orf24	chromosome 7 open reading frame 24 (C7orf24), mRNA.	NM_024051.2	11.84	10.86	-0.98	13.34
ILMN_1691410	BAMBI	BMP and activin membrane-bound inhibitor homolog (Xenopus laevis) (BAMBI), mRNA.	NM_012342.2	7.54	9.59	2.05	13.34
ILMN_1737462	OXR1	oxidation resistance 1 (OXR1), mRNA.	NM_181354.3	11.31	10.27	-1.04	13.33
ILMN_1672536	FBLN1	fibulin 1 (FBLN1), transcript variant D, mRNA.	NM_006486.2	10.27	9.22	-1.04	13.33
ILMN_1715684	LAMB3	laminin, beta 3 (LAMB3), transcript variant 1, mRNA.	NM_000228.2	12.84	13.86	1.03	13.29
ILMN_2326512	CASP1	caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase) (CASP1), transcript variant delta, mRNA.	NM_033294.2	8.83	7.22	-1.62	13.28
ILMN_1755721	FAM63A	family with sequence similarity 63, member A (FAM63A), transcript variant 1, mRNA.	NM_018379.3	7.27	5.94	-1.32	13.28
ILMN_1795930	PTGER4	prostaglandin E receptor 4 (subtype EP4) (PTGER4), mRNA.	NM_000958.2	6.91	8.16	1.25	13.23
ILMN_1815032	SOX7	SRY (sex determining region Y)-box 7 (SOX7), mRNA.	NM_031439.2	9.9	8.43	-1.46	13.22
ILMN_1814998	FKSG30	actin-like protein (FKSG30), mRNA.	NM_001017421.1	11.49	13.07	1.59	13.21
ILMN_1787815	TRIB3	tribbles homolog 3 (Drosophila) (TRIB3), mRNA.	NM_021158.3	10.44	11.54	1.1	13.19
ILMN_2188264	CYR61	cysteine-rich, angiogenic inducer, 61 (CYR61), mRNA.	NM_001554.3	7.59	10.38	2.79	13.17
ILMN_1796537	FYB	FYN binding protein (FYB-120/130) (FYB), transcript variant 1, mRNA.	NM_001465.3	11.64	9.62	-2.02	13.16
ILMN_2057479	EGFL6	EGF-like-domain, multiple 6 (EGFL6), mRNA.	NM_015507.2	7.48	6.02	-1.46	13.15
ILMN_1678669	RRM2	ribonucleotide reductase M2 polypeptide (RRM2), mRNA.	NM_001034.1	7.71	6.13	-1.58	13.13
ILMN_1777296	ACTB	actin, beta (ACTB), mRNA.	NM_001101.2	13.68	14.66	0.98	13.13
ILMN_1776490	C17orf53	chromosome 17 open reading frame 53 (C17orf53), mRNA.	NM_024032.2	9.66	8.45	-1.21	13.12
ILMN_1663640	MAOA	monoamine oxidase A (MAOA), nuclear gene encoding mitochondrial protein, mRNA.	NM_000240.2	11.63	10.32	-1.31	13.12
ILMN_1699022	ENDOD1	endonuclease domain containing 1 (ENDOD1), mRNA.	NM_015036.1	9.02	10.35	1.33	13.09
ILMN_1731070	ORC6L	origin recognition complex, subunit 6 like (yeast) (ORC6L), mRNA.	NM_014321.2	9.34	8.1	-1.24	13.08
ILMN_2308849	MYADM	myeloid-associated differentiation marker (MYADM), transcript variant 4, mRNA.	NM_001020820.1	10.75	12.03	1.28	13.07
ILMN_2193706	HRK	harakiri, BCL2 interacting protein (contains only BH3 domain) (HRK), mRNA.	NM_003806.1	8.76	7.22	-1.55	13.06
ILMN_1746013	SPOCK1	sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 (SPOCK1), mRNA.	NM_004598.3	7.73	9.16	1.43	13.06
ILMN_2137789	KLF4	Kruppel-like factor 4 (gut) (KLF4), mRNA.	NM_004235.3	7.68	8.85	1.17	13.05
ILMN_2388397	LYPD1	LY6/PLAUR domain containing 1 (LYPD1), transcript variant 2, mRNA.	NM_001077427.2	7.89	9.04	1.15	13.03
ILMN_2125346	MUC16	mucin 16, cell surface associated (MUC16), mRNA.	NM_024690.2	12.21	10.56	-1.65	13
ILMN_1711174	SPRR1B	small proline-rich protein 1B (cornifin) (SPRR1B), mRNA.	NM_003125.2	8.38	10.18	1.79	13
ILMN_2393046	NHLRC3	NHL repeat containing 3 (NHLRC3), transcript variant 2, mRNA.	NM_001017370.1	8.82	7.57	-1.25	12.99
ILMN_1814106	MGC59937	Similar to RIKEN cDNA 2310002J15 gene (MGC59937), mRNA.	NM_199001.1	11.42	10.12	-1.3	12.99
ILMN_1811579	HOMER3	homer homolog 3 (Drosophila) (HOMER3), mRNA.	NM_004838.2	9.24	10.27	1.03	12.99
ILMN_1747067	NPAS1	neuronal PAS domain protein 1 (NPAS1), mRNA.	NM_002517.2	7.76	6.47	-1.29	12.98
ILMN_2120072	FLJ13305	hypothetical protein FLJ13305 (FLJ13305), mRNA. XM_934538 XM_934541 XM_934544 XM_942148 XM_945748 XM_945749 XM_945750 XM_945751 XM_945752 XM_945753 XM_945754 XM_945755 XM_945756 XM_945757 XM_945758 XM_945759 XM_945760 XM_945761 XM_945762 XM_945763 XM_945764 XM_945765 XM_945766 XM_945767 XM_945768 XM_945769 XM_945770 XM_945771 XM_945772 XM_945773 XM_945774 XM_945775 XM_945776 XM_945777 XM_945778 XM_945779 XM_945780 XM_945781 XM_945782 XM_945783 XM_945784 XM_945785 XM_945786 XM_945787 XM_945788 XM_945789 XM_945790 XM_945791 XM_945792 XM_945793 XM_945794 XM_945795 XM_945796 XM_945797 XM_945798 XM_945799 XM_945800 XM_945801 XM_945802 XM_945803 XM_945804 XM_945805 XM_945806 XM_945807 XM_945808 XM_945809 XM_945810 XM_945811 XM_945812 XM_945813 XM_945814 XM_945815 XM_945816 XM_945817 XM_945818 XM_945819 XM_945820 XM_945821 XM_945822 XM_945823 XM_945824 XM_945825 XM_945826 XM_945827 XM_945828 XM_945829 XM_945830 XM_945831 XM_945832 XM_945833 XM_945834 XM_945835 XM_945836 XM_945837 XM_945838 XM_945839 XM_945840 XM_945841 XM_945842 XM_945843 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**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1735495	TBC1D8	TBC1 domain family, member 8 (with GRAM domain) (TBC1D8), mRNA.	NM_007063.3	8.58	7.43	-1.15	12.11
ILMN_179171	SGSM2	small G protein signaling modulator 2 (SGSM2), transcript variant 1, mRNA.	NM_014853.2	12.7	11.74	-0.96	12.11
ILMN_1738546	LOC400578	PREDICTED: similar to Keratin, type I cytoskeletal 14 (Cytokeratin-14) (CK-14) (Keratin-14) (LOC400578), mRNA.	XR_017543.1	8.35	9.86	1.51	12.1
ILMN_2347068	MKNK2	MAP kinase interacting serine/threonine kinase 2 (MKNK2), transcript variant 1, mRNA.	NM_017572.2	12.45	11.52	-0.93	12.09
ILMN_1699856	RALGDS	ral guanine nucleotide dissociation stimulator (RALGDS), transcript variant 1, mRNA.	NM_006266.2	13.2	12.1	-1.1	12.09
ILMN_1781010	ARHGEF3	Rho guanine nucleotide exchange factor (GEF) 3 (ARHGEF3), mRNA.	NM_019555.1	10.44	9.25	-1.19	12.09
ILMN_2388701	ST3GAL5	ST3 beta-galactoside alpha-2,3-sialyltransferase 5 (ST3GAL5), transcript variant 2, mRNA.	NM_001042437.1	6.01	7.47	1.46	12.09
ILMN_1776181	BIRC3	baculoviral IAP repeat-containing 3 (BIRC3), transcript variant 1, mRNA.	NM_001165.3	7.42	6.12	-1.3	12.05
ILMN_1770641	KLHL3	kelch-like 3 (Drosophila) (KLHL3), mRNA.	NM_017415.1	7.49	6.2	-1.29	12.05
ILMN_1683755	SOX13	SRY (sex determining region Y)-box 13 (SOX13), mRNA.	NM_005686.2	9.65	8.63	-1.02	12.04
ILMN_1792409	AMOT	angiomotin (AMOT), transcript variant 2, mRNA.	NM_133265.2	8.83	6.75	-2.08	12.01
ILMN_2307656	AGTRAP	angiotensin II receptor-associated protein (AGTRAP), transcript variant 2, mRNA.	NM_001040194.1	7.02	8.21	1.19	12.01
ILMN_1694075	GADD45A	growth arrest and DNA-damage-inducible, alpha (GADD45A), mRNA.	NM_001924.2	9.51	10.8	1.3	12
ILMN_1874689		primary neuroblastoma cDNA, clone:Nbla10527, full insert sequence		11.31	12.5	1.19	12
ILMN_1781752	CLEC16A	C-type lectin domain family 16, member A (CLEC16A), mRNA.	NM_015226.1	10.45	11.51	1.06	11.99
ILMN_1670145	DFNA5	deafness, autosomal dominant 5 (DFNA5), mRNA.	NM_004403.2	10.98	11.93	0.94	11.99
ILMN_1755620	IER5L	immediate early response 5-like (IER5L), mRNA.	NM_203434.2	7.85	9.08	1.23	11.99
ILMN_2041293	SQLE	squalene epoxidase (SQLE), mRNA.	NM_003129.3	9.87	11.14	1.27	11.98
ILMN_1781745	C9orf152	chromosome 9 open reading frame 152 (C9orf152), mRNA.	NM_001012993.1	7.37	6.19	-1.18	11.96
ILMN_1790228	FURIN	furin (paired basic amino acid cleaving enzyme) (FURIN), mRNA.	NM_002569.2	7.01	8.1	1.09	11.94
ILMN_2383383	PIR	pirin (iron-binding nuclear protein) (PIR), transcript variant 2, mRNA.	NM_001018109.1	11.68	10.55	-1.12	11.93
ILMN_2202967	ARL15	ADP-ribosylation factor-like 15 (ARL15), mRNA.	NM_019087.1	6.58	7.89	1.31	11.93
ILMN_1809613	NGEF	neuronal guanine nucleotide exchange factor (NGEF), mRNA.	NM_019850.1	7.02	8.29	1.28	11.92
ILMN_1752510	FAM13A1	family with sequence similarity 13, member A1 (FAM13A1), transcript variant 2, mRNA.	NM_001015045.1	7.34	6.08	-1.26	11.91
ILMN_1749213	SDF2L1	stromal cell-derived factor 2-like 1 (SDF2L1), mRNA.	NM_022044.2	11.1	12.04	0.94	11.88
ILMN_1763666	ALDH3B2	aldehyde dehydrogenase 3 family, member B2 (ALDH3B2), transcript variant 2, mRNA.	NM_001031615.1	7.76	6.27	-1.49	11.86
ILMN_1675646	FN1	fibronectin 1 (FN1), transcript variant 7, mRNA.	NM_054034.2	5.61	7.27	1.67	11.85
ILMN_1748831	PPP1R13B	protein phosphatase 1, regulatory (inhibitor) subunit 13B (PPP1R13B), mRNA.	NM_015316.2	10.45	9.46	-0.99	11.84
ILMN_1674609	CLTB	clathrin, light chain (Lcb) (CLTB), transcript variant 2, mRNA.	NM_007097.2	11.19	12.75	0.86	11.84
ILMN_1664511	NDC80	NDC80 homolog, kinetochore complex component (S. cerevisiae) (NDC80), mRNA.	NM_006101.1	8.26	6.9	-1.37	11.83
ILMN_2341595	KITLG	KIT ligand (KITLG), transcript variant b, mRNA.	NM_000899.3	8.88	7.58	-1.3	11.78
ILMN_1717326	SLC29A3	solute carrier family 29 (nucleoside transporters), member 3 (SLC29A3), mRNA.	NM_018344.3	8.59	7.47	-1.12	11.78
ILMN_2413899	MCM10	minichromosome maintenance complex component 10 (MCM10), transcript variant 2, mRNA.	NM_018518.3	6.85	5.81	-1.04	11.77
ILMN_1700306	OClAD2	OClA domain containing 2 (OClAD2), transcript variant 1, mRNA.	NM_001014446.1	11.82	12.6	0.77	11.76
ILMN_1702496	LOC441461	PREDICTED: hypothetical gene supported by BC030123 (LOC441461), mRNA.	XM_499157.3	7.23	6.03	-1.2	11.75
ILMN_1752269	ACSS1	acyl-CoA synthetase short-chain family member 1 (ACSS1), nuclear gene encoding mitochondrial protein, mRNA.	NM_032501.2	7.1	5.96	-1.14	11.75
ILMN_1682929	SYTL2	synaptotagmin-like 2 (SYTL2), transcript variant d, mRNA.	NM_206928.1	7.23	6.08	-1.16	11.74
ILMN_1750664	PPT2	palmitoyl-protein thioesterase 2 (PPT2), transcript variant 2, mRNA.	NM_138717.1	7.56	6.38	-1.17	11.73
ILMN_1656285	METTL7A	methyltransferase like 7A (METTL7A), mRNA.	NM_014033.3	9.17	7.65	-1.52	11.71
ILMN_1775486	SSPN	sarcomin (Kras oncogene-associated gene) (SSPN), mRNA.	NM_005086.3	8.94	7.66	-1.29	11.71
ILMN_2331544	MBP	myelin basic protein (MBP), transcript variant 7, mRNA.	NM_001025101.1	9.94	8.67	-1.28	11.69
ILMN_2383300	PTPRU	protein tyrosine phosphatase, receptor type, U (PTPRU), transcript variant 3, mRNA.	NM_005704.3	8.38	7.12	-1.26	11.68
ILMN_1791726	TUBB3	tubulin, beta 3 (TUBB3), mRNA.	NM_006086.2	10.77	11.79	1.02	11.68
ILMN_1680774	LOC730994	PREDICTED: similar to NACHT, leucine rich repeat and PYD (pyrin domain) containing 1, transcript variant 1 (LOC730994), mRNA.	XM_001132373.1	6.75	8.06	1.32	11.67
ILMN_1663119	DSC2	desmocollin 2 (DSC2), transcript variant Dsc2b, mRNA.	NM_004949.2	10.99	12.01	1.02	11.66
ILMN_1809522	BTBD14A	BTB (POZ) domain containing 14A (BTBD14A), mRNA.	NM_144653.3	9.05	10.03	0.98	11.66
ILMN_1777190	CFD	complement factor D (adipsin) (CFD), mRNA.	NM_001928.2	8.65	7.43	-1.22	11.65
ILMN_1709820	AOAH	acyloxylacyl hydrolase (neutrophil) (AOAH), mRNA.	NM_001637.1	7.33	6.14	-1.19	11.65
ILMN_1794017	SERTAD1	SERTA domain containing 1 (SERTAD1), mRNA.	NM_013376.3	9.19	10.1	0.9	11.65
ILMN_2389399	MBP	myelin basic protein (MBP), transcript variant 3, mRNA.	NM_001025090.1	10.35	9.18	-1.17	11.63
ILMN_1796755	ITGB5	integrin, beta 5 (ITGB5), mRNA. XM_944688 XM_944693	NM_002213.3	8.34	9.41	1.07	11.62
ILMN_1745397	OAS3	2'-5'-oligoadenylate synthetase 3, 100kDa (OAS3), mRNA.	NM_006187.2	8.71	7.19	-1.52	11.61
ILMN_1814526	ADD3	adducin 3 (gamma) (ADD3), transcript variant 3, mRNA.	NM_001121.2	9.84	8.6	-1.24	11.6
ILMN_1679133	SERPINB1	serpin peptidase inhibitor, clade B (ovalbumin), member 1 (SERPINB1), mRNA.	NM_030666.2	9.54	8.38	-1.16	11.6
ILMN_1695414	ASF1B	ASF1 anti-silencing function 1 homolog B (S. cerevisiae) (ASF1B), mRNA.	NM_018154.2	8.28	6.63	-1.65	11.59
ILMN_1782070	NPL	N-acetylneuraminate pyruvate lyase (dihydrodipicolinate synthase) (NPL), mRNA.	NM_030769.1	8.16	7.07	-1.09	11.59
ILMN_2399919	MLXIPL	MLX interacting protein-like (MLXIPL), transcript variant 3, mRNA.	NM_032953.2	7.58	6.47	-1.11	11.59
ILMN_1745223	CDC42EP4	CDC42 effector protein (Rho GTPase binding) 4 (CDC42EP4), mRNA.	NM_012121.4	11.25	10.35	-0.9	11.59
ILMN_1686664	MT2A	metallothionein 2A (MT2A), mRNA.	NM_005953.2	14.04	13.14	-0.9	11.59
ILMN_2414325	TNFAIP8	tumor necrosis factor, alpha-induced protein 8 (TNFAIP8), transcript variant 2, mRNA.	NM_001077654.1	8.8	9.85	1.04	11.59
ILMN_1673113	F2RL1	coagulation factor II (thrombin) receptor-like 1 (F2RL1), mRNA.	NM_005242.3	9.13	10.06	0.93	11.57
ILMN_1687768	NCOA7	nuclear receptor coactivator 7 (NCOA7), mRNA.	NM_181782.2	11.57	10.51	-1.06	11.56
ILMN_1765208	GLUL	glutamate-ammonia ligase (glutamine synthetase) (GLUL), transcript variant 3, mRNA.	NM_001033056.1	8.56	7.24	-1.32	11.55
ILMN_1758250	TRAFD1	TRAF-type zinc finger domain containing 1 (TRAFD1), mRNA.	NM_006700.1	10.14	8.8	-1.34	11.54
ILMN_1676413	VSNL1	visinin-like 1 (VSNL1), mRNA.	NM_003385.4	10.88	9.9	-0.99	11.54
ILMN_2173611	MT1E	metallothionein 1E (MT1E), mRNA.	NM_175617.3	13.7	12.89	-0.81	11.53
ILMN_1815102	LCAT	lecithin:cholesterol acyltransferase (LCAT), mRNA.	NM_000229.1	7.23	8.48	1.25	11.53
ILMN_2328986	SREBF1	sterol regulatory element binding transcription factor 1 (SREBF1), transcript variant 2, mRNA.	NM_004176.3	9.86	8.81	-1.04	11.52
ILMN_2060413	CD24	CD24 molecule (CD24), mRNA.	NM_013230.2	14.03	14.86	0.82	11.51
ILMN_2085862	SLC15A3	solute carrier family 15, member 3 (SLC15A3), mRNA.	NM_016582.1	7.87	6.77	-1.1	11.49
ILMN_1744023	MGC18216	PREDICTED: hypothetical protein MGC18216 (MGC18216), mRNA.	XM_927732.1	9.96	11.03	1.07	11.48
ILMN_1741780	DUSP28	dual specificity phosphatase 28 (DUSP28), mRNA.	NM_001033575.1	9.4	8.53	-0.88	11.47
ILMN_1858599		AV652851 GLC cDNA clone GLCDEG06 3, mRNA sequence		7.48	6.16	-1.32	11.47
ILMN_1735014	KLF6	Kruppel-like factor 6 (KLF6), transcript variant 2, mRNA.	NM_001300.4	10.75	11.86	1.11	11.47
ILMN_1701204	VEGFC	vascular endothelial growth factor C (VEGFC), mRNA.	NM_005429.2	6.48	7.58	1.1	11.47
ILMN_1801246	IFITM1	interferon induced transmembrane protein 1 (9-27) (IFITM1), mRNA.	NM_003641.3	10.93	9.84	-1.08	11.45
ILMN_1745570	KLK7	kallikrein-related peptidase 7 (KLK7), transcript variant 1, mRNA.	NM_005046.2	11.26	10.21	-1.05	11.45
ILMN_2183510	ARMET	arginine-rich, mutated in early stage tumors (ARMET), mRNA.	NM_006010.2	10.97	11.88	0.91	11.45
ILMN_1668236	KCNB2	potassium voltage-gated channel, Shab-related subfamily, member 2 (KCNB2), mRNA.	NM_004770.2	7.06	5.88	-1.18	11.44
ILMN_1754757	SCNN1D	sodium channel, nonvoltage-gated 1, delta (SCNN1D), mRNA.	NM_002978.2	8.34	7.26	-1.08	11.44
ILMN_1785284	ALDH6A1	aldehyde dehydrogenase 6 family, member A1 (ALDH6A1), nuclear gene encoding mitochondrial protein, mRNA.	NM_005589.2	9.48	8.53	-0.95	11.43
ILMN_1752520	SLFN11	schlafen family member 11 (SLFN11), mRNA.	NM_152270.2	8.39	7.29	-1.1	11.42
ILMN_1745076	CLINT1	clathrin interactor 1 (CLINT1), mRNA.	NM_014666.2	11.1	10.05	-1.06	11.4
ILMN_1668863	LYPD1	LY6/PLAUR domain containing 1 (LYPD1), transcript variant 1, mRNA.	NM_144586.5	8.8	10.18	1.38	11.4
ILMN_2326713	CD151	CD151 molecule (Raph blood group) (CD151), transcript variant 2, mRNA.	NM_139030.3	13.79	14.64	0.86	11.4
ILMN_2094061	IMPA2	inositol(myo)-1(or 4)-monophosphatase 2 (IMPA2), mRNA.	NM_014214.1	10.31	9.37	-0.94	11.39
ILMN_2367070	ACOT9	acyl-CoA thioesterase 9 (ACOT9), transcript variant 1, mRNA.	NM_001037171.1	8.41	9.48	1.06	11.39
ILMN_1662587	PNPLA7	patatin-like phospholipase domain containing 7 (PNPLA7), mRNA.	NM_152286.2	8.56	7.38	-1.18	11.34
ILMN_1784948	SPOCD1	SPOC domain containing 1 (SPOCD1), mRNA.	NM_144569.4	7.27	8.56	1.29	11.34
ILMN_1837428		clone 25194 mRNA sequence		10.62	9.51	-1.1	11.33
ILMN_2371379	ACLY	ATP citrate lyase (ACLY), transcript variant 2, mRNA.	NM_198830.1	11.52	12.57	1.06	11.33
ILMN_2314169	PTH1H	parathyroid hormone-like hormone (PTH1H), transcript variant 1, mRNA.	NM_198965.1	12.93	13.92	1	11.32
ILMN_2350574	MYADM	myeloid-associated differentiation marker (MYADM), transcript variant 2, mRNA.	NM_138373.3	7.4	8.92	1.51	11.32
ILMN_1865056		Homo sapiens, clone IMAGE:5241654, mRNA		7.34	6.31	-1.03	11.3
ILMN_1724789	CD59	CD59 molecule, complement regulatory protein (CD59), transcript variant 2, mRNA.	NM_000611.4	9.28	10.42	1.13	11.3
ILMN_2088124	TMEM154	transmembrane protein 154 (TMEM154), mRNA.	NM_152680.1	10.4	11.43	1.03	11.3
ILMN_1720710	HSPB3	heat shock 27kDa protein 3 (HSPB3), mRNA.	NM_006308.1	9.77	10.88	1.11	11.29
ILMN_1766658	PKMYT1	protein kinase, membrane associated tyrosine/threonine 1 (PKMYT1), transcript variant 2, mRNA.	NM_182687.1	8.01	6.85	-1.16	11.28
ILMN_2349393	MDK	midkine (neurite growth-promoting factor 2) (MDK), transcript variant 1, mRNA.	NM_001012334.1	11.88	10.89	-1	11.27
ILMN_1742789	LPXN	leupaxin (LPXN), mRNA.	NM_004811.1	8.96	7.96	-1	11.26
ILMN_1725193	IGFBP2	insulin-like growth factor binding protein 2, 36kDa (IGFBP2), mRNA.	NM_000597.2	7.69	6.35	-1.34	11.25

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN 1771841	FOSL1	FOS-like antigen 1 (FOSL1), mRNA.	NM 005438.2	6.22	7.65	1.43	11.25
ILMN 2149164	SFRP1	secreted frizzled-related protein 1 (SFRP1), mRNA.	NM 003012.3	6.08	7.13	1.05	11.24
ILMN 1749478	TCEAL3	transcription elongation factor A (SII)-like 3 (TCEAL3), transcript variant 2, mRNA.	NM 032926.2	10.28	11.46	1.18	11.24
ILMN 1678805	POMT2	protein-O-mannosyltransferase 2 (POMT2), mRNA.	NM 013382.3	8.64	9.55	0.92	11.22
ILMN 1760990	SH3GL3	SH3-domain GRB2-like 3 (SH3GL3), mRNA.	NM 003027.2	5.96	6.89	0.93	11.22
ILMN 1658995	ACOT9	acyl-CoA thioesterase 9 (ACOT9), transcript variant 2, mRNA.	NM 001033583.2	10.23	11.18	0.95	11.21
ILMN 2052871	TMEM116	transmembrane protein 116 (TMEM116), mRNA.	NM 138341.1	8.74	7.67	-1.07	11.2
ILMN 2316236	HOPX	HOP homeobox (HOPX), transcript variant 3, mRNA.	NM 139212.2	7.39	6.08	-1.31	11.19
ILMN 2206474	C20orf39	chromosome 20 open reading frame 39 (C20orf39), mRNA.	NM 024893.1	6.15	7.17	1.01	11.17
ILMN 2410826	OAS1	2',5'-oligoadenylate synthetase 1, 40/46kDa (OAS1), transcript variant 3, mRNA.	NM 001032409.1	7.99	6.35	-1.63	11.16
ILMN 2311278	ADD3	adducin 3 (gamma) (ADD3), transcript variant 3, mRNA.	NM 001121.2	8.54	6.84	-1.7	11.16
ILMN 1680591	RTKN	rhotekin (RTKN), transcript variant 2, mRNA.	NM 033046.2	11.21	12.19	0.98	11.16
ILMN 1683905	C19orf21	chromosome 19 open reading frame 21 (C19orf21), mRNA.	NM 173481.2	8.23	9.3	1.07	11.16
ILMN 1671906	MND1	meiotic nuclear divisions 1 homolog (S. cerevisiae) (MND1), mRNA.	NM 032117.2	7.26	6.03	-1.22	11.15
ILMN 1768558	LOC727848	PREDICTED: similar to actin-like protein (LOC727848), mRNA.	XM 001125941.1	6.95	8.18	1.23	11.15
ILMN 1738093	TMEM118	transmembrane protein 118 (TMEM118), mRNA.	NM 032814.2	7.87	6.98	-0.9	11.12
ILMN 1719236	CDH5	cadherin 5, type 2, VE-cadherin (vascular epithelium) (CDH5), mRNA.	NM 001795.2	6.77	5.78	-0.98	11.12
ILMN 1727459	ORC1L	origin recognition complex, subunit 1-like (yeast) (ORC1L), mRNA.	NM 004153.2	7.26	6.13	-1.12	11.11
ILMN 1721354	KRT6B	keratin 6B (KRT6B), mRNA.	NM 005555.3	7.51	8.83	1.32	11.11
ILMN 1791580	FXYD3	FXYD domain containing ion transport regulator 3 (FXYD3), transcript variant 1, mRNA.	NM 005971.2	10.65	9.64	-1.02	11.1
ILMN 2241124	GPR110	G protein-coupled receptor 110 (GPR110), transcript variant 1, mRNA.	NM 153840.2	8.71	7.41	-1.3	11.1
ILMN 1655347	SCGB1A1	secretoglobulin, family 1A, member 1 (uteroglobulin) (SCGB1A1), mRNA.	NM 003357.3	12.03	10.08	-1.96	11.08
ILMN 1688372	C3orf17	chromosome 3 open reading frame 17 (C3orf17), transcript variant 2, mRNA.	NM 001025072.2	8.02	9.35	1.33	11.08
ILMN 2343047	ABCB9	ATP-binding cassette, sub-family B (MDR/TAP), member 9 (ABCB9), transcript variant 2, mRNA.	NM 019624.2	8.06	6.89	-1.17	11.06
ILMN 2398107	ASNS	asparagine synthetase (ASNS), transcript variant 1, mRNA.	NM 133436.1	7.16	9.25	2.08	11.06
ILMN 1709484	BLM	Bloom syndrome (BLM), mRNA.	NM 000057.2	7.8	6.6	-1.19	11.04
ILMN 1793572	C21orf81	chromosome 21 open reading frame 81 (C21orf81), mRNA.	NM 153750.1	9.75	8.55	-1.2	11.01
ILMN 1857335		cDNA FLJ35432 fis, clone SMINT2002311		9.35	8.14	-1.21	11.01
ILMN 1682738	SMAD3	SMAD family member 3 (SMAD3), mRNA.	NM 005902.3	11.48	10.54	-0.94	11
ILMN 2371458	CXCR7	chemokine (C-X-C motif) receptor 7 (CXCR7), transcript variant 1, mRNA.	NM 001047841.1	10.16	11.31	1.15	10.99
ILMN 1720704	C19orf51	chromosome 19 open reading frame 51 (C19orf51), mRNA.	NM 178837.3	9.64	8.77	-0.87	10.98
ILMN 1708064	MAP4	microtubule-associated protein 4 (MAP4), transcript variant 1, mRNA.	NM 002375.3	6.84	7.98	1.14	10.98
ILMN 2136089	MTE	metallothionein E (MTE), mRNA.	NM 175621.2	11.29	10.4	-0.89	10.97
ILMN 1780132	PELI2	pellino homolog 2 (Drosophila) (PELI2), mRNA.	NM 021255.2	7.98	6.41	-1.57	10.97
ILMN 1797277	KIF3C	kinesin family member 3C (KIF3C), mRNA.	NM 002254.6	6.19	7.37	1.18	10.97
ILMN 1819384	AGENCOURT	14535501 NIH_MGC_191 cDNA clone IMAGE:30415823 5, mRNA sequence		7.23	8.72	1.49	10.95
ILMN 2405470	KLHDC9	kelch domain containing 9 (KLHDC9), transcript variant 2, mRNA.	NM 001007255.1	8.22	6.95	-1.27	10.94
ILMN 1773963	GNA15	guanine nucleotide binding protein (G protein), alpha 15 (Gq class) (GNA15), mRNA.	NM 002068.1	10.58	11.5	0.92	10.94
ILMN 1812526	TGFb2	transforming growth factor, beta 2 (TGFb2), mRNA.	NM 003238.1	6.2	7.37	1.17	10.92
ILMN 1690523	LRRC20	leucine rich repeat containing 20 (LRRC20), transcript variant 2, mRNA.	NM 018239.2	9.22	8.07	-1.15	10.91
ILMN 2206272	D2HGDH	D-2-hydroxyglutarate dehydrogenase (D2HGDH), nuclear gene encoding mitochondrial protein, mRNA.	NM 152783.3	11.78	10.89	-0.9	10.89
ILMN 1706610	PLEKHA9	pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 9 (PLEKHA9), mRNA.	NM 015899.1	8.78	9.76	0.98	10.89
ILMN 1653180	TPM4	tropomyosin 4 (TPM4), mRNA.	NM 003290.1	8.78	10.08	1.3	10.89
ILMN 1745807	TMEM62	transmembrane protein 62 (TMEM62), mRNA.	NM 024956.3	9.72	8.84	-0.87	10.87
ILMN 2368718	CENPM	centromere protein M (CENPM), transcript variant 2, mRNA.	NM 001002876.1	8.66	7.62	-1.04	10.86
ILMN 1691731	PARP14	poly (ADP-ribose) polymerase family, member 14 (PARP14), mRNA.	NM 017554.1	8.66	7.62	-1.04	10.84
ILMN 1813840	AOE2	amine oxidase (flavin containing) domain 2 (AOE2), transcript variant 2, mRNA.	NM 015013.2	11.34	10.58	-0.76	10.84
ILMN 1801216	S100P	S100 calcium binding protein P (S100P), mRNA.	NM 005980.2	7.45	8.71	1.26	10.84
ILMN 1775759	NRAS	neuroblastoma RAS viral (v-ras) oncogene homolog (NRAS), mRNA.	NM 002524.2	8.26	9.3	1.04	10.81
ILMN 1750596	CLUAP1	clusterin associated protein 1 (CLUAP1), transcript variant 2, mRNA.	NM 024793.1	9.25	8.06	-1.19	10.8
ILMN 1718152	DEPDC7	DEP domain containing 7 (DEPDC7), transcript variant 2, mRNA.	NM 139160.2	7.06	8.25	1.19	10.8
ILMN 1728742	C5orf4	chromosome 5 open reading frame 4 (C5orf4), transcript variant 2, mRNA.	NM 032385.3	6.89	5.79	-1.1	10.79
ILMN 1712708	TRIM47	tripartite motif-containing 47 (TRIM47), mRNA.	NM 033452.2	7.6	9.21	1.62	10.79
ILMN 1815666	ATP2A2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2 (ATP2A2), transcript variant 1, mRNA.	NM 170665.2	9.44	10.62	1.19	10.78
ILMN 1655884	ATP2A2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2 (ATP2A2), transcript variant 1, mRNA.	NM 170665.2	8.92	10.12	1.2	10.78
ILMN 1765578	TIPARP	TCDL-inducible poly(ADP-ribose) polymerase (TIPARP), mRNA.	NM 015508.3	10.89	11.94	1.04	10.77
ILMN 1736939	UGCG	UDP-glucose ceramide glucosyltransferase (UGCG), mRNA.	NM 003358.1	10.78	9.7	-1.08	10.74
ILMN 1776519	RAP1GAP	RAP1 GTPase activating protein (RAP1GAP), mRNA.	NM 002885.1	11.04	10.17	-0.86	10.73
ILMN 1789058	C1orf188	chromosome 1 open reading frame 188 (C1orf188), mRNA.	NM 173795.2	9.4	8.29	-1.11	10.7
ILMN 1652237	CBR3	carbonyl reductase 3 (CBR3), mRNA.	NM 001236.3	10.56	8.99	-1.57	10.7
ILMN 1654268	HMGB2	high-mobility group box 2 (HMGB2), mRNA.	NM 002129.2	9.49	8.26	-1.23	10.7
ILMN 1718968	MT1E	metallothionein 1E (functional) (MT1E), mRNA.	NM 175617.2	7.37	6.39	-0.98	10.7
ILMN 1806733	COL18A1	collagen, type XVIII, alpha 1 (COL18A1), transcript variant 2, mRNA.	NM 130445.2	9.56	10.61	1.04	10.69
ILMN 1829916		Homo sapiens, clone IMAGE:3446976, mRNA		5.78	7.09	1.31	10.69
ILMN 1656452	C16orf59	chromosome 16 open reading frame 59 (C16orf59), mRNA.	NM 025108.2	8.59	7.32	-1.26	10.68
ILMN 1683146	FTH1	ferritin, heavy polypeptide 1 (FTH1), mRNA.	NM 002032.2	12.99	12.18	-0.81	10.68
ILMN 2134056	SOX7	SRY (sex determining region Y)-box 7 (SOX7), mRNA.	NM 031439.2	9.6	8.36	-1.24	10.66
ILMN 1657679	VAV3	vav 3 guanine nucleotide exchange factor (VAV3), transcript variant 1, mRNA.	NM 006113.4	10.03	8.47	-1.56	10.65
ILMN 1743232	MICALCL	MICAL C-terminal like (MICALCL), mRNA.	NM 032867.2	7.66	8.9	1.24	10.65
ILMN 2383163	DEPDC7	DEP domain containing 7 (DEPDC7), transcript variant 1, mRNA.	NM 001077242.1	6.88	8.2	1.32	10.63
ILMN 1698934	CMTM7	CKLF-like MARVEL transmembrane domain containing 7 (CMTM7), transcript variant 2, mRNA.	NM 181472.1	10.63	11.58	0.96	10.62
ILMN 1679949	SLC25A23	solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 23 (SLC25A23), nuclear gene encoding mitochondrial protein, mRNA.	NM 024103.2	11.83	11.02	-0.81	10.61
ILMN 2358541	RBMS1	RNA binding motif, single stranded interacting protein 1 (RBMS1), transcript variant 3, mRNA.	NM 002897.3	8.2	9.23	1.03	10.61
ILMN 1762606	AQP11	aquaporin 11 (AQP11), mRNA.	NM 173039.1	7.73	6.66	-1.07	10.6
ILMN 1795822	DIS3L	DIS3 mitotic control homolog (S. cerevisiae)-like (DIS3L), mRNA.	NM 133375.2	11.17	10.41	-0.76	10.6
ILMN 2215640	TUBA3D	tubulin, alpha 3d (TUBA3D), mRNA.	NM 080386.1	7.51	8.81	1.3	10.6
ILMN 1798808	FOXH1	forkhead box H1 (FOXH1), mRNA.	NM 003923.1	6.96	8.01	1.04	10.6
ILMN 1666445	CAMK2A	calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha (CAMK2A), transcript variant 2, mRNA.	NM 171825.1	7.33	6.15	-1.18	10.57
ILMN 2048700	ATAD2	ATPase family, AAA domain containing 2 (ATAD2), mRNA.	NM 014109.2	8.59	7.1	-1.49	10.56
ILMN 1775566	ATP1A1	ATPase, Na+/K+ transporting, alpha 1 polypeptide (ATP1A1), transcript variant 1, mRNA.	NM 000701.6	10.58	9.36	-1.22	10.56
ILMN 1810420	DYSF	dysferlin, limb girdle muscular dystrophy 2B (autosomal recessive) (DYSF), mRNA.	NM 003494.2	7.04	8.36	1.32	10.56
ILMN 1679837	SGPP1	sphingosine-1-phosphate phosphatase 1 (SGPP1), mRNA.	NM 030791.2	7.98	6.68	-1.29	10.55
ILMN 1658847	MGC61598	PREDICTED: similar to ankryrin-repeat protein Nrarp (MGC61598), mRNA.	XM 939432.1	10.06	8.95	-1.11	10.55
ILMN 1761259	EXT2	exostosins (multiple) 2 (EXT2), transcript variant 1, mRNA.	NM 000401.2	10.05	11.02	0.98	10.55
ILMN 1805792	TRIO	triple functional domain (PTPRF interacting) (TRIO), mRNA.	NM 007118.2	7.18	8.4	1.21	10.55
ILMN 1708375	IRF1	interferon regulatory factor 1 (IRF1), mRNA.	NM 002198.1	11.04	10.06	-0.97	10.52
ILMN 1741440	SLC35A1	solute carrier family 35 (CMP-sialic acid transporter), member A1 (SLC35A1), mRNA.	NM 006416.3	10.17	9.14	-1.03	10.51
ILMN 2041190	F2RL1	coagulation factor II (thrombin) receptor-like 1 (F2RL1), mRNA.	NM 005242.3	10.31	11.2	0.88	10.51
ILMN 1668814	CENPM	centromere protein M (CENPM), transcript variant 1, mRNA.	NM 024053.3	7.57	6.33	-1.24	10.5
ILMN 2153679	TBC1D38	TBC1 domain family, member 38 (TBC1D38), mRNA.	NM 001001417.4	8	6.93	-1.08	10.5
ILMN 2261076	NEDD9	neural precursor cell expressed, developmentally down-regulated 9 (NEDD9), transcript variant 1, mRNA.	NM 006403.2	9.24	10.47	1.24	10.49
ILMN 1687721	PROC	protein C (inactivator of coagulation factors Va and VIIIa) (PROC), mRNA.	NM 000312.1	9.06	10.11	1.05	10.49
ILMN 1803745	SUOX	sulfite oxidase (SUOX), nuclear gene encoding mitochondrial protein, transcript variant 1, mRNA.	NM 000456.2	10.84	10.11	-0.73	10.46
ILMN 1659215	CYP4B1	cytochrome P450, family 4, subfamily B, polypeptide 1 (CYP4B1), transcript variant 2, mRNA.	NM 000779.3	6.84	5.78	-1.06	10.45
ILMN 1791826	RAB25	RAB25, member RAS oncogene family (RAB25), mRNA.	NM 020387.2	11.71	11.01	-0.7	10.44
ILMN 1683470	TMEM139	transmembrane protein 139 (TMEM139), mRNA.	NM 153345.1	7.96	6.97	-0.99	10.44
ILMN 1689842	SC4MOL	sterol-C4-methyl oxidase-like (SC4MOL), transcript variant 1, mRNA.	NM 006743.5	8.76	10.35	1.59	10.42
ILMN 1715384	B3GNT6	UDP-GlcNAc:betaGal beta-1,3-N-acetylglucosaminyltransferase 6 (B3GNT6), mRNA.	NM 006876.1	8.7	7.58	-1.12	10.4
ILMN 1713952	C1orf106	chromosome 1 open reading frame 106 (C1orf106), mRNA.	NM 018265.1	11.33	12.28	0.95	10.39
ILMN 1815023	PIM1	pim-1 oncogene (PIM1), mRNA.	NM 002648.2	9.19	10.06	0.86	10.39
ILMN 1659761	SNX29	sorting nexin 29 (SNX29), mRNA.	NM 001080530.2	9.12	9.99	0.87	10.39

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1880611		df27f11.w1 Morton Fetal Cochlea cDNA clone IMAGE:2484644 3, mRNA sequence		6.15	7.21	1.06	10.38
ILMN_1770922	TMEM45A	transmembrane protein 45A (TMEM45A), mRNA.	NM_018004.1	8.08	9.17	1.09	10.37
ILMN_1683494	TMEM154	transmembrane protein 154 (TMEM154), mRNA.	NM_152680.1	8.27	9.28	1.02	10.36
ILMN_1699695	TNFRSF21	tumor necrosis factor receptor superfamily, member 21 (TNFRSF21), mRNA.	NM_014452.3	11.63	12.78	1.15	10.32
ILMN_1764082	MBOAT1	membrane bound O-acyltransferase domain containing 1 (MBOAT1), mRNA.	NM_001080480.1	9.74	8.68	-1.06	10.31
ILMN_1764629	SLC39A14	solute carrier family 39 (zinc transporter), member 14 (SLC39A14), mRNA.	NM_015359.2	8.9	10.02	1.12	10.3
ILMN_1868583		CHR90153 Chromosome 9 exon II cDNA clone P94_106 5' and 3', mRNA sequence		6.87	5.96	-0.91	10.29
ILMN_1664861	ID1	inhibitor of DNA binding 1, dominant negative helix-loop-helix protein (ID1), transcript variant 2, mRNA.	NM_181353.1	11.45	10.41	-1.04	10.28
ILMN_2397750	IVNS1ABP	influenza virus NS1A binding protein (IVNS1ABP), mRNA.	NM_006469.4	8.9	10.73	1.83	10.27
ILMN_2140974	TPM4	tropomyosin 4 (TPM4), mRNA.	NM_003290.1	8.51	9.77	1.27	10.26
ILMN_1696403	LOC645287	PREDICTED: similar to Group X secretory phospholipase A2 precursor (Phosphatidylcholine 2-acylhydrolase GX) (GX sPLA2) (SPLA2-10), transcript variant 1, mRNA.	NM_928331.1	6.85	5.77	-1.08	10.25
ILMN_1719664	PTPN21	protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA.	NM_007039.3	6.84	7.87	1.03	10.25
ILMN_1691930	CBX6	chromobox homolog 6 (CBX6), mRNA.	NM_014292.3	11.05	10.09	-0.96	10.24
ILMN_2298301	BNC1	basonuclin 1 (BNC1), mRNA.	NM_001717.2	8.48	9.68	1.2	10.23
ILMN_2141790	HYOU1	hypoxia up-regulated 1 (HYOU1), mRNA.	NM_006389.2	7.45	8.5	1.06	10.22
ILMN_1655261	ERP27	endoplasmic reticulum protein 27 kDa (ERP27), mRNA.	NM_152321.1	6.81	5.81	-1	10.21
ILMN_2355042	CLUAP1	clusterin associated protein 1 (CLUAP1), transcript variant 1, mRNA.	NM_015041.1	9.6	8.67	-0.93	10.21
ILMN_1731358	ZNF532	zinc finger protein 532 (ZNF532), mRNA.	NM_018181.4	8.84	9.79	0.94	10.21
ILMN_1782141	GRHL3	grainyhead-like 3 (Drosophila) (GRHL3), transcript variant 1, mRNA.	NM_021180.2	7.72	6.48	-1.24	10.17
ILMN_1783253	DDX12	PREDICTED: DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 12 (CHL1-like helicase homolog, S. cerevisiae), transcript variant 4 (DDX12), transcript variant 1, mRNA.	NM_031833.1	7.61	6.51	-1.09	10.16
ILMN_1744820	ITGB1	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12) (ITGB1), transcript variant 1D, mRNA.	NM_033668.1	11.02	12.14	1.12	10.16
ILMN_2401344	PPP2R2C	protein phosphatase 2 (formerly 2A), regulatory subunit B, gamma isoform (PPP2R2C), transcript variant 2, mRNA.	NM_181876.2	7.51	8.46	0.95	10.16
ILMN_1784454	ITGB1	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12) (ITGB1), transcript variant 1E, mRNA.	NM_133376.1	6.82	8.11	1.29	10.16
ILMN_2393341	LIAS	lipic acid synthetase (LIAS), nuclear gene encoding mitochondrial protein, transcript variant 2, mRNA.	NM_194451.1	7.67	6.69	-0.98	10.15
ILMN_1771652	BAIAP2L2	BAI1-associated protein 2-like 2 (BAIAP2L2), mRNA.	NM_025045.4	8.98	8.19	-0.78	10.12
ILMN_1778845	FAM111A	family with sequence similarity 111, member A (FAM111A), transcript variant 1, mRNA.	NM_022074.2	9.12	8.02	-1.1	10.11
ILMN_1683026	PSMB10	proteasome (prosome, macropain) subunit, beta type, 10 (PSMB10), mRNA.	NM_002801.2	12.27	11.47	-0.8	10.1
ILMN_1757242	RNF128	ring finger protein 128 (RNF128), transcript variant 2, mRNA.	NM_024539.3	7.67	8.73	1.06	10.09
ILMN_1685005	TNFRSF1A	tumor necrosis factor receptor superfamily, member 1A (TNFRSF1A), mRNA.	NM_001065.2	11.3	10.51	-0.79	10.08
ILMN_1665510	ERRF1	ERBB receptor feedback inhibitor 1 (ERRF1), mRNA.	NM_018948.2	7.78	8.91	1.13	10.08
ILMN_2185984	SASH1	SAM and SH3 domain containing 1 (SASH1), mRNA.	NM_015278.3	9.55	8.41	-1.14	10.06
ILMN_1784608	CLEC2B	C-type lectin domain family 2, member B (CLEC2B), mRNA.	NM_005127.2	7.96	6.8	-1.16	10.05
ILMN_1771728	PXMP4	peroxisomal membrane protein 4, 24kDa (PXMP4), transcript variant 2, mRNA.	NM_183397.2	9.57	8.43	-1.13	10.05
ILMN_2376108	PSMB9	proteasome (prosome, macropain) subunit, beta type, 9 (large multifunctional peptidase 2) (PSMB9), transcript variant 1, mRNA.	NM_002800.4	8.25	6.96	-1.29	10.02
ILMN_1794885	FRMD5	FERM domain containing 5 (FRMD5), transcript variant 2, mRNA.	NM_032892.3	6.26	7.37	1.11	10.02
ILMN_1701482	POFUT2	protein O-fucosyltransferase 2 (POFUT2), transcript variant 1, mRNA.	NM_015227.4	8.52	9.59	1.07	10.02
ILMN_1701461	TIMP3	TIMP metalloproteinase inhibitor 3 (Sorsby dystrophy, pseudoinflammatory) (TIMP3), mRNA.	NM_000362.4	9.03	7.49	-1.55	10.01
ILMN_1748844	CNKSR3	CNKSR family member 3 (CNKSR3), mRNA.	NM_173515.2	7.78	6.65	-1.13	10
ILMN_1743663	POMT1	protein O-mannosyltransferase 1 (POMT1), mRNA.	NM_007171.2	9.87	9.01	-0.85	10
ILMN_2213297	C11orf54	chromosome 11 open reading frame 54 (C11orf54), mRNA.	NM_014039.2	10.74	9.59	-1.15	10
ILMN_1798360	CXCR7	chemokine (C-X-C motif) receptor 7 (CXCR7), mRNA.	NM_020311.2	12.5	13.5	1	10
ILMN_1756705	CTF18	CTF18, chromosome transmission fidelity factor 18 homolog (S. cerevisiae) (CTF18), mRNA.	NM_022092.1	8.12	6.9	-1.23	9.99
ILMN_1690125	PDLIM7	PDZ and LIM domain 7 (enigma) (PDLIM7), transcript variant 4, mRNA.	NM_213636.1	7.44	8.68	1.23	9.99
ILMN_1737205	MCM4	minichromosome maintenance complex component 4 (MCM4), transcript variant 1, mRNA.	NM_005914.2	11.69	10.72	-0.97	9.98
ILMN_2383323	CDC25B	cell division cycle 25 homolog B (S. pombe) (CDC25B), transcript variant 2, mRNA.	NM_004358.3	10.6	9.52	-1.08	9.97
ILMN_1670490	PDPN	podoplanin (PDPN), transcript variant 4, mRNA.	NM_001006625.1	6.38	7.48	1.09	9.97
ILMN_1726288	TMEM106B	transmembrane protein 106B (TMEM106B), mRNA.	NM_018374.2	8.59	7.3	-1.29	9.95
ILMN_1727702	SFRS2B	splicing factor, arginine/serine-rich 2B (SFRS2B), mRNA.	NM_032102.2	10.65	11.58	0.93	9.94
ILMN_1660635	LACTB2	lactamase, beta 2 (LACTB2), mRNA.	NM_016027.1	9	9.98	0.98	9.93
ILMN_1722206	MAF	v-maf musculoaponeurotic fibrosarcoma oncogene homolog (avian) (MAF), transcript variant 2, mRNA.	NM_001031804.1	6.61	7.74	1.13	9.92
ILMN_1771026	GARS	glycyl-tRNA synthetase (GARS), mRNA.	NM_002047.2	11.38	12.37	0.98	9.92
ILMN_1681252	C17orf44	chromosome 17 open reading frame 44 (C17orf44), mRNA.	NM_173621.1	8.38	7.18	-1.2	9.91
ILMN_1651776	FHOD1	formin homology 2 domain containing 1 (FHOD1), mRNA.	NM_013241.2	8.02	8.91	0.88	9.91
ILMN_1658143	RFC3	replication factor C (activator 1) 3, 38kDa (RFC3), transcript variant 1, mRNA.	NM_002915.3	8.67	7.41	-1.26	9.89
ILMN_1751465	BNC1	basonuclin 1 (BNC1), mRNA.	NM_001717.2	8.85	10.02	1.17	9.89
ILMN_1674344	PARD6G	par-6 partitioning defective 6 homolog gamma (C. elegans) (PARD6G), mRNA.	NM_032510.3	8.99	10.09	1.1	9.88
ILMN_1677693	GPR109B	G protein-coupled receptor 109B (GPR109B), mRNA.	NM_006018.1	8.28	7.16	-1.13	9.87
ILMN_1722981	TLR5	toll-like receptor 5 (TLR5), mRNA.	NM_003268.4	8.4	7.32	-1.08	9.85
ILMN_1702933	ADM2	adrenomedullin 2 (ADM2), mRNA.	NM_024866.4	7.25	8.29	1.03	9.85
ILMN_1872032		AGENCOURT_10400346 NIH_MGC_82 cDNA clone IMAGE:6616124 5, mRNA sequence		8.51	9.34	0.82	9.84
ILMN_1679093	ZNF581	zinc finger protein 581 (ZNF581), mRNA.	NM_016535.3	10.36	9.55	-0.81	9.82
ILMN_1694177	PCNA	proliferating cell nuclear antigen (PCNA), transcript variant 2, mRNA.	NM_182649.1	12.27	11.2	-1.07	9.81
ILMN_1693912	SLC47A2	solute carrier family 47, member 2 (SLC47A2), transcript variant 1, mRNA.	NM_152908.3	11.68	10.51	-1.16	9.81
ILMN_1674706	MTFHD2	methylene tetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase (MTFHD2), nuclear gene, transcript variant 1, mRNA.	NM_006636.3	7.61	8.92	1.3	9.81
ILMN_1827562		cDNA FLJ42786 fis, clone BRAWH3006761		7.09	8.17	1.08	9.8
ILMN_1761762	C6orf141	chromosome 6 open reading frame 141 (C6orf141), mRNA.	NM_153344.1	7.97	9.32	1.35	9.79
ILMN_1750748	MGC102966	PREDICTED: similar to Keratin, type I cytoskeletal 16 (Cytokeratin-16) (CK-16) (Keratin-16) (MGC102966), misc RNA.	XR_015970.1	10.6	11.83	1.23	9.78
ILMN_1785618	SMTN	smoothelin (SMTN), transcript variant 3, mRNA.	NM_006932.3	7.35	8.51	1.16	9.78
ILMN_1672605	C7orf41	chromosome 7 open reading frame 41 (C7orf41), mRNA.	NM_152793.2	8.5	9.47	0.97	9.75
ILMN_1774161	ARL15	ADP-ribosylation factor-like 15 (ARL15), mRNA.	NM_019087.1	6.76	7.76	1	9.74
ILMN_2397028	SERPINB8	serpin peptidase inhibitor, clade B (ovalbumin), member 8 (SERPINB8), transcript variant 1, mRNA.	NM_002640.3	8.89	9.87	0.98	9.74
ILMN_1666306	SRRD	SRR1 domain containing (SRRD), mRNA.	NM_001013694.2	7.43	8.5	1.08	9.73
ILMN_1898692		602976638F1 NIH_MGC_12 cDNA clone IMAGE:5115800 5, mRNA sequence		7.24	5.88	-1.36	9.72
ILMN_1662364	AARS	alanyl-tRNA synthetase (AARS), mRNA.	NM_001605.2	12.39	13.15	0.76	9.72
ILMN_1670111	CDKN2B	cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) (CDKN2B), transcript variant 2, mRNA.	NM_078487.2	6.74	8.03	1.29	9.71
ILMN_1660723	RDH13	retinol dehydrogenase 13 (all-trans-9-cis) (RDH13), mRNA.	NM_138412.2	8.45	7.54	-0.91	9.7
ILMN_1675048	IGF1R	insulin-like growth factor 1 receptor (IGF1R), mRNA.	NM_000875.2	7.13	8.22	1.09	9.7
ILMN_1737993	ERBB3	v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian) (ERBB3), transcript variant s, mRNA.	NM_001005915.1	8.86	7.52	-1.34	9.68
ILMN_1898059		BX112190 Soares_NFL_T_GBC_S1 cDNA clone IMAGp998F024129, mRNA sequence		7.99	6.74	-1.24	9.68
ILMN_1665792	ITGA2	integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor) (ITGA2), mRNA.	NM_002203.3	10.59	11.79	1.2	9.68
ILMN_1666819	PHLDB1	pleckstrin homology-like domain, family B, member 1 (PHLDB1), mRNA.	NM_015157.1	11.53	12.44	0.91	9.68
ILMN_1706021	TMPPRSS4	transmembrane protease, serine 4 (TMPPRSS4), transcript variant 1, mRNA.	NM_019894.2	8.76	7.52	-1.24	9.67
ILMN_1710644	MARVELD3	MARVEL domain containing 3 (MARVELD3), transcript variant 1, mRNA.	NM_001017967.2	9.68	8.84	-0.84	9.67
ILMN_1683859	SLC7A1	solute carrier family 7 (cationic amino acid transporter, y+ system), member 1 (SLC7A1), mRNA.	NM_003045.3	12.66	13.35	0.69	9.67
ILMN_1693090	CROT	carntiline O-octanoyltransferase (CROT), mRNA.	NM_021151.2	10.61	9.49	-1.12	9.65
ILMN_1904628		PMO-STO264-161199-001-b06 ST0264 cDNA, mRNA sequence		7.92	6.82	-1.1	9.63
ILMN_2091347	IDH1	isocitrate dehydrogenase 1 (NADP+), soluble (IDH1), mRNA.	NM_005896.2	11.86	11.04	-0.83	9.63
ILMN_1675483	ANKMY1	ankyrin repeat and MYND domain containing 1 (ANKMY1), transcript variant 2, mRNA.	NM_017844.2	8.77	7.68	-1.09	9.63
ILMN_2050790	C11orf52	chromosome 11 open reading frame 52 (C11orf52), mRNA.	NM_080659.1	8.06	6.83	-1.23	9.63
ILMN_1660691	RAB31	RAB31, member RAS oncogene family (RAB31), mRNA.	NM_006868.2	9.96	10.85	0.89	9.63
ILMN_1734734	ZNF519	zinc finger protein 519 (ZNF519), mRNA.	NM_145287.2	9.14	8.2	-0.94	9.61
ILMN_1752478	DHRS3	dehydrogenase/reductase (SDR family) member 3 (DHRS3), mRNA.	NM_004753.4	11.93	10.84	-1.09	9.57
ILMN_1810725	FAM129A	family with sequence similarity 129, member A (FAM129A), transcript variant 2, mRNA.	NM_052966.2	11.5	12.64	1.13	9.55
ILMN_1802205	RHOB	ras homolog gene family, member B (RHOB), mRNA.	NM_004040.2	6.77	8.06	1.3	9.55
ILMN_2367258	SMOX	spermine oxidase (SMOX), transcript variant 2, mRNA.	NM_175840.1	7	7.91	0.91	9.55
ILMN_1712916	MGC45800	PREDICTED: hypothetical protein LOC90768 (MGC45800), misc RNA.	XR_017780.1	6.16	7.23	1.08	9.54
ILMN_1809931	NDRG1	N-myc downstream regulated gene 1 (NDRG1), mRNA.	NM_006096.2	10.68	11.54	0.86	9.53
ILMN_1719998	C9orf45	PREDICTED: chromosome 9 open reading frame 45 (C9orf45), misc RNA.	XR_017862.1	8.73	7.82	-0.91	9.52
ILMN_1775182	GSR	glutathione reductase (GSR), mRNA.	NM_000637.2	9.11	8.09	-1.02	9.52
ILMN_2397954	PARP3	poly (ADP-ribose) polymerase family, member 3 (PARP3), transcript variant 2, mRNA.	NM_005485.3	8.42	7.45	-0.97	9.52
ILMN_2262044	PARP10	poly (ADP-ribose) polymerase family, member 10 (PARP10), mRNA.	NM_032789.1	8.25	7.05	-1.2	9.5

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN 1794539	KIF11	kinesin family member 11 (KIF11), mRNA.	NM 004523.2	8.45	7.46	-0.99	9.5
ILMN 2232463	ARL14	ADP-ribosylation factor-like 14 (ARL14), mRNA.	NM 025047.1	10.95	9.67	-1.27	9.49
ILMN 1750497	GPR109A	G protein-coupled receptor 109A (GPR109A), mRNA.	NM 177551.3	8.74	7.46	-1.28	9.46
ILMN 1752249	FAM38A	family with sequence similarity 38, member A (FAM38A), mRNA.	NM 014745.1	10.39	11.6	1.21	9.46
ILMN 1781373	IFIH1	interferon induced with helicase C domain 1 (IFIH1), mRNA.	NM 022168.2	8.44	7.22	-1.22	9.43
ILMN 1685170	ANXA11	annexin A11 (ANXA11), transcript variant a, mRNA.	NM 001157.2	11.99	10.97	-1.02	9.42
ILMN 1777170	LOC440585	PREDICTED: hypothetical LOC440585, transcript variant 3 (LOC440585), mRNA.	XM 942137.2	9.78	8.79	-0.99	9.41
ILMN 1730007	MPZL2	myelin protein zero-like 2 (MPZL2), transcript variant 2, mRNA.	NM 144765.1	10.81	9.87	-0.94	9.41
ILMN 1902308	AGENCOURT	13567612 NIH_MGC_184 cDNA clone IMAGE:30326575, mRNA sequence		9.93	11.04	1.11	9.41
ILMN 1760201	DNMT1	DNA (cytosine-5)-methyltransferase 1 (DNMT1), mRNA.	NM 001379.1	12.46	11.67	-0.79	9.39
ILMN 1701613	RARRES3	retinoic acid receptor responder (tazarotene induced) 3 (RARRES3), mRNA.	NM 004585.3	8.15	6.74	-1.41	9.39
ILMN 2310296	C21orf58	chromosome 21 open reading frame 58 (C21orf58), transcript variant 2, mRNA.	NM 199071.2	8.78	7.62	-1.17	9.39
ILMN 1809477	CARHSP1	calcium regulated heat stable protein 1, 24kDa (CARHSP1), transcript variant 2, mRNA.	NM 001042476.1	12	11.17	-0.82	9.37
ILMN 2102670	GATA2	GATA binding protein 2 (GATA2), mRNA.	NM 032638.3	7.83	6.83	-1.01	9.36
ILMN 1766657	STOM	stomatin (STOM), transcript variant 1, mRNA.	NM 004099.4	7.84	8.97	1.13	9.36
ILMN 1803194	GALK1	galactokinase 1 (GALK1), mRNA.	NM 000154.1	9.49	8.83	-0.67	9.35
ILMN 1673649	HYOU1	hypoxia up-regulated 1 (HYOU1), mRNA.	NM 006389.2	7.38	8.44	1.06	9.32
ILMN 1718866	MGC23985	similar to AVLV472 (MGC23985), mRNA.	NM 206966.2	5.98	7.04	1.07	9.32
ILMN 1746396	CTNNB1	catenin (cadherin-associated protein), beta 1, 88kDa (CTNNB1), mRNA.	NM 001098209.1	8.4	9.33	0.93	9.32
ILMN 1692056	HS3ST3A1	heparan sulfate (glucosamine) 3-O-sulfotransferase 3A1 (HS3ST3A1), mRNA.	NM 006042.1	5.78	6.93	1.15	9.32
ILMN 1684183	RAD9A	RAD9 homolog A (S. pombe) (RAD9A), mRNA.	NM 004584.2	9.02	8.01	-1	9.31
ILMN 1740903	C7orf49	chromosome 7 open reading frame 49 (C7orf49), mRNA.	NM 024033.1	8.29	9.33	1.04	9.31
ILMN 1651365	ZBED2	zinc finger, BED-type containing 2 (ZBED2), mRNA.	NM 024508.3	10.7	11.56	0.86	9.29
ILMN 1670807	FAM84B	family with sequence similarity 84, member B (FAM84B), mRNA.	NM 174911.3	10.83	9.87	-0.96	9.28
ILMN 2405680	CRB3	crumbs homolog 3 (Drosophila) (CRB3), transcript variant 3, mRNA.	NM 174881.2	9.96	9.19	-0.77	9.27
ILMN 1718387	LOR	loricrin (LOR), mRNA.	NM 000427.1	6.26	7.27	1.01	9.27
ILMN 2048982	ZBTB25	zinc finger and BTB domain containing 25 (ZBTB25), mRNA.	NM 006977.2	9.05	8.06	-0.98	9.26
ILMN 1739161	PPAP2A	phosphatidic acid phosphatase type 2A (PPAP2A), transcript variant 1, mRNA.	NM 003711.2	8	8.93	0.93	9.25
ILMN 2368721	CENPM	centromere protein M (CENPM), transcript variant 2, mRNA.	NM 001002876.1	7.12	6.24	-0.88	9.24
ILMN 1684571	RSPH1	radial spoke head 1 homolog (Chlamydomonas) (RSPH1), mRNA.	NM 080860.2	7.35	6.24	-1.11	9.24
ILMN 1695829	TTYH2	tweety homolog 2 (Drosophila) (TTYH2), transcript variant 1, mRNA.	NM 032646.5	7.15	6.17	-0.98	9.24
ILMN 1814790	SHANK2	SH3 and multiple ankyrin repeat domains 2 (SHANK2), transcript variant 1, mRNA.	NM 012309.1	6.03	7.12	1.09	9.24
ILMN 1759184	C19orf48	chromosome 19 open reading frame 48 (C19orf48), mRNA.	NM 199250.1	10.84	10.01	-0.83	9.23
ILMN 1656111	MYLIP	myosin regulatory light chain interacting protein (MYLIP), mRNA.	NM 013262.3	10.18	9.35	-0.83	9.23
ILMN 179374	AMMECR1	Alport syndrome, mental retardation, midface hypoplasia and elliptocytosis chromosomal region, gene 1 (AMMECR1), transcript variant 1, mRNA.	NM 015365.2	8.24	9.28	1.03	9.23
ILMN 1700831	SLC27A2	solute carrier family 27 (fatty acid transporter), member 2 (SLC27A2), mRNA.	NM 003645.2	9.73	8.86	-0.88	9.22
ILMN 1667966	C1orf24	chromosome 1 open reading frame 24 (C1orf24), transcript variant 2, mRNA.	NM 052966.1	12.2	13.14	0.94	9.22
ILMN 1766539	LOC643319	PREDICTED: similar to Transgelin-2 (LOC643319), mRNA.	XM 927980.1	8.28	9.29	1	9.21
ILMN 1773760	PAICS	phosphoribosylaminoimidazole carboxylase, phosphoribosylaminoimidazole succinocarboxamide synthetase (PAICS), transcript variant 1, mRNA.	NM 006452.3	10.67	9.85	-0.82	9.2
ILMN 1701655	SLC24A6	solute carrier family 24 (sodium/potassium/calcium exchanger), member 6 (SLC24A6), mRNA.	NM 024959.2	10.18	9.45	-0.73	9.19
ILMN 1775016	MPZL2	myelin protein zero-like 2 (MPZL2), transcript variant 2, mRNA.	NM 144765.1	10.49	9.65	-0.85	9.18
ILMN 2403247	CMTM7	CKLF-like MARVEL transmembrane domain containing 7 (CMTM7), transcript variant 2, mRNA.	NM 181472.1	7.22	8.4	1.18	9.18
ILMN 1748241	CENPP	centromere protein P (CENPP), mRNA.	NM 001012267.1	7.07	6.2	-0.86	9.17
ILMN 2239754	IFIT3	interferon-induced protein with tetratricopeptide repeats 3 (IFIT3), mRNA.	NM 001549.2	8.56	7.07	-1.49	9.17
ILMN 1713892	C4orf34	chromosome 4 open reading frame 34 (C4orf34), mRNA.	NM 174921.1	11.22	10.43	-0.79	9.14
ILMN 1691376	JAG1	jagged 1 (Alagille syndrome) (JAG1), mRNA.	NM 000214.1	10.8	11.52	0.73	9.14
ILMN 2319000	MATK	megakaryocyte-associated tyrosine kinase (MATK), transcript variant 3, mRNA.	NM 139354.2	8.26	7.24	-1.02	9.13
ILMN 2355831	FHL2	four and a half LIM domains 2 (FHL2), transcript variant 2, mRNA.	NM 201555.1	12.32	13.12	0.8	9.13
ILMN 1788108	TXNDC5	thioredoxin domain containing 5 (TXNDC5), transcript variant 1, mRNA.	NM 030810.2	9.71	10.43	0.71	9.13
ILMN 1657796	STMN1	stathmin 1/oncprotein 18 (STMN1), transcript variant 1, mRNA.	NM 203401.1	10.01	8.9	-1.11	9.12
ILMN 1654609	TIGA1	TIGA1 (TIGA1), mRNA.	NM 053000.1	12.44	11.76	-0.69	9.1
ILMN 2149494	NPL	N-acetylneuraminate pyruvate lyase (dihydrodipicolinate synthase) (NPL), mRNA.	NM 030769.1	8.36	7.25	-1.11	9.07
ILMN 1662640	C20orf127	chromosome 20 open reading frame 127 (C20orf127), mRNA.	NM 080757.1	11.09	10.16	-0.93	9.06
ILMN 1664630	CHEK1	CHK1 checkpoint homolog (S. pombe) (CHEK1), mRNA.	NM 001274.3	9.78	8.71	-1.07	9.06
ILMN 1659142	MDK	midkine (neurite growth-promoting factor 2) (MDK), transcript variant 2, mRNA.	NM 001012333.1	7.29	6.1	-1.2	9.06
ILMN 1900520	602659965F1 NCI CGAP	Skn3 cDNA clone IMAGE:4802969, mRNA sequence		9.58	10.46	0.88	9.05
ILMN 1801313	SIAH2	seven in absentia homolog 2 (Drosophila) (SIAH2), mRNA.	NM 005067.5	7.38	8.56	1.18	9.05
ILMN 2219131	RPS15	ribosomal protein S15 (RPS15), mRNA.	NM 001018.3	7.3	8.28	0.99	9.05
ILMN 1815130	MICALL1	MICAL-like 1 (MICAL1), mRNA.	NM 033386.2	8.64	9.7	1.06	9.05
ILMN 1754149	LETMD1	LETMD1 domain containing 1 (LETMD1), transcript variant 2, mRNA.	NM 001024668.1	10.49	9.65	-0.84	9.02
ILMN 1711087	LOC648526	PREDICTED: similar to epiplakin 1 (LOC648526), mRNA.	XM 937579.1	8.54	9.61	1.07	9.02
ILMN 1676548	BZW2	basic leucine zipper and W2 domains 2 (BZW2), mRNA.	NM 014038.1	10.76	9.98	-0.78	9.01
ILMN 1693233	KIAA0513	KIAA0513 (KIAA0513), mRNA.	NM 014732.2	8.4	7.28	-1.12	9.01
ILMN 2311089	BRCA1	breast cancer 1, early onset (BRCA1), transcript variant BRCA1-delta11b, mRNA.	NM 007304.2	8.23	6.93	-1.3	9
ILMN 1655229	SLC7A11	solute carrier family 7, (cationic amino acid transporter, y+ system) member 11 (SLC7A11), mRNA.	NM 014331.3	6.09	7.05	0.96	9
ILMN 1761247	PIR	pirin (iron-binding nuclear protein) (PIR), transcript variant 2, mRNA.	NM 001018109.1	11.32	10.27	-1.05	8.99
ILMN 1774874	IL1RN	interleukin 1 receptor antagonist (IL1RN), transcript variant 4, mRNA.	NM 173843.1	10.25	9.29	-0.95	8.98
ILMN 1767336	AADACL1	arylacacetamide deacetylase-like 1 (AADACL1), mRNA.	NM 020792.3	8.29	7.28	-1.01	8.98
ILMN 1767982	BLOC1S2	biogenesis of lysosome-related organelles complex-1, subunit 2 (BLOC1S2), transcript variant 2, mRNA.	NM 001001342.1	7.04	8	0.97	8.96
ILMN 2320513	APBB8	amyloid beta (A4) precursor protein-binding, family B, member 3 (APBB8), transcript variant 2, mRNA.	NM 133173.2	8.79	7.99	-0.8	8.93
ILMN 2131293	LOC200810	similar to beta-1,4-mannosyltransferase; beta-1,4-mannosyltransferase (LOC200810), mRNA.	NM 001015050.1	10.58	9.88	-0.7	8.92
ILMN 2383484	C19orf48	chromosome 19 open reading frame 48 (C19orf48), mRNA.	NM 199250.1	9.08	7.91	-1.17	8.89
ILMN 1766010	YARS	tyrosyl-tRNA synthetase (YARS), mRNA.	NM 003680.2	10.72	11.63	0.92	8.89
ILMN 1685427	WFDC2	WAP four-disulfide core domain 2 (WFDC2), transcript variant 3, mRNA.	NM 080733.1	6.86	6.01	-0.85	8.85
ILMN 1710937	IFI16	interferon, gamma-inducible protein 16 (IFI16), mRNA.	NM 005531.1	10.88	10.02	-0.86	8.84
ILMN 2153029	CGB	chorionic gonadotropin, beta polypeptide (CGB), mRNA.	NM 000737.2	6.18	7.09	0.91	8.84
ILMN 1688780	S100A4	S100 calcium binding protein A4 (S100A4), transcript variant 2, mRNA.	NM 019554.2	11.63	10.15	-1.48	8.83
ILMN 2079786	NUAK1	NUAK family, SNF1-like kinase, 1 (NUAK1), mRNA.	NM 014840.2	8.96	10	1.03	8.83
ILMN 1657766	TRIM29	tripartite motif-containing 29 (TRIM29), mRNA.	NM 012101.3	12.01	11.03	-0.99	8.82
ILMN 2201413	SLC37A2	solute carrier family 37 (glycerol-3-phosphate transporter), member 2 (SLC37A2), mRNA.	NM 198277.1	8.37	7.43	-0.95	8.78
ILMN 1796925	CXADR	coxsackie virus and adenovirus receptor (CXADR), mRNA.	NM 001338.3	10.56	9.6	-0.96	8.77
ILMN 2382505	SLC22A18	solute carrier family 22 (organic cation transporter), member 18 (SLC22A18), transcript variant 1, mRNA.	NM 002555.3	9.24	8.25	-0.99	8.74
ILMN 1739325	LOC284023	PREDICTED: hypothetical protein LOC284023, transcript variant 3 (LOC284023), mRNA.	XM 941810.2	9.2	8.25	-0.95	8.74
ILMN 1707464	MST1	macrophage stimulating 1 (hepatocyte growth factor-like) (MST1), mRNA.	NM 020998.2	9.93	9.01	-0.92	8.74
ILMN 1745420	PHF19	PHD finger protein 19 (PHF19), transcript variant 2, mRNA.	NM 001009936.1	8.91	7.96	-0.95	8.74
ILMN 2052717	GRAMD1C	GRAM domain containing 1C (GRAMD1C), mRNA.	NM 017577.2	6.71	5.87	-0.84	8.73
ILMN 1666444	RBMS1	RNA binding motif, single stranded interacting protein 1 (RBMS1), transcript variant 3, mRNA.	NM 002897.3	10.09	10.91	0.82	8.73
ILMN 2391512	ASAHL	N-acylsphingosine amidohydrolase (acid ceramidase)-like (ASAHL), transcript variant 1, mRNA.	NM 014435.3	8.09	7.24	-0.85	8.71
ILMN 1722089	RNF217	ring finger protein 217 (RNF217), mRNA.	NM 152553.2	7.39	8.48	1.09	8.71
ILMN 1730928	CDK5R1	cyclin-dependent kinase 5, regulatory subunit 1 (p35) (CDK5R1), mRNA.	NM 003885.2	6.46	7.5	1.05	8.71
ILMN 1690064	RUNDC2C	RUN domain containing 2C (RUNDC2C) on chromosome 16.	NR 002939.2	9.08	10.09	1.01	8.7
ILMN 1792076	TRERF1	transcriptional regulating factor 1 (TRERF1), mRNA.	NM 033502.1	8.81	7.75	-1.06	8.66
ILMN 1672295	ZC3H12A	zinc finger CCCH-type containing 12A (ZC3H12A), mRNA.	NM 025079.1	7.46	8.51	1.05	8.66
ILMN 1732187	TMEM143	transmembrane protein 143 (TMEM143), mRNA.	NM 018273.2	7.2	6.03	-1.16	8.65
ILMN 2332795	ZNF16	zinc finger protein 16 (ZNF16), transcript variant 1, mRNA.	NM 006958.2	8.43	7.58	-0.85	8.63
ILMN 2073604	EBP	emopamil binding protein (sterol isomerase) (EBP), mRNA.	NM 006579.1	10.21	11.06	0.85	8.62
ILMN 1798557	LOC202134	PREDICTED: hypothetical protein LOC202134, transcript variant 1 (LOC202134), mRNA.	XM 371783.3	7.25	6.33	-0.92	8.61
ILMN 1764571	ARHGAP23	PREDICTED: Rho GTPase activating protein 23, transcript variant 1 (ARHGAP23), mRNA.	XM 290799.7	13.63	12.9	-0.74	8.61
ILMN 1715555	DBP	D site of albumin promoter (albumin D-box) binding protein (DBP), mRNA.	NM 001352.2	7.21	6.05	-1.16	8.6
ILMN 2132809	ARHGEF10	Rho guanine nucleotide exchange factor (GEF) 10 (ARHGEF10), mRNA.	NM 014629.2	10.24	11.05	0.81	8.6
ILMN 2381257	DSC2	desmocollin 2 (DSC2), transcript variant Dsc2a, mRNA.	NM 024422.2	9.33	10.27	0.93	8.59

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1754538	C10orf58	chromosome 10 open reading frame 58 (C10orf58), mRNA.	NM_032333.4	12.29	11.39	-0.9	8.58
ILMN_2219712	HMBG2	high-mobility group box 2 (HMBG2), mRNA.	NM_002129.2	10.99	9.86	-1.12	8.58
ILMN_1738095	PER2	period homolog 2 (Drosophila) (PER2), mRNA.	NM_022817.2	10.19	9.33	-0.87	8.56
ILMN_1777113	NEURL2	neuralized homolog 2 (Drosophila) (NEURL2), mRNA.	NM_080749.2	7.2	6.24	-0.96	8.56
ILMN_1666546	DUSP14	dual specificity phosphatase 14 (DUSP14), mRNA.	NM_007026.2	10.51	11.49	0.98	8.56
ILMN_1679176	CLCA4	chloride channel, calcium activated, family member 4 (CLCA4), mRNA.	NM_012128.2	8.32	6.88	-1.44	8.55
ILMN_1773154	NFKBIA	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha (NFKBIA), mRNA.	NM_020529.1	12.37	11.45	-0.92	8.54
ILMN_1892548		602572519F1 NIH_MGC_77 cDNA clone IMAGE:4700548 5, mRNA sequence		5.98	7.18	1.2	8.54
ILMN_1719599	SYTL4	synaptotagmin-like 4 (granuphilin-a) (SYTL4), mRNA.	NM_080737.1	9.37	8.25	-1.13	8.53
ILMN_1804834	C6orf130	chromosome 6 open reading frame 130 (C6orf130), mRNA.	NM_145063.2	10.13	9.32	-0.8	8.53
ILMN_1782305	NR4A2	nuclear receptor subfamily 4, group A, member 2 (NR4A2), transcript variant 1, mRNA.	NM_006186.2	8.65	7.69	-0.96	8.52
ILMN_1657361	CBX7	chromobox homolog 7 (CBX7), mRNA.	NM_175709.2	8.46	7.31	-1.15	8.49
ILMN_1739541	NMI	N-myc (and STAT) interactor (NMI), mRNA.	NM_004688.1	10.14	9.27	-0.88	8.49
ILMN_1705442	CMTM3	CKLF-like MARVEL transmembrane domain containing 3 (CMTM3), transcript variant 1, mRNA.	NM_144601.2	9.09	9.91	0.82	8.49
ILMN_2374340	PLAUR	plasminogen activator, urokinase receptor (PLAUR), transcript variant 2, mRNA.	NM_001005376.1	7.47	8.44	0.97	8.49
ILMN_2044813	TUBB2A	tubulin, beta 2A (TUBB2A), mRNA.	NM_001069.2	6.43	7.49	1.06	8.49
ILMN_1715189	LHX6	LIM homeobox 6 (LHX6), transcript variant 2, mRNA.	NM_199160.2	6.6	5.65	-0.95	8.48
ILMN_2063586	CLIC4	chloride intracellular channel 4 (CLIC4), nuclear gene encoding mitochondrial protein, mRNA.	NM_013943.1	9.66	10.71	1.05	8.47
ILMN_1723467	ITGB1	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12) (ITGB1), transcript variant 1A, mRNA.	NM_002211.2	12.3	13.05	0.75	8.47
ILMN_1773413	DOCK9	dedicator of cytokinesis 9 (DOCK9), mRNA.	NM_015296.1	7.87	8.82	0.95	8.46
ILMN_2257432	RAD51	RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae) (RAD51), transcript variant 1, mRNA.	NM_002875.2	8.25	7.14	-1.11	8.45
ILMN_1815169	MCM5	minichromosome maintenance complex component 5 (MCM5), mRNA.	NM_006739.3	9.09	8.2	-0.89	8.42
ILMN_2148913	TMEM45A	transmembrane protein 45A (TMEM45A), mRNA.	NM_018004.1	9.05	10.22	1.16	8.42
ILMN_1653161	SNCG	synuclein, gamma (breast cancer-specific protein 1) (SNCG), mRNA.	NM_003087.1	8.85	7.72	-1.13	8.4
ILMN_2173291	CYP4B1	cytochrome P450, family 4, subfamily B, polypeptide 1 (CYP4B1), mRNA.	NM_000779.2	6.69	5.82	-0.87	8.38
ILMN_1752932	MPZL2	myelin protein zero-like 2 (MPZL2), transcript variant 1, mRNA.	NM_005797.2	12.64	11.86	-0.79	8.38
ILMN_1755075	ID1I	isopentenyl-diphosphate delta isomerase 1 (ID1I), mRNA.	NM_004508.2	9.42	10.99	1.57	8.37
ILMN_2097997	IFNE1	interferon epsilon 1 (IFNE1), mRNA.	NM_176891.3	6.52	7.64	1.12	8.37
ILMN_2380566	SIAH1	seven in absentia homolog 1 (Drosophila) (SIAH1), transcript variant 2, mRNA.	NM_001006610.1	9.26	10.01	0.75	8.37
ILMN_2305721	POMT1	protein-O-mannosyltransferase 1 (POMT1), transcript variant 1, mRNA.	NM_007171.3	9.08	8.31	-0.77	8.35
ILMN_1658569	LOC728910	PREDICTED: similar to Galectin-7 (Gal-7) (HKL-14) (P17) (p53-induced protein 1) (LOC728910), mRNA.	XM_001128786.1	12.29	13.11	0.83	8.35
ILMN_1757298	BTBD7	BTB (POZ) domain containing 7 (BTBD7), transcript variant 2, mRNA.	NM_018167.3	7.76	8.64	0.88	8.35
ILMN_1697710	IL1F7	interleukin 1 family, member 7 (zeta) (IL1F7), transcript variant 1, mRNA.	NM_014439.3	8.55	7.61	-0.94	8.33
ILMN_1750234	PRSS2	protease, serine, 2 (trypsin 2) (PRSS2), transcript variant 1, mRNA.	NM_002770.2	6.31	7.34	1.02	8.32
ILMN_1746085	IGFBP3	insulin-like growth factor binding protein 3 (IGFBP3), transcript variant 2, mRNA.	NM_000598.4	11.93	11.24	-0.69	8.29
ILMN_1670539	LOC92017	similar to RIKEN cDNA 4933437K13 (LOC92017), mRNA.	NM_001009607.1	7.85	8.71	0.86	8.28
ILMN_1729987	SRC	v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (SRC), transcript variant 2, mRNA.	NM_198291.1	8.78	9.73	0.94	8.27
ILMN_2172174	NP	nucleoside phosphorylase (NP), mRNA.	NM_000270.1	9.62	10.5	0.88	8.27
ILMN_1758719	NEDD9	neural precursor cell expressed, developmentally down-regulated 9 (NEDD9), transcript variant 1, mRNA.	NM_006403.2	7.24	8.28	1.04	8.26
ILMN_2153332	ATXN1	ataxin 1 (ATXN1), mRNA.	NM_000332.2	8.67	9.8	1.13	8.26
ILMN_1695606	EFNB3	ephrin-B3 (EFNB3), mRNA.	NM_001406.3	7.02	6.12	-0.91	8.25
ILMN_1657996	LOC642035	PREDICTED: hypothetical protein LOC642035 (LOC642035), mRNA.	XM_936105.1	6.99	8.06	1.07	8.25
ILMN_1678934	POLR1E	polymerase (RNA) I polypeptide E, 53kDa (POLR1E), mRNA.	NM_022490.1	8.09	7.06	-1.02	8.24
ILMN_1677843	RAB24	RAB24, member RAS oncogene family (RAB24), transcript variant 1, mRNA.	NM_01031677.2	8.45	7.27	-1.18	8.24
ILMN_2383934	ITGB1	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12) (ITGB1), transcript variant 1C-2, mRNA.	NM_013669.1	12.3	13.19	0.89	8.24
ILMN_1767385	TUBAL3	tubulin, alpha-like 3 (TUBAL3), mRNA.	NM_024803.1	6.7	5.87	-0.83	8.23
ILMN_1712400	SERPINB6	serpin peptidase inhibitor, clade B (ovalbumin), member 6 (SERPINB6), mRNA.	NM_004568.4	12.58	11.98	-0.6	8.22
ILMN_2392274	CD82	CD82 molecule (CD82), transcript variant 2, mRNA.	NM_001024844.1	9.4	8.26	-1.14	8.21
ILMN_1655348	GPR1	G protein-coupled receptor 1 (GPR1), transcript variant 2, mRNA.	NM_001098199.1	7.18	6.25	-0.92	8.2
ILMN_1707720	SLC1A5	solute carrier family 1 (neutral amino acid transporter), member 5 (SLC1A5), mRNA.	NM_005628.1	9.64	10.48	0.84	8.2
ILMN_1806651	PARP8	poly (ADP-ribose) polymerase family, member 8 (PARP8), mRNA.	NM_024615.2	8.74	9.9	1.16	8.19
ILMN_2361603	NDRG2	NDRG family member 2 (NDRG2), transcript variant 6, mRNA.	NM_201539.1	8.51	7.56	-0.95	8.18
ILMN_1674983	LOC387841	PREDICTED: similar to ribosomal protein L13a, transcript variant 2 (LOC387841), mRNA.	XM_932678.1	9.88	10.81	0.93	8.18
ILMN_1761425	OLFML2A	olfactomedin-like 2A (OLFML2A), mRNA.	NM_182487.2	11.66	10.82	-0.84	8.17
ILMN_1800311	HSF2	heat shock transcription factor 2 (HSF2), mRNA.	NM_004506.2	7.78	6.9	-0.88	8.16
ILMN_1813456	PCBD1	6-pyruvoyl-tetrahydropterin synthase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1) (PCBD1), transcript variant 1, mRNA.	NM_001001939.1	9.72	8.9	-0.83	8.15
ILMN_1696266	XRCC3	X-ray repair complementing defective repair in Chinese hamster cells 3 (XRCC3), transcript variant 3, mRNA.	NM_001100118.1	7.13	6.25	-0.88	8.15
ILMN_1747775	STX2	syntaxin 2 (STX2), transcript variant 2, mRNA.	NM_194356.1	8.09	9.01	0.92	8.15
ILMN_1799467	SAMD9L	sterile alpha motif domain containing 9-like (SAMD9L), mRNA.	NM_152703.2	6.89	5.81	-1.08	8.14
ILMN_1762308	LOC654191	PREDICTED: similar to similar to RIKEN cDNA 4933437K13 (LOC654191), mRNA.	XM_940642.1	8.75	9.69	0.94	8.14
ILMN_1781565	MESDC1	mesoderm development candidate 1 (MESDC1), mRNA.	NM_022566.1	6.61	7.54	0.93	8.14
ILMN_1814194	TCF4	transcription factor 4 (TCF4), transcript variant 2, mRNA.	NM_003199.2	8.03	8.99	0.96	8.14
ILMN_1759513	RND3	Rho family GTPase 3 (RND3), mRNA.	NM_005168.3	9.58	10.62	1.04	8.13
ILMN_1756204	RP56KA4	ribosomal protein S6 kinase, 90kDa, polypeptide 4 (RP56KA4), transcript variant 2, mRNA.	NM_001006944.1	8.22	9.16	0.94	8.13
ILMN_1769995	MPP6	membrane protein, palmitoylated 6 (MAGUK p55 subfamily member 6) (MPP6), mRNA.	NM_016447.2	7.94	8.76	0.82	8.13
ILMN_1698072	PITRM1	pitrilysin metalloproteinase 1 (PITRM1), mRNA.	NM_014889.2	9.13	10.03	0.89	8.13
ILMN_1696585	FERMT1	fermitin family homolog 1 (Drosophila) (FERMT1), mRNA.	NM_017671.4	11.38	12.28	0.9	8.12
ILMN_1732171	LOC652685	PREDICTED: similar to PMS1 protein homolog 2 (DNA mismatch repair protein PMS2) (LOC652685), mRNA.	XM_942289.1	10.2	9.55	-0.65	8.11
ILMN_1740571	LOC647859	PREDICTED: similar to Occludin (LOC647859), mRNA.	XM_001130815.1	8.73	7.81	-0.92	8.09
ILMN_1800958	ALS2CR4	amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 4 (ALS2CR4), transcript variant 1, mRNA.	NM_001044385.1	10.06	10.8	0.74	8.07
ILMN_2206722	FER1L4	fer-1-like 4 (C. elegans) (FER1L4) on chromosome 20.	NR_001442.2	7.45	6.6	-0.85	8.06
ILMN_1694840	MATN2	matrilin 2 (MATN2), transcript variant 1, mRNA.	NM_002380.3	12.3	11.47	-0.84	8.06
ILMN_1676528	BTN3A2	butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA.	NM_007047.3	7.37	6.16	-1.21	8.05
ILMN_1765641	SEMA3A	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (SEMA3A), mRNA.	NM_006080.2	8.72	7.77	-0.95	8.05
ILMN_2337058	PORCN	porcupine homolog (Drosophila) (PORCN), transcript variant A, mRNA.	NM_022825.2	7.08	8.39	1.31	8.05
ILMN_1796642	NCF2	neutrophil cytosolic factor 2 (65kDa, chronic granulomatous disease, autosomal 2) (NCF2), mRNA.	NM_000433.2	7.41	6.24	-1.17	8.04
ILMN_2115340	HIST2H4A	histone cluster 2, H4a (HIST2H4A), mRNA.	NM_003548.2	10.49	9.51	-0.98	8.03
ILMN_1755834	FEN1	flap structure-specific endonuclease 1 (FEN1), mRNA.	NM_004111.4	9.51	8.52	-1	8.02
ILMN_2397627	UPF3B	UPF3 regulator of nonsense transcripts homolog B (yeast) (UPF3B), transcript variant 1, mRNA.	NM_080632.1	9.82	8.95	-0.87	8.02
ILMN_1798659	CCDC28A	coiled-coil domain containing 28A (CCDC28A), mRNA.	NM_015439.2	10.65	9.86	-0.79	8
ILMN_1764619	FLJ45244	FLJ45244 protein (FLJ45244), mRNA.	NM_207443.1	8.4	7.26	-1.14	7.99
ILMN_1711005	CDC25A	cell division cycle 25 homolog A (S. pombe) (CDC25A), transcript variant 1, mRNA.	NM_001789.2	7.38	6.51	-0.87	7.99
ILMN_1759676	HOXC13	homeobox C13 (HOXC13), mRNA.	NM_017410.2	11.52	10.66	-0.86	7.98
ILMN_1782439	CNN3	calponin 3, acidic (CNN3), mRNA.	NM_001839.2	10.96	11.71	0.75	7.98
ILMN_1717714	CDKN2A	cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) (CDKN2A), transcript variant 1, mRNA.	NM_000077.3	7.74	8.81	1.07	7.98
ILMN_1664912	IL11RA	interleukin 11 receptor, alpha (IL11RA), transcript variant 1, mRNA.	NM_004512.3	10.57	9.74	-0.83	7.96
ILMN_1674629	C9orf3	chromosome 9 open reading frame 3 (C9orf3), mRNA.	NM_032823.3	9.38	10.26	0.89	7.96
ILMN_2388800	PPAP2B	phosphatidic acid phosphatase type 2B (PPAP2B), transcript variant 1, mRNA.	NM_003713.3	8.63	9.38	0.75	7.96
ILMN_1802615	CDK6	cyclin-dependent kinase 6 (CDK6), mRNA.	NM_001259.5	9.98	10.64	0.66	7.96
ILMN_2396947	PSMC3IP	PSMC3 interacting protein (PSMC3IP), transcript variant 2, mRNA.	NM_016556.1	7.91	6.69	-1.22	7.95
ILMN_1695058	SLC38A5	solute carrier family 38, member 5 (SLC38A5), mRNA.	NM_033518.1	7.72	9.06	1.34	7.95
ILMN_2367681	SPAG1	sperm associated antigen 1 (SPAG1), transcript variant 1, mRNA.	NM_003114.3	7.98	9.16	1.18	7.95
ILMN_2173975	RTPA	receptor (chemosensory) transporter protein 4 (RTPA), mRNA.	NM_022147.2	7.16	6.23	-0.93	7.94
ILMN_1694847	TERF1	telomeric repeat binding factor (NIMA-interacting) 1 (TERF1), transcript variant 1, mRNA.	NM_017489.1	8.59	7.74	-0.85	7.94
ILMN_1723884	ARF4	ADP-ribosylation factor 4 (ARF4), mRNA.	NM_001660.2	8.2	9.14	0.94	7.94
ILMN_1695404	LY6E	lymphocyte antigen 6 complex, locus E (LY6E), mRNA.	NM_002346.1	9.79	8.64	-1.15	7.93
ILMN_1655429	TNFAIP1	tumor necrosis factor, alpha-induced protein 1 (endothelial) (TNFAIP1), mRNA.	NM_021137.3	9.11	10.07	0.96	7.93
ILMN_1709067	SAMD11	sterile alpha motif domain containing 11 (SAMD11), mRNA.	NM_152486.2	6.09	7.08	0.98	7.92
ILMN_1704063	KCNH3	potassium voltage-gated channel, subfamily H (eag-related), member 3 (KCNH3), mRNA.	NM_012284.1	7.39	6.49	-0.89	7.91
ILMN_1775268	HECW2	HECT, C2 and WW domain containing E3 ubiquitin protein ligase 2 (HECW2), mRNA.	NM_020760.1	7.02	6.02	-1	7.9
ILMN_1673543	PGM2	phosphoglucomutase 2 (PGM2), mRNA.	NM_018290.2	7.5	6.74	-0.76	7.9

Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1674985	TMEM51	transmembrane protein 51 (TMEM51), mRNA.	NM_018022.1	11.3	10.57	-0.74	7.89
ILMN_1803811	TRIB1	tribbles homolog 1 (Drosophila) (TRIB1), mRNA.	NM_025195.2	9.93	10.82	0.88	7.88
ILMN_1669820	KRT6B	keratin 6B (KRT6B), mRNA.	NM_005555.3	10.36	11.31	0.95	7.88
ILMN_1830462	XYLT1	xylosyltransferase I (XYLT1), mRNA.	NM_022166.3	5.83	6.67	0.84	7.88
ILMN_1803818	NMNAT2	nicotinamide nucleotide adenyllyltransferase 2 (NMNAT2), transcript variant 1, mRNA.	NM_015039.2	7.26	6.12	-1.14	7.87
ILMN_1754576	KRT6C	keratin 6C (KRT6C), mRNA.	NM_173086.3	6.66	7.79	1.13	7.87
ILMN_1709747	ENDOGL1	endonuclease G-like 1 (ENDOGL1), mRNA.	NM_005107.2	10.47	9.67	-0.79	7.86
ILMN_2337880	NRG2	neuregulin 2 (NRG2), transcript variant 4, mRNA.	NM_013983.1	6.76	5.74	-1.02	7.85
ILMN_2392546	PAICS	phosphoribosylaminimidazole carboxylase, phosphoribosylaminimidazole succinocarboxamide synthetase (PAICS), transcript variant 1, mRNA.	NM_006452.3	10.85	10.07	-0.78	7.84
ILMN_1671265	ING2	inhibitor of growth family, member 2 (ING2), mRNA.	NM_001564.2	8.87	8.22	-0.66	7.84
ILMN_2400648	SRGAP3	SLIT-ROBO Rho GTPase activating protein 3 (SRGAP3), transcript variant 2, mRNA.	NM_001033117.1	6.92	6.04	-0.88	7.83
ILMN_1729417	GNE	glucosamine (UDP-N-acetyl)-2-epimerase/N-acetylmannosamine kinase (GNE), mRNA.	NM_005476.3	10.13	9.08	-1.05	7.83
ILMN_1776188	MAP1LC3A	microtubule-associated protein 1 light chain 3 alpha (MAP1LC3A), transcript variant 2, mRNA.	NM_181509.1	9.02	9.78	0.76	7.83
ILMN_1790891	CKAP4	cytoskeleton-associated protein 4 (CKAP4), mRNA.	NM_006825.2	10.5	11.53	1.03	7.83
ILMN_1761260	COBL1	COBL-like 1 (COBL1), mRNA.	NM_014900.3	11.54	10.89	-0.65	7.82
ILMN_2087692	CYBRD1	cytochrome b reductase 1 (CYBRD1), mRNA.	NM_024843.2	9.02	7.98	-1.04	7.81
ILMN_1712431	FAM113B	family with sequence similarity 113, member B (FAM113B), mRNA.	NM_138371.1	9.92	10.68	0.76	7.81
ILMN_1792384	HABP4	hyaluronan binding protein 4 (HABP4), mRNA.	NM_014282.1	7.54	8.37	0.83	7.81
ILMN_1657870	ABL2	v-abl Abelson murine leukemia viral oncogene homolog 2 (arg, Abelson-related gene) (ABL2), transcript variant a, mRNA.	NM_005158.3	6.36	7.53	1.16	7.79
ILMN_1737484	RTN4R	reticulon 4 receptor (RTN4R), mRNA.	NM_023004.5	8.02	8.94	0.91	7.79
ILMN_2327346	SSBP4	single stranded DNA binding protein 4 (SSBP4), transcript variant 1, mRNA.	NM_032627.2	8.06	7.15	-0.91	7.78
ILMN_1798163	UPF3B	UPF3 regulator of nonsense transcripts homolog B (yeast) (UPF3B), transcript variant 2, mRNA.	NM_023010.2	10.31	9.6	-0.71	7.78
ILMN_1734742	ARHGDI	Rho GDP dissociation inhibitor (GDI) alpha (ARHGDI), mRNA.	NM_004309.3	9.01	9.96	0.96	7.78
ILMN_1660063	POLE4	polymerase (DNA-directed), epsilon 4 (p12 subunit) (POLE4), mRNA.	NM_019896.2	11.33	12	0.67	7.77
ILMN_1744146	PTTG2	pituitary tumor-transforming 2 (PTTG2), mRNA.	NM_006607.2	8.98	9.87	0.89	7.77
ILMN_2359601	CAMK2G	calcium/calmodulin-dependent protein kinase (CaM kinase) II gamma (CAMK2G), transcript variant 5, mRNA.	NM_172172.1	8.55	7.49	-1.06	7.76
ILMN_1736316	LOC652767	PREDICTED: hypothetical LOC652767 (LOC652767), mRNA.	XM_942408.1	6.9	6.05	-0.86	7.76
ILMN_2408572	RNASE4	ribonuclease, RNase A family, 4 (RNASE4), transcript variant 1, mRNA.	NM_194430.1	7.61	6.78	-0.82	7.76
ILMN_1778523	KLF9	Kruppel-like factor 9 (KLF9), mRNA.	NM_001206.2	7.46	6.65	-0.8	7.76
ILMN_2162860	SLFN11	schlafen family member 11 (SLFN11), mRNA.	NM_152270.2	7.35	6.44	-0.9	7.76
ILMN_2068991	TBC1D3G	TBC1 domain family, member 3G (TBC1D3G), mRNA.	NM_001040282.1	8.01	7.08	-0.93	7.75
ILMN_1693789	ALPP	alkaline phosphatase, placental (Regan isozyme) (ALPP), mRNA.	NM_001632.3	14.37	13.62	-0.75	7.74
ILMN_1675448	ZFP36L1	zinc finger protein 36, C3H type-like 1 (ZFP36L1), mRNA.	NM_004926.2	11.51	12.29	0.78	7.74
ILMN_1790202	C1orf35	chromosome 1 open reading frame 35 (C1orf35), mRNA.	NM_024319.2	9.29	8.56	-0.72	7.73
ILMN_1689318	NUAK1	NUAK family, SNF1-like kinase, 1 (NUAK1), mRNA.	NM_014840.2	10.76	11.53	0.77	7.72
ILMN_1798270	C11orf75	chromosome 11 open reading frame 75 (C11orf75), mRNA.	NM_020179.1	6.52	7.53	1.01	7.71
ILMN_1739594	ACOT11	acyl-CoA thioesterase 11 (ACOT11), transcript variant 2, mRNA.	NM_147161.2	9.51	10.24	0.72	7.71
ILMN_1899317		BX118287 Soares placenta Nb2HP cDNA clone IMAGEg998N04207, mRNA sequence		7.89	6.9	-0.98	7.7
ILMN_1779147	ENC1	ectodermal-neural cortex (with BTB-like domain) (ENC1), mRNA.	NM_003633.1	7.35	8.77	1.41	7.7
ILMN_1803977	GALNT1	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylglucosaminyltransferase 1 (GalNAc-T1) (GALNT1), mRNA.	NM_020474.2	7.35	8.28	0.92	7.7
ILMN_1781356	TSC2D2	TSC22 domain family, member 3 (TSC2D2), transcript variant 1, mRNA.	NM_198057.1	7.46	6.39	-1.07	7.69
ILMN_1677814	ABCC3	ATP-binding cassette, sub-family C (CFTR/MRP), member 3 (ABCC3), mRNA.	NM_003786.2	10.91	11.67	0.76	7.69
ILMN_1838691		BX116929 Soares multiple sclerosis 2NbHMSP cDNA clone IMAGEg998E17622, mRNA sequence		9.04	10.01	0.96	7.68
ILMN_1757210	CALML4	calmodulin-like 4 (CALML4), transcript variant 1, mRNA.	NM_001031733.1	8.76	7.93	-0.84	7.67
ILMN_1731343	LDLRAD1	low density lipoprotein receptor class A domain containing 1 (LDLRAD1), mRNA.	NM_001010978.2	6.87	5.75	-1.11	7.67
ILMN_2343278	PPAP2A	phosphatidic acid phosphatase type 2A (PPAP2A), transcript variant 2, mRNA.	NM_176895.1	8.93	9.76	0.83	7.67
ILMN_1864166		cDNA clone IMAGE:6254031		7.33	6.4	-0.93	7.66
ILMN_1753613	HOXA5	homeobox A5 (HOXA5), mRNA.	NM_019102.2	11.72	11.09	-0.63	7.66
ILMN_1708348	ADAM8	ADAM metalloproteinase domain 8 (ADAM8), mRNA.	NM_001109.3	7	6.08	-0.92	7.64
ILMN_2344216	STX2	syntaxin 2 (STX2), transcript variant 1, mRNA.	NM_001980.2	8.59	9.36	0.76	7.64
ILMN_1664738	C11orf54	chromosome 11 open reading frame 54 (C11orf54), mRNA.	NM_014039.2	9.3	8.41	-0.89	7.63
ILMN_1725791	PTPLA	protein tyrosine phosphatase-like (proline instead of catalytic arginine), member A (PTPLA), mRNA.	NM_014241.3	8.45	9.18	0.73	7.63
ILMN_1667825	MLKL	mixed lineage kinase domain-like (MLKL), mRNA.	NM_152649.1	9.29	8.24	-1.04	7.62
ILMN_2380494	ANXA11	annexin A11 (ANXA11), transcript variant a, mRNA.	NM_001157.2	9.98	9.26	-0.72	7.62
ILMN_1800142	LAMB3	laminin, beta 3 (LAMB3), transcript variant 2, mRNA.	NM_001017402.1	6.28	7.21	0.93	7.62
ILMN_1733756	COL12A1	collagen, type XII, alpha 1 (COL12A1), transcript variant short, mRNA.	NM_080645.2	8.67	9.6	0.92	7.6
ILMN_1791147	YPEL3	yippee-like 3 (Drosophila) (YPEL3), mRNA.	NM_031477.4	9.44	8.65	-0.79	7.59
ILMN_1653871	NAMPT	nicotinamide phosphoribosyltransferase (NAMPT), mRNA.	NM_005746.2	7.51	8.63	1.12	7.59
ILMN_2072357	IRF6	interferon regulatory factor 6 (IRF6), mRNA.	NM_006147.2	9.84	10.66	0.82	7.57
ILMN_2358540	RBMS1	RNA binding motif, single stranded interacting protein 1 (RBMS1), transcript variant 3, mRNA.	NM_002897.3	10.21	10.95	0.74	7.57
ILMN_2278433	LOC285074	hypothetical protein LOC285074 (LOC285074), mRNA.	NM_001012626.1	9.78	9.04	-0.74	7.55
ILMN_1742824	SPATA13	spermatogenesis associated 13 (SPATA13), mRNA.	NM_153023.1	7.18	6.23	-0.94	7.55
ILMN_1723962	LXN	latexin (LXN), mRNA.	NM_020169.2	10.35	9.68	-0.67	7.55
ILMN_1788547	GCLM	glutamate-cysteine ligase, modifier subunit (GCLM), mRNA.	NM_002061.2	10.8	11.59	0.79	7.55
ILMN_1704702	MCM7	minichromosome maintenance complex component 7 (MCM7), transcript variant 1, mRNA.	NM_005916.3	7.98	6.91	-1.07	7.54
ILMN_1746720	C18orf17	chromosome 18 open reading frame 17 (C18orf17), mRNA.	NM_153211.2	8.4	7.62	-0.78	7.54
ILMN_1788166	TTK	TTK protein kinase (TTK), mRNA.	NM_003318.3	8.94	7.87	-1.08	7.53
ILMN_1763265	CHMP1B	chromatin modifying protein 1B (CHMP1B), mRNA.	NM_020412.3	10.7	11.35	0.66	7.53
ILMN_2244009	LBH	limb bud and heart development homolog (mouse) (LBH), mRNA.	NM_030915.1	6.04	7.12	1.07	7.53
ILMN_1683998	CREG2	cellular repressor of E1A-stimulated genes 2 (CREG2), mRNA.	NM_153836.2	8.18	9.52	1.34	7.53
ILMN_1674941	TMEM16F	transmembrane protein 16F (TMEM16F), mRNA.	NM_001025356.1	10.45	11.29	0.84	7.53
ILMN_2366972	NUDT6	nudix (nucleoside diphosphate linked moiety X)-type motif 6 (NUDT6), transcript variant 1, mRNA.	NM_007083.3	7.68	6.8	-0.88	7.49
ILMN_1809384	CYP4F12	cytochrome P450, family 4, subfamily F, polypeptide 12 (CYP4F12), mRNA.	NM_023944.2	10.88	10.06	-0.82	7.49
ILMN_1725946	IRF6	interferon regulatory factor 6 (IRF6), mRNA.	NM_006147.2	10.93	11.58	0.65	7.48
ILMN_1788203	HEY1	hair/enhancer-of-split related with YRPW motif 1 (HEY1), transcript variant 2, mRNA.	NM_001040708.1	6.42	7.24	0.82	7.48
ILMN_1658628	C14orf72	PREDICTED: chromosome 14 open reading frame 72 (C14orf72), mRNA.	XM_944937.2	6.76	6.04	-0.71	7.47
ILMN_2093674	GMFB	glia maturation factor, beta (GMFB), mRNA.	NM_004124.2	10.04	10.84	0.81	7.47
ILMN_2313079	NLRP1	NLR family, pyrin domain containing 1 (NLRP1), transcript variant 4, mRNA.	NM_033007.3	5.61	6.5	0.89	7.45
ILMN_1654653	KLC1	kinesin light chain 1 (KLC1), transcript variant 1, mRNA.	NM_005552.4	9.04	9.72	0.67	7.45
ILMN_1695759	AMDHD2	amidohydrolase domain containing 2 (AMDHD2), mRNA.	NM_015944.2	7.55	6.64	-0.91	7.44
ILMN_1807291	CYP1A1	cytochrome P450, family 1, subfamily A, polypeptide 1 (CYP1A1), mRNA.	NM_000499.2	8.05	6.81	-1.24	7.44
ILMN_1782743	LETMD1	LETMD1 domain containing 1 (LETMD1), transcript variant 1, mRNA.	NM_015416.3	10.64	9.77	-0.87	7.44
ILMN_1796589	TRIP13	thyroid hormone receptor interactor 13 (TRIP13), mRNA.	NM_004237.2	9.21	8.36	-0.86	7.44
ILMN_1751097	CREB3L2	cAMP responsive element binding protein 3-like 2 (CREB3L2), mRNA.	NM_194071.2	8.55	9.33	0.78	7.44
ILMN_2375003	MAP4K4	mitogen-activated protein kinase kinase kinase kinase 4 (MAP4K4), transcript variant 3, mRNA.	NM_145687.2	7.53	8.35	0.82	7.44
ILMN_1797744	TPPP3	tubulin polymerization-promoting protein family member 3 (TPPP3), mRNA.	NM_015964.2	6.78	5.96	-0.82	7.43
ILMN_2405521	MTHFD2	methylene tetrahydrofolate dehydrogenase (NADP+ dependent) 2, methylenetetrahydrofolate cyclohydrolase (MTHFD2), nuclear DNA associated protein 2, mRNA.	NM_001040409.1	8.82	9.71	0.89	7.43
ILMN_1687960	LIMK2	LIM domain kinase 2 (LIMK2), transcript variant 2b, mRNA.	NM_016733.2	7.7	8.55	0.84	7.42
ILMN_2401826	FTS1	FtsI homolog 1 (E. coli) (FTS1), transcript variant 1, mRNA.	NM_012280.2	7.06	8.02	0.96	7.42
ILMN_2249018	LOC389816	cytokeratin associated protein (LOC389816), mRNA.	NM_001013653.1	7.31	6.41	-0.9	7.4
ILMN_1813837	C9orf9	chromosome 9 open reading frame 9 (C9orf9), mRNA.	NM_018956.3	9.49	8.75	-0.74	7.38
ILMN_1674063	OAS2	2'-5'-oligoadenylate synthetase 2, 69/71kDa (OAS2), transcript variant 1, mRNA.	NM_016817.2	7.5	6.08	-1.42	7.38
ILMN_1723843	CSNK2A2	casein kinase 2, alpha prime polypeptide (CSNK2A2), mRNA.	NM_001896.2	11.06	10.32	-0.74	7.38
ILMN_1805225	MBOAT5	membrane bound O-acyltransferase domain containing 5 (MBOAT5), mRNA.	NM_005768.5	10.18	9.4	-0.77	7.38
ILMN_1687978	PHLDA1	pleckstrin homology-like domain, family A, member 1 (PHLDA1), mRNA.	NM_007350.3	9.16	10.31	1.15	7.38
ILMN_1752455	DOCK5	dedicator of cytokinesis 5 (DOCK5), mRNA.	NM_024940.6	8.04	9.08	1.04	7.38
ILMN_2334210	ITGB4	integrin, beta 4 (ITGB4), transcript variant 2, mRNA.	NM_001005619.1	10.81	11.82	1	7.36
ILMN_1886515		clone TESTIS-609 mRNA sequence		9.61	10.57	0.95	7.36
ILMN_1701006	HEXIM2	hexamethylene bis-acetamide inducible 2 (HEXIM2), mRNA.	NM_144608.1	7.66	6.72	-0.94	7.35
ILMN_1672076	WFDC10B	WAP four-disulfide core domain 10B (WFDC10B), transcript variant 1, mRNA.	NM_172006.2	6.57	5.74	-0.83	7.33
ILMN_1827283	LOC730704	PREDICTED: hypothetical protein LOC730704 (LOC730704), mRNA.	XM_00128267.1	7.1	6.35	-0.75	7.33

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1761560	PHF13	PHD finger protein 13 (PHF13), mRNA.	NM_153812.1	10.05	9.45	-0.6	7.33
ILMN_1797236	TGM2	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM2), transcript variant 2, mRNA.	NM_198951.1	5.98	7.13	1.15	7.33
ILMN_1720623	SYTL3	synaptotagmin-like 3 (SYTL3), mRNA.	NM_001009991.2	6.83	6.05	-0.78	7.32
ILMN_1697448	TXNIP	thioredoxin interacting protein (TXNIP), mRNA.	NM_006472.2	11.73	10.78	-0.95	7.32
ILMN_12143685	CLDN7	claudin 7 (CLDN7), mRNA.	NM_001307.3	10.84	10.07	-0.77	7.31
ILMN_1724424	PRRT2	proline-rich transmembrane protein 2 (PRRT2), mRNA.	NM_145239.1	7.79	6.78	-1.01	7.31
ILMN_1656718	DEF8	differentially expressed in FDCP 8 homolog (mouse) (DEF8), transcript variant 2, mRNA.	NM_017702.2	7.75	8.61	0.86	7.31
ILMN_1759598	DLX5	distal-less homeobox 5 (DLX5), mRNA.	NM_005221.5	7.65	8.39	0.74	7.3
ILMN_1680626	PDI6	protein disulfide isomerase family A, member 6 (PDI6), mRNA.	NM_005742.2	8.89	9.63	0.74	7.3
ILMN_1792660	CAMSAP1L1	calmodulin regulated spectrin-associated protein 1-like 1 (CAMSAP1L1), mRNA.	NM_203459.1	9.37	10.21	0.85	7.28
ILMN_2370208	CMTM3	CKLF-like MARVEL transmembrane domain containing 3 (CMTM3), transcript variant 5, mRNA.	NM_001048251.1	7.03	7.92	0.9	7.28
ILMN_1729095	PDZD2	PDZ domain containing 2 (PDZD2), mRNA.	NM_178140.2	7.93	7	-0.93	7.26
ILMN_1718285	HOXC8	homeobox C8 (HOXC8), mRNA.	NM_022658.3	8.11	9.09	0.98	7.25
ILMN_1738027	BRCA1	breast cancer 1, early onset (BRCA1), transcript variant BRCA1-delta14-17, mRNA.	NM_007299.2	8.73	7.66	-1.07	7.24
ILMN_1694778	LOC646723	PREDICTED: similar to Keratin, type I cytoskeletal 18 (CytoKeratin-18) (CK-18) (LOC646723), mRNA.	XR_017241.1	12.78	12.04	-0.73	7.24
ILMN_1700337	TROAP	trophinin associated protein (tastin) (TROAP), mRNA.	NM_005480.2	8.72	7.82	-0.9	7.24
ILMN_1718960	SERPINB8	serpin peptidase inhibitor, clade B (ovalbumin), member 8 (SERPINB8), transcript variant 2, mRNA.	NM_198833.1	8.89	9.76	0.87	7.24
ILMN_1859908		cDNA clone MGC:13035 IMAGE:3613409, complete cds		9.32	8.67	-0.65	7.23
ILMN_2107068	HOXA2	homeobox A2 (HOXA2), mRNA.	NM_006735.3	9.5	8.67	-0.83	7.23
ILMN_2347424	MBOAT2	membrane bound O-acyltransferase domain containing 2 (MBOAT2), mRNA.	NM_138799.2	8	9.03	1.02	7.22
ILMN_1750373	KAL1	Kallmann syndrome 1 sequence (KAL1), mRNA.	NM_000216.2	6.43	7.53	1.1	7.21
ILMN_1776464	PARP4	poly (ADP-ribose) polymerase family, member 4 (PARP4), mRNA.	NM_006437.3	12.35	11.55	-0.8	7.21
ILMN_2232157	SLMO1	slowmo homolog 1 (Drosophila) (SLMO1), mRNA.	NM_006553.2	7.76	8.59	0.83	7.2
ILMN_1795906	PCBD1	pterin-4 alpha-carbinolamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (PCBD1), mRNA.	NM_000281.2	10.27	9.53	-0.74	7.19
ILMN_1757338	PLSCR4	phospholipid scramblase 4 (PLSCR4), mRNA.	NM_020353.1	7.61	6.7	-0.91	7.19
ILMN_1680507	PPP2R2C	protein phosphatase 2 (formerly 2A), regulatory subunit B, gamma isoform (PPP2R2C), transcript variant 2, mRNA.	NM_181876.2	6.67	7.59	0.92	7.19
ILMN_2233454	SPTLC3	serine palmitoyltransferase, long chain base subunit 3 (SPTLC3), mRNA.	NM_018327.2	9.37	8.41	-0.96	7.18
ILMN_1771385	GBP4	guanylate binding protein 4 (GBP4), mRNA.	NM_052941.3	6.83	6.02	-0.81	7.18
ILMN_1804822	SRXN1	sulfiredoxin 1 homolog (S. cerevisiae) (SRXN1), mRNA.	NM_080725.1	9.8	10.48	0.68	7.18
ILMN_1654639	HERC6	hect domain and RLD 6 (HERC6), mRNA.	NM_017912.3	7.01	6.09	-0.92	7.17
ILMN_1853167		UI-H-DiO-auw-h-24-0-Ui.s1 NCI CGAP DiO cDNA clone IMAGE:5875271 3, mRNA sequence		8.1	6.94	-1.16	7.17
ILMN_1745079	TRIM2	tripartite motif-containing 2 (TRIM2), mRNA.	NM_015271.2	9.18	8.14	-1.04	7.17
ILMN_1712291	MICAL2	MICAL-like 2 (MICAL2), transcript variant 1, mRNA.	NM_182924.2	6.7	7.81	1.11	7.17
ILMN_1742788	PKD1L2	polycystic kidney disease 1-like 2 (PKD1L2), transcript variant 1, mRNA.	NM_052892.3	6.9	6.08	-0.82	7.16
ILMN_1686989	INSIG1	insulin induced gene 1 (INSIG1), transcript variant 2, mRNA.	NM_198336.1	8.68	9.8	1.12	7.16
ILMN_1677963	TMCC1	transmembrane and coiled-coil domain family 1 (TMCC1), transcript variant 1, mRNA.	NM_001017395.1	6.47	7.48	1	7.16
ILMN_2323848	PARD6A	par-6 partitioning defective 6 homolog alpha (C. elegans) (PARD6A), transcript variant 1, mRNA.	NM_016948.2	7.25	6.33	-0.91	7.15
ILMN_1800993	CLUAP1	clusterin associated protein 1 (CLUAP1), transcript variant 2, mRNA.	NM_024793.1	8.94	7.89	-1.05	7.15
ILMN_1849117		mRNA full length insert cDNA clone EUOIMAGE 151432		7.23	6.41	-0.82	7.15
ILMN_1787648	GPR125	PREDICTED: G protein-coupled receptor 125, transcript variant 4 (GPR125), mRNA.	XM_944791.1	9.81	8.61	-1.2	7.15
ILMN_1675640	OAS1	2',5'-oligoadenylate synthetase 1, 40/46kDa (OAS1), transcript variant 3, mRNA.	NM_001032409.1	7.7	6.56	-1.14	7.14
ILMN_1773742	DNAJB9	DnaJ (Hsp40) homolog, subfamily B, member 9 (DNAJB9), mRNA.	NM_012328.1	7.33	8.06	0.73	7.14
ILMN_1739236	ZNF668	zinc finger protein 668 (ZNF668), mRNA.	NM_024706.3	8.85	9.5	0.65	7.14
ILMN_1719986	PIK3IP1	phosphoinositide-3-kinase interacting protein 1 (PIK3IP1), mRNA.	NM_052880.3	10.8	10.02	-0.78	7.13
ILMN_1807972	MICAL1	microtubule associated monooxygenase, calponin and LIM domain containing 1 (MICAL1), mRNA.	NM_022765.2	6.63	7.63	1.01	7.12
ILMN_1735579	CG88	chorionic gonadotropin, beta polypeptide 8 (CG88), mRNA.	NM_033183.2	6.13	6.98	0.84	7.12
ILMN_1733176	LIMS1	PREDICTED: LIM and senescent cell antigen-like domains 1 (LIMS1), mRNA.	XM_938773.1	11.6	12.36	0.76	7.1
ILMN_1661708	LGALS7	lectin, galactoside-binding, soluble, 7 (galectin 7) (LGALS7), mRNA.	NM_002307.1	12.31	12.98	0.67	7.09
ILMN_1678962	OFFB	DNA fragmentation factor, 40kDa, beta polypeptide (caspase-activated DNase) (OFFB), mRNA.	NM_004402.2	8.63	7.53	-1.09	7.08
ILMN_1727178	FLJ45803	FLJ45803 protein (FLJ45803), mRNA.	NM_207429.2	6.64	5.83	-0.81	7.08
ILMN_1719649	TMEM63A	transmembrane protein 63A (TMEM63A), mRNA.	NM_014698.1	7.25	6.36	-0.89	7.07
ILMN_1718070	CASP9	caspase 9, apoptosis-related cysteine peptidase (CASP9), transcript variant beta, mRNA.	NM_032996.1	7.92	7.13	-0.79	7.07
ILMN_1757877	HCFCL1R1	host cell factor C1 regulator 1 (XPO1 dependent) (HCFCL1R1), transcript variant 3, mRNA.	NM_001002018.1	11.2	10.55	-0.65	7.07
ILMN_1696956	ARID3B	AT rich interactive domain 3B (BRIGHT-like) (ARID3B), mRNA.	NM_006465.2	9.11	9.81	0.69	7.07
ILMN_1716733	MYOM2	myomesin (M-protein) 2, 165kDa (MYOM2), mRNA.	NM_003970.1	7.63	6.87	-0.75	7.06
ILMN_2390853	CTSH	cathepsin H (CTSH), transcript variant 1, mRNA.	NM_004390.2	13.65	13.02	-0.63	7.06
ILMN_1690454	C3orf54	chromosome 3 open reading frame 54 (C3orf54), mRNA.	NM_203370.1	9.94	10.66	0.72	7.06
ILMN_2380771	AKR1A1	aldo-keto reductase family 1, member A1 (aldehyde reductase) (AKR1A1), transcript variant 2, mRNA.	NM_153326.1	12.03	11.35	-0.68	7.04
ILMN_2337655	WARS	tryptophanyl-tRNA synthetase (WARS), transcript variant 1, mRNA.	NM_004184.3	10.54	11.15	0.6	7.04
ILMN_2409298	NUSAP1	nucleolar and spindle associated protein 1 (NUSAP1), transcript variant 2, mRNA.	NM_018454.5	9.89	9.17	-0.72	7.02
ILMN_1824362		BX105338 Soares pregnant uterus NbHPU cDNA clone IMAGp998C114347, mRNA sequence		8.03	9.03	0.99	7.02
ILMN_2367671	LIMK2	LIM domain kinase 2 (LIMK2), transcript variant 2b, mRNA.	NM_016733.2	7.8	8.65	0.85	7.02
ILMN_1670809	NRM	nrin (nuclear envelope membrane protein) (NRM), mRNA.	NM_007243.1	7.91	6.83	-1.08	7.01
ILMN_2387952	FAM134B	family with sequence similarity 134, member B (FAM134B), transcript variant 1, mRNA.	NM_001034850.1	9.15	8.39	-0.77	7.01
ILMN_2134555	KCTD3	potassium channel tetramerisation domain containing 3 (KCTD3), mRNA.	NM_016121.3	10.68	9.71	-0.96	7.01
ILMN_1711627	SLAH1	seven in absentia homolog 1 (Drosophila) (SLAH1), transcript variant 2, mRNA.	NM_001006610.1	11.55	12.28	0.73	7.01
ILMN_1755954	CPEB3	cytoplasmic polyadenylation element binding protein 3 (CPEB3), mRNA.	NM_014912.3	8.62	7.53	-1.09	7
ILMN_1712545	S100A3	S100 calcium binding protein A3 (S100A3), mRNA.	NM_002960.1	10.53	11.24	0.71	7
ILMN_1674661	CIRBP	cold inducible RNA binding protein (CIRBP), mRNA.	NM_001280.1	12.15	11.44	-0.71	6.99
ILMN_1665437	CYP2E1	cytochrome P450, family 2, subfamily E, polypeptide 1 (CYP2E1), mRNA.	NM_000773.3	8.93	8.18	-0.75	6.99
ILMN_1657550	MVD	mevalonate (diphospho) decarboxylase (MVD), mRNA.	NM_002461.1	8.6	9.4	0.79	6.99
ILMN_1716616	MARVELD3	MARVEL domain containing 3 (MARVELD3), transcript variant 2, mRNA.	NM_052858.3	8.64	7.76	-0.87	6.97
ILMN_1810962	PTPRK	protein tyrosine phosphatase, receptor type, K (PTPRK), mRNA.	NM_002844.2	9.88	10.82	0.93	6.97
ILMN_2054392	PP1L1	peptidylprolyl isomerase (cyclophilin)-like 1 (PP1L1), mRNA.	NM_016059.3	8.38	9.23	0.85	6.96
ILMN_1673769	KCNG1	potassium voltage-gated channel, subfamily G, member 1 (KCNG1), mRNA.	NM_002237.3	7.03	8.08	1.05	6.96
ILMN_2071826	RNF152	ring finger protein 152 (RNF152), mRNA.	NM_173557.2	8.4	9.19	0.8	6.95
ILMN_1723709	C9orf116	chromosome 9 open reading frame 116 (C9orf116), transcript variant 2, mRNA.	NM_144654.2	8.82	7.95	-0.87	6.93
ILMN_1737611	VAMP1	vesicle-associated membrane protein 1 (synaptobrevin 1) (VAMP1), transcript variant 2, mRNA.	NM_199245.1	10.13	9.47	-0.66	6.93
ILMN_2169439	ITGAV	integrin, alpha V (vitronectin receptor, alpha polypeptide, antigen CD51) (ITGAV), mRNA.	NM_002210.2	8.33	9.83	1.5	6.93
ILMN_1724877	PARD6G	par-6 partitioning defective 6 homolog gamma (C. elegans) (PARD6G), mRNA.	NM_032510.3	7.17	8.14	0.97	6.92
ILMN_1658094	ZNF365	zinc finger protein 365 (ZNF365), transcript variant A, mRNA.	NM_014951.2	9.75	10.54	0.79	6.91
ILMN_1910948		mRNA; cDNA DKFZp686J1595 (from clone DKFZp686J1595)		6.59	7.61	1.02	6.9
ILMN_1746158	HOXD11	homeobox D11 (HOXD11), mRNA.	NM_021192.2	8.36	9.28	0.92	6.89
ILMN_1820244		cDNA clone IMAGE:6250506		7.41	8.14	0.73	6.88
ILMN_1769891	CDH4	cadherin 4, type 1, R-cadherin (retinal) (CDH4), mRNA.	NM_001794.2	7.15	6.38	-0.77	6.87
ILMN_1756469	GAMT	guanidinoacetate N-methyltransferase (GAMT), transcript variant 1, mRNA.	NM_000156.4	8.07	7.2	-0.87	6.87
ILMN_1793729	C15orf39	chromosome 15 open reading frame 39 (C15orf39), mRNA.	NM_015492.4	7.31	6.35	-0.97	6.87
ILMN_1685441	DDEF1L	development and differentiation enhancing factor-like 1 (DDEF1L), mRNA.	NM_017707.2	10.16	9.21	-0.95	6.86
ILMN_1659836	RAET1G	retinoic acid early transcript 1G (RAET1G), mRNA.	NM_001001788.2	7.7	6.76	-0.94	6.86
ILMN_2262444	PDE7A	phosphodiesterase 7A (PDE7A), transcript variant 2, mRNA.	NM_002604.1	9.36	10.18	0.83	6.86
ILMN_2130635	FOXRED2	FAD-dependent oxidoreductase domain containing 2 (FOXRED2), mRNA.	NM_024955.4	8.86	8.1	-0.76	6.85
ILMN_2398408	TCEAL1	transcription elongation factor A (SII)-like 1 (TCEAL1), transcript variant 2, mRNA.	NM_001006639.1	10.05	10.86	0.82	6.85
ILMN_1893679		BX098660 Soares placenta Nb2HP cDNA clone IMAGp998L03214, mRNA sequence		7.93	6.88	-1.05	6.84
ILMN_1701881	ZNF365	zinc finger protein 365 (ZNF365), transcript variant B, mRNA.	NM_199450.2	6.1	6.95	0.85	6.84
ILMN_1695658	KIF20A	kinesin family member 20A (KIF20A), mRNA.	NM_005733.1	9.96	9.32	-0.64	6.83
ILMN_2397521	JMJD3	jumonji domain containing 3, histone lysine demethylase (JMJD3), mRNA.	NM_001080424.1	6.28	7.21	0.93	6.83
ILMN_1813625	TRIM25	tripartite motif-containing 25 (TRIM25), mRNA.	NM_005082.4	9.73	8.98	-0.75	6.81
ILMN_1741970	JUP	junction plakoglobin (JUP), transcript variant 1, mRNA.	NM_002230.1	9.02	10.01	0.98	6.8
ILMN_1704164	ATP13A2	ATPase type 13A2 (ATP13A2), mRNA.	NM_022089.1	7.52	8.32	0.79	6.79
ILMN_2305112	CTH	cystathionase (cystathionine gamma-lyase) (CTH), transcript variant 2, mRNA.	NM_153742.3	8.14	7.21	-0.93	6.78
ILMN_1679438	MLF1IP	MLF1 interacting protein (MLF1IP), mRNA.	NM_024629.2	7.36	6.34	-1.02	6.78

Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1770290	CNN2	calponin 2 (CNN2), transcript variant 2, mRNA.	NM_201277.1	11.35	12.04	0.68	6.77
ILMN_1662328	CNNM3	cyclin M3 (CNNM3), transcript variant 1, mRNA.	NM_017623.4	9.9	9.18	-0.73	6.76
ILMN_1685043	CYP3A7	cytochrome P450, family 3, subfamily A, polypeptide 7 (CYP3A7), mRNA.	NM_000765.2	6.82	5.86	-0.95	6.76
ILMN_1793615	ME3	malic enzyme 3, NAD(P)+-dependent, mitochondrial (ME3), nuclear gene encoding mitochondrial protein, transcript variant 2, mRNA.	NM_001014811.1	5.94	6.6	0.66	6.76
ILMN_1744963	ERO1L	ERO1-like (S. cerevisiae) (ERO1L), mRNA.	NM_014584.1	8.62	9.29	0.66	6.75
ILMN_1659888	PPP1R14B	protein phosphatase 1, regulatory (inhibitor) subunit 14B (PPP1R14B), mRNA.	NM_138689.2	11.82	12.44	0.63	6.75
ILMN_2051381	ALDH16A1	aldehyde dehydrogenase 16 family, member A1 (ALDH16A1), mRNA.	NM_153329.2	8.16	7.26	-0.9	6.74
ILMN_1747395	SLC24A1	solute carrier family 24 (sodium/potassium/calcium exchanger), member 1 (SLC24A1), mRNA.	NM_040472.2	7.97	7.2	-0.78	6.73
ILMN_1737650	DIO2	deiodinase, iodothyronine, type II (DIO2), transcript variant 3, mRNA.	NM_001007023.2	6.97	7.86	0.89	6.73
ILMN_2150654	ZSWIM4	zinc finger, SWIM-type containing 4 (ZSWIM4), mRNA.	NM_023072.1	8.73	9.33	0.6	6.73
ILMN_1689001	CDK4	cyclin-dependent kinase 4 (CDK4), mRNA.	NM_000075.2	11.19	10.62	-0.57	6.72
ILMN_1740762	GRB7	growth factor receptor-bound protein 7 (GRB7), transcript variant 1, mRNA.	NM_005310.2	7.59	6.63	-0.97	6.72
ILMN_2143155	KIF11	kinesin family member 11 (KIF11), mRNA.	NM_004523.2	9.14	8.24	-0.9	6.72
ILMN_1772894	TMEM27	transmembrane protein 27 (TMEM27), mRNA.	NM_020665.3	7.75	6.64	-1.11	6.72
ILMN_1780898	PRKCH	protein kinase C, eta (PRKCH), mRNA.	NM_006255.3	9.19	9.85	0.66	6.72
ILMN_2193591	UNC93B1	unc-93 homolog B1 (C. elegans) (UNC93B1), mRNA.	NM_030930.2	10.07	9.43	-0.64	6.71
ILMN_1768754	PILRB	paired immunoglobulin-like type 2 receptor beta (PILRB), transcript variant 1, mRNA.	NM_013440.3	10.06	9.12	-0.93	6.69
ILMN_2360415	PRNP	prion protein (p27-30) (Creutzfeldt-Jakob disease, Gerstmann-Strausler-Scheinker syndrome, fatal familial insomnia) (PRNP), transcript variant 1, mRNA.	NM_183079.2	12.45	13.15	0.7	6.69
ILMN_1862616	GOLPH4	golgi phosphoprotein 4 (GOLPH4), mRNA.	NM_014498.2	7.57	8.56	0.99	6.68
ILMN_2329569	C9orf116	chromosome 9 open reading frame 116 (C9orf116), transcript variant 2, mRNA.	NM_144654.2	8.45	7.68	-0.76	6.66
ILMN_1782745	RBL1	retinoblastoma-like 1 (p107) (RBL1), transcript variant 1, mRNA.	NM_002895.2	7.99	7.09	-0.9	6.66
ILMN_1757388	OCEL1	occludin/ELL domain containing 1 (OCEL1), mRNA.	NM_024578.1	9.21	8.43	-0.78	6.66
ILMN_1812616	MYO1C	myosin IC (MYO1C), transcript variant 3, mRNA.	NM_033375.4	8.86	9.68	0.82	6.66
ILMN_1797875	ALOX5AP	arachidonate 5-lipoxygenase-activating protein (ALOX5AP), mRNA.	NM_001629.2	6.66	7.43	0.76	6.65
ILMN_1765122	MAP3K2	PREDICTED: mitogen-activated protein kinase kinase kinase 2 (MAP3K2), mRNA.	XM_001128799.1	8.37	9.25	0.89	6.65
ILMN_1679267	TGM2	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM2), transcript variant 2, mRNA.	NM_198951.1	5.8	6.62	0.82	6.65
ILMN_1727671	SSH1	slingshot homolog 1 (Drosophila) (SSH1), mRNA.	NM_018984.2	7.82	8.78	0.96	6.65
ILMN_1673337	PMS2CL	PMS2 C-terminal like pseudogene (PMS2CL) on chromosome 7.	NR_002217.1	7.54	6.61	-0.93	6.64
ILMN_1715905	DSN1	DSN1, MIND kinetochore complex component, homolog (S. cerevisiae) (DSN1), mRNA.	NM_024918.2	9.41	8.39	-1.02	6.64
ILMN_1711361	ZNF319	zinc finger protein 319 (ZNF319), mRNA.	NM_020807.1	9.12	9.77	0.65	6.64
ILMN_2370365	RFC4	replication factor C (activator 1) 4, 37kDa (RFC4), transcript variant 1, mRNA.	NM_002916.3	10.6	9.65	-0.95	6.63
ILMN_1712305	CYBRD1	cytochrome b reductase 1 (CYBRD1), mRNA.	NM_024843.2	8.56	7.47	-1.1	6.63
ILMN_2415776	WWOX	WW domain containing oxidoreductase (WWOX), transcript variant 3, mRNA.	NM_130844.1	9.64	8.6	-1.04	6.63
ILMN_2230566	RAB40B	RAB40B, member RAS oncogene family (RAB40B), mRNA.	NM_006822.1	11.67	10.97	-0.7	6.62
ILMN_1810275	SLC7A7	solute carrier family 7 (cationic amino acid transporter, y+ system), member 7 (SLC7A7), mRNA.	NM_003982.2	8.85	9.6	0.75	6.62
ILMN_1803464	PHTF1	putative homeodomain transcription factor 1 (PHTF1), mRNA.	NM_006608.1	8.02	8.75	0.74	6.62
ILMN_2339835	PTGS1	prostaglandin-endoperoxide synthase 1 (prostaglandin G/H synthase and cyclooxygenase) (PTGS1), transcript variant 2, mRNA.	NM_080591.1	7.78	6.99	-0.78	6.61
ILMN_1711894	MYB	v-myb myeloblastosis viral oncogene homolog (avian) (MYB), mRNA.	NM_005375.2	6.7	5.93	-0.77	6.61
ILMN_1769694	ACCN2	amiloride-sensitive cation channel 2, neuronal (ACCN2), transcript variant 2, mRNA.	NM_001095.2	7.78	6.93	-0.85	6.6
ILMN_2353633	EMR2	egf-like module containing, mucin-like, hormone receptor-like 2 (EMR2), transcript variant 2, mRNA.	NM_152916.1	7.29	6.28	-1.01	6.6
ILMN_1654370	TESK2	testis-specific kinase 2 (TESK2), mRNA.	NM_007170.2	7.9	7.13	-0.77	6.6
ILMN_1798855	RASSF9	Ras association (RalGDS/AF-6) domain family (N-terminal) member 9 (RASSF9), mRNA.	NM_005447.3	5.97	6.77	0.8	6.6
ILMN_2112301	DRAP1	DR1-associated protein 1 (negative cofactor 2 alpha) (DRAP1), mRNA.	NM_006442.2	10.76	11.37	0.61	6.6
ILMN_1842582	AGENCOURT	14354957 NIH_MGC_191 cDNA clone IMAGE:30413554 5, mRNA sequence		8.79	8.13	-0.66	6.59
ILMN_1747223	FRYL	FRY-like (FRYL), mRNA.	NM_015030.1	7.99	8.84	0.85	6.59
ILMN_1702636	TUBB6	tubulin, beta 6 (TUBB6), mRNA.	NM_032525.1	9	9.8	0.8	6.59
ILMN_1796013	PYCR1	pyrroline-5-carboxylate reductase 1 (PYCR1), transcript variant 2, mRNA.	NM_153824.1	6.92	7.92	1	6.59
ILMN_1728858	EGFR	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian) (EGFR), transcript variant 4, mRNA.	NM_201284.1	6.81	7.76	0.95	6.56
ILMN_1763852	ACACB	acetyl-Coenzyme A carboxylase beta (ACACB), mRNA.	NM_001093.3	9.02	8.11	-0.91	6.55
ILMN_1707807	RNF128	ring finger protein 128 (RNF128), transcript variant 1, mRNA.	NM_194463.1	6.76	7.56	0.8	6.55
ILMN_2371911	MUC1	mucin 1, cell surface associated (MUC1), transcript variant 5, mRNA.	NM_001044390.1	7.97	7.13	-0.84	6.53
ILMN_2235137	FANCD2	Fanconi anemia, complementation group D2 (FANCD2), transcript variant 2, mRNA.	NM_001018115.1	8.99	8.03	-0.96	6.53
ILMN_1734781	IFNE1	interferon epsilon 1 (IFNE1), mRNA.	NM_176891.3	6.46	7.29	0.83	6.53
ILMN_1668194	LMTK3	PREDICTED: lemur tyrosine kinase 3 (LMTK3), mRNA.	XM_936372.2	9.43	8.62	-0.82	6.52
ILMN_1813386	CORO6	coronin 6 (CORO6), mRNA.	NM_032854.2	8.11	9.01	0.9	6.52
ILMN_1653278	MUC20	mucin 20, cell surface associated (MUC20), transcript variant 5, mRNA.	NM_001098516.1	7.42	6.67	-0.76	6.51
ILMN_1830985	RAD51AP2	RAD51-associated protein 2 (RAD51AP2), mRNA.	NM_001099218.2	7.27	6.49	-0.78	6.51
ILMN_1742260	SFA2	sperm specific antigen 2 (SFA2), mRNA.	NM_006751.4	8.4	9.39	0.99	6.49
ILMN_1658494	C13orf15	chromosome 13 open reading frame 15 (C13orf15), mRNA.	NM_014059.2	9.43	8.76	-0.67	6.47
ILMN_2085236	SNX24	sorting nexin 24 (SNX24), mRNA.	NM_014035.1	7.56	8.55	0.99	6.46
ILMN_2401822	FTSJ1	FtsJ homolog 1 (E. coli) (FTSJ1), transcript variant 1, mRNA.	NM_012280.2	9.61	10.42	0.8	6.43
ILMN_2349600	BRD8	bromodomain containing 8 (BRD8), transcript variant 3, mRNA.	NM_183359.1	9.93	9.24	-0.69	6.4
ILMN_1748970	ATAD4	ATPase family, AAA domain containing 4 (ATAD4), mRNA.	NM_024320.2	8.74	7.86	-0.88	6.39
ILMN_2215881	ARHGAP11B	Rho GTPase activating protein 11B (ARHGAP11B), mRNA. XM_931045 XM_931050	NM_001039841.1	8.32	7.29	-1.03	6.39
ILMN_2377829	NANOS1	nanos homolog 1 (Drosophila) (NANOS1), transcript variant 2, mRNA.	NM_001009553.1	8.19	7.18	-1.01	6.38
ILMN_1701244	ITFG2	integrin alpha FG-GAP repeat containing 2 (ITFG2), mRNA.	NM_018463.2	8.52	7.91	-0.61	6.37
ILMN_1893697		nj54b12.s1 NCI_CGAP_P9 cDNA clone IMAGE:996287, mRNA sequence		7.08	6.24	-0.85	6.36
ILMN_1789733	CLIP3	CAP-GLY domain containing linker protein 3 (CLIP3), mRNA.	NM_015526.1	8.27	7.58	-0.68	6.35
ILMN_2094313	ZDHHC1	zinc finger, DHHC-type containing 1 (ZDHHC1), mRNA.	NM_013304.1	9.19	8.45	-0.74	6.35
ILMN_1658926	NOTCH3	Notch homolog 3 (Drosophila) (NOTCH3), mRNA.	NM_000435.1	9.31	8.17	-1.15	6.35
ILMN_1793461	LOC653604	PREDICTED: similar to H3 histone, family 2 isoform 2 (LOC653604), mRNA.	XM_497711.2	7.06	6.34	-0.72	6.35
ILMN_1799836	H0XA2	homeobox A2 (H0XA2), mRNA.	NM_006735.3	9.58	8.94	-0.64	6.35
ILMN_1760490	ACVR1	activin A receptor, type I (ACVR1), mRNA.	NM_001105.2	10.53	11.24	0.71	6.35
ILMN_2290118	MEGF9	multiple EGF-like domains 9 (MEGF9), mRNA.	NM_001080497.1	7.39	8.69	1.3	6.35
ILMN_2395451	ASS1	argininosuccinate synthetase 1 (ASS1), transcript variant 2, mRNA.	NM_054012.3	10.93	10.08	-0.84	6.34
ILMN_1659599	ADC	arginine decarboxylase (ADC), mRNA.	NM_052998.2	7.94	8.64	0.7	6.34
ILMN_1800575	LOC649260	PREDICTED: similar to LIM and senescent cell antigen-like domains 1 (LOC649260), mRNA.	XM_938322.1	7.49	8.33	0.84	6.34
ILMN_1668374	ITGB5	integrin, beta 5 (ITGB5), mRNA. XM_944688 XM_944693	NM_002213.3	12.57	13.1	0.52	6.34
ILMN_1772876	ZNF395	zinc finger protein 395 (ZNF395), mRNA.	NM_018660.2	10.29	9.55	-0.75	6.33
ILMN_1660624	LIMK2	LIM domain kinase 2 (LIMK2), transcript variant 1, mRNA.	NM_001031801.1	8.57	9.36	0.79	6.33
ILMN_1804277	SPRED1	sprouty-related, EVH1 domain containing 1 (SPRED1), mRNA.	NM_152594.1	9.35	10.08	0.73	6.33
ILMN_2157099	CCNA1	cyclin A1 (CCNA1), mRNA.	NM_003914.2	6.13	6.78	0.66	6.33
ILMN_2212763	ICAM3	intercellular adhesion molecule 3 (ICAM3), mRNA.	NM_002162.2	9.27	8.62	-0.65	6.32
ILMN_1691294	CTBP2	C-terminal binding protein 2 (CTBP2), transcript variant 1, mRNA.	NM_001329.2	7.22	7.93	0.71	6.32
ILMN_1800787	RFTN1	raftlin, lipid raft linker 1 (RFTN1), mRNA.	NM_015150.1	5.88	6.63	0.75	6.31
ILMN_1743933	TSZH3	teashirt zinc finger homeobox 3 (TSZH3), mRNA.	NM_020856.2	7.35	8.28	0.93	6.3
ILMN_2268068	MAPKAP1	mitogen-activated protein kinase associated protein 1 (MAPKAP1), transcript variant 6, mRNA.	NM_001006618.1	8.6	9.29	0.7	6.3
ILMN_1663454	PKP1	plakophilin 1 (ectodermal dysplasia/skin fragility syndrome) (PKP1), transcript variant 1a, mRNA.	NM_001005337.1	11.01	11.69	0.68	6.3
ILMN_1737195	CENPK	centromere protein K (CENPK), mRNA.	NM_022145.3	8.12	7.26	-0.86	6.28
ILMN_1652409	SPATA7	spermatogenesis associated 7 (SPATA7), transcript variant 2, mRNA.	NM_001040428.2	9.69	8.92	-0.77	6.28
ILMN_1786972	SARS	seryl-tRNA synthetase (SARS), mRNA.	NM_006513.2	9.25	10.02	0.77	6.27
ILMN_1727271	WARS	tryptophanyl-tRNA synthetase (WARS), transcript variant 2, mRNA.	NM_173701.1	9.51	10.26	0.75	6.26
ILMN_1761939	TIPIN	TIMELESS interacting protein (TIPIN), mRNA.	NM_017858.1	7.78	6.88	-0.9	6.25
ILMN_2402416	DNAJB6	DnaJ (Hsp40) homolog, subfamily B, member 6 (DNAJB6), transcript variant 2, mRNA.	NM_005494.2	11.07	11.73	0.66	6.24
ILMN_1769929	KLF13	Kruppel-like factor 13 (KLF13), mRNA.	NM_015995.2	10.09	10.87	0.78	6.23
ILMN_2382290	KREMEN2	kringle containing transmembrane protein 2 (KREMEN2), transcript variant 2, mRNA.	NM_024507.2	7.61	6.88	-0.73	6.22
ILMN_1695475	SEMA3C	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3C (SEMA3C), mRNA.	NM_006379.2	8.59	9.62	1.03	6.22
ILMN_1683023	PDGFC	platelet derived growth factor C (PDGFC), mRNA.	NM_016205.1	6.88	7.78	0.9	6.22
ILMN_1794781	VAV2	vav 2 guanine nucleotide exchange factor (VAV2), mRNA.	NM_003371.2	7.59	8.4	0.81	6.22
ILMN_2277099	YWHAB	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, beta polypeptide (YWHAB), transcript variant 1, mRNA.	NM_003404.3	9.52	10.18	0.66	6.22
ILMN_1655117	WDR19	WD repeat domain 19 (WDR19), mRNA.	NM_025132.3	10.26	9.69	-0.58	6.21

Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1692844	TBC1D19	TBC1 domain family, member 19 (TBC1D19), mRNA.	NM_018317.1	7.57	8.29	0.73	6.21
ILMN_1794595	GAMT	guanidinoacetate N-methyltransferase (GAMT), transcript variant 1, mRNA.	NM_000156.4	7.14	6.3	-0.84	6.2
ILMN_1773002	LOC730417	PREDICTED: hypothetical protein LOC730417 (LOC730417), mRNA.	XM_001127509.1	6.52	7.53	1.01	6.2
ILMN_1682567	CCDC106	coiled-coil domain containing 106 (CCDC106), mRNA.	NM_013301.2	10.04	9.37	-0.67	6.19
ILMN_1652952	RASAL2	RAS protein activator like 2 (RASAL2), transcript variant 1, mRNA.	NM_004841.2	6.88	7.76	0.88	6.18
ILMN_1708016	C20orf108	chromosome 20 open reading frame 108 (C20orf108), mRNA.	NM_080821.2	10.49	11.47	0.98	6.18
ILMN_1709795	RAC2	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2) (RAC2), mRNA.	NM_002872.3	10.1	9.48	-0.62	6.17
ILMN_1810953	LOC653496	PREDICTED: similar to hypothetical gene supported by AK123662 (LOC653496), mRNA.	XM_930236.1	7.9	8.71	0.81	6.17
ILMN_1694767	LOC652688	PREDICTED: similar to Zinc finger protein basoonin-1 (LOC652688), mRNA.	XM_942297.1	7.95	8.95	1	6.16
ILMN_1733746	REEP1	receptor accessory protein 1 (REEP1), mRNA.	NM_022912.1	7.58	8.49	0.91	6.16
ILMN_1717046	MOBK12B	MOB1, Mps One Binder kinase activator-like 2B (yeast) (MOBK12B), mRNA.	NM_024761.3	7.76	8.8	1.04	6.16
ILMN_1750409	RAB9A	RAB9A, member RAS oncogene family (RAB9A), mRNA.	NM_004251.3	11.01	10.45	-0.56	6.15
ILMN_1805922	EBPL	emopamil binding protein-like (EBPL), mRNA.	NM_032565.2	10.86	10.25	-0.61	6.14
ILMN_1778543	LOC653874	PREDICTED: similar to Dihydrofolate reductase, transcript variant 1 (LOC653874), mRNA.	XM_936215.1	9.39	8.47	-0.92	6.14
ILMN_1808566	TMEM180	transmembrane protein 180 (TMEM180), mRNA.	NM_024789.3	7.63	6.99	-0.64	6.14
ILMN_2169261	TNNI2	troponin I type 2 (skeletal, fast) (TNNI2), mRNA.	NM_003282.2	8.22	7.46	-0.76	6.14
ILMN_1808650	CYP39A1	cytochrome P450, family 39, subfamily A, polypeptide 1 (CYP39A1), mRNA.	NM_016593.3	7.25	6.24	-1.01	6.14
ILMN_1767343	LOC126147	hypothetical protein BC018697 (LOC126147), mRNA.	NM_145807.1	6.82	5.93	-0.88	6.14
ILMN_1735151	EIF5A2	eukaryotic translation initiation factor 5A2 (EIF5A2), mRNA.	NM_020390.5	6.92	7.58	0.66	6.14
ILMN_1801851	ALPPL2	alkaline phosphatase, placental-like 2 (ALPPL2), mRNA.	NM_031313.1	7.57	6.77	-0.8	6.13
ILMN_1784860	RFC3	replication factor C (activator 1) 3, 38kDa (RFC3), transcript variant 1, mRNA.	NM_002915.3	7.74	7.03	-0.71	6.11
ILMN_1692748	BNC1	basoonin-1 (BNC1), mRNA.	NM_001717.2	7.88	8.84	0.96	6.11
ILMN_1664761	TMEM138	transmembrane protein 138 (TMEM138), mRNA.	NM_016464.3	10.06	10.7	0.64	6.11
ILMN_1785919	LOC728229	PREDICTED: hypothetical protein LOC728229, transcript variant 3 (LOC728229), mRNA.	XM_001128450.1	7.6	8.36	0.76	6.11
ILMN_1781536	FAH	fumarylacetoacetate hydrolase (fumarylacetoacetase) (FAH), mRNA.	NM_000137.1	8.73	7.97	-0.76	6.1
ILMN_1781242	SOST	sclerosteosis (SOST), mRNA.	NM_025237.2	8.07	8.76	0.69	6.08
ILMN_1823809		cDNA: FLJ21429 fis, clone COL04205		8.6	9.44	0.84	6.08
ILMN_1751346	ERBB3	v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian) (ERBB3), transcript variant 1, mRNA.	NM_001982.2	10.18	8.99	-1.19	6.07
ILMN_1671250	CLIC4	chloride intracellular channel 4 (CLIC4), nuclear gene encoding mitochondrial protein, mRNA.	NM_013943.1	6.73	7.64	0.91	6.07
ILMN_1721605	SMYD2	SET and MYND domain containing 2 (SMYD2), mRNA.	NM_020197.1	8.92	9.65	0.73	6.07
ILMN_1867664	SPTLC3	serine palmitoyltransferase, long chain base subunit 3 (SPTLC3), mRNA.	NM_018327.2	8.46	7.53	-0.93	6.06
ILMN_1665372	FXYD3	FXYD domain containing ion transport regulator 3 (FXYD3), transcript variant 2, mRNA.	NM_021910.1	8.76	7.98	-0.78	6.05
ILMN_1714592	CDA	cytidine deaminase (CDA), mRNA.	NM_001785.2	10.71	10.05	-0.65	6.05
ILMN_1803945	HCP5	HLA complex P5 (HCP5), mRNA.	NM_006674.2	10.6	9.93	-0.67	6.05
ILMN_1686261	TOM1L2	target of myb1-like 2 (chicken) (TOM1L2), transcript variant 3, mRNA.	NM_001082968.1	8.28	7.49	-0.79	6.04
ILMN_1737988	PRNP	prion protein (p27-30) (Creutzfeldt-Jakob disease, Gerstmann-Strausler-Scheinker syndrome, fatal familial insomnia) (PRNP), transcript variant 1, mRNA.	NM_001080121.1	13.78	14.32	0.53	6.04
ILMN_2150851	SERPINB2	serpin peptidase inhibitor, clade B (ovalbumin), member 2 (SERPINB2), mRNA.	NM_002575.1	10.14	9.3	-0.84	6.03
ILMN_1719792	PHLDB2	pleckstrin homology-like domain, family B, member 2 (PHLDB2), mRNA.	NM_145753.1	7.63	8.64	1.01	6.03
ILMN_1823850		RST21348 Athersys RAGE Library cDNA, mRNA sequence		6.34	7.53	1.19	6.03
ILMN_2115005	FGD2	FYVE, RhoGEF and PH domain containing 2 (FGD2), mRNA.	NM_173558.2	7.34	8.19	0.85	6.01
ILMN_2160764	HBP1	HMG-box transcription factor 1 (HBP1), mRNA.	NM_012257.3	10.19	9.59	-0.59	6
ILMN_1780769	TUBB2C	tubulin, beta 2C (TUBB2C), mRNA.	NM_006088.5	11.8	12.4	0.61	6
ILMN_1655876	TMEM159	transmembrane protein 159 (TMEM159), mRNA.	NM_020422.3	10.2	9.38	-0.83	5.99
ILMN_1759670	AMACR	alpha-methylacyl-CoA racemase (AMACR), transcript variant 1, mRNA.	NM_014324.4	7.9	8.66	0.76	5.99
ILMN_2340027	TSPAN4	tetraspanin 4 (TSPAN4), transcript variant 6, mRNA.	NM_001025238.1	6.37	7.25	0.88	5.99
ILMN_1710207	C10orf6	chromosome 10 open reading frame 6 (C10orf6), mRNA.	NM_018121.2	9.87	9.22	-0.66	5.98
ILMN_1697971	TRIM38	tripartite motif-containing 38 (TRIM38), mRNA.	NM_006355.2	8.81	7.89	-0.92	5.97
ILMN_1721134	TGM1	transglutaminase 1 (K polypeptide epidermal type I, protein-glutamine-gamma-glutamyltransferase) (TGM1), mRNA.	NM_000359.2	8.86	7.98	-0.88	5.94
ILMN_2094396	LRRRC8	leucine rich repeat containing 8 family, member C (LRRRC8), mRNA.	NM_032270.2	7.24	8.3	1.05	5.93
ILMN_1757636	Csorf35	chromosome 5 open reading frame 35 (Csorf35), mRNA.	NM_153706.2	9.14	8.49	-0.65	5.92
ILMN_1693242	ZNF342	zinc finger protein 342 (ZNF342), mRNA.	NM_145288.1	9.18	8.5	-0.68	5.92
ILMN_1760174	MCCC1	methylcrotonoyl-Coenzyme A carboxylase 1 (alpha) (MCCC1), mRNA.	NM_020166.3	10.12	9.57	-0.55	5.92
ILMN_1763442	KIAA1202	KIAA1202 protein (KIAA1202), mRNA.	NM_020717.1	6.35	7.04	0.69	5.92
ILMN_1663171	MATN3	matrilin 3 (MATN3), mRNA.	NM_002381.4	5.92	6.65	0.73	5.92
ILMN_1794875	AGPAT9	1-acylglycerol-3-phosphate O-acyltransferase 9 (AGPAT9), mRNA.	NM_032717.3	7.48	6.59	-0.9	5.91
ILMN_2085760	ARPC1B	actin related protein 2/3 complex, subunit 1B, 41kDa (ARPC1B), mRNA.	NM_005720.2	9.31	9.94	0.63	5.91
ILMN_1736077	LIAS	lipoic acid synthetase (LIAS), nuclear gene encoding mitochondrial protein, transcript variant 1, mRNA.	NM_006859.2	9.54	8.58	-0.97	5.9
ILMN_1697460	REEP6	receptor accessory protein 6 (REEP6), mRNA.	NM_138393.1	8.27	7.51	-0.76	5.89
ILMN_2363361	SFXN4	sideroflexin 4 (SFXN4), transcript variant 3, mRNA.	NM_213650.1	9.73	9.03	-0.7	5.89
ILMN_2352190	CLIP2	CAP-GLY domain containing linker protein 2 (CLIP2), transcript variant 2, mRNA.	NM_032421.2	9.47	8.81	-0.66	5.89
ILMN_1666222	PHACTR3	phosphatase and actin regulator 3 (PHACTR3), transcript variant 3, mRNA.	NM_183246.1	5.96	6.71	0.76	5.89
ILMN_2318643	TGIF1	TGFB-induced factor homeobox 1 (TGIF1), transcript variant 1, mRNA.	NM_170695.2	9.27	10.11	0.84	5.89
ILMN_2093500	ZBED5	zinc finger, BED-type containing 5 (ZBED5), mRNA.	NM_021211.2	10.27	10.98	0.71	5.89
ILMN_2210601	RNASEL	ribonuclease L (2',5'-oligoadenylate synthetase-dependent) (RNASEL), mRNA.	NM_021133.2	9.39	8.67	-0.71	5.88
ILMN_1733519	HMGB3	high-mobility group box 3 (HMGB3), mRNA.	NM_005342.2	7.5	8.34	0.83	5.88
ILMN_1741404	MSC	musculin (activated B-cell factor-1) (MSC), mRNA.	NM_005098.3	5.67	6.34	0.67	5.88
ILMN_1795344	GOLPH4	golgi phosphoprotein 4 (GOLPH4), mRNA.	NM_014498.2	8.9	9.87	0.97	5.87
ILMN_1787813	SLC5A3	solute carrier family 5 (inositol transporters), member 3 (SLC5A3), mRNA.	NM_006933.4	7.21	6.36	-0.85	5.86
ILMN_1723481	CHST3	carbohydrate (chondroitin 6) sulfotransferase 3 (CHST3), mRNA.	NM_004273.2	7.59	8.29	0.69	5.86
ILMN_2362549	ZWINT	ZW10 interactor (ZWINT), transcript variant 3, mRNA.	NM_001005413.1	10.14	9.09	-1.05	5.85
ILMN_1720595	MDGA1	MAM domain containing glycosylphosphatidylinositol anchor 1 (MDGA1), mRNA.	NM_153487.3	8.17	8.99	0.81	5.85
ILMN_2198393	KATNA1	katanin p60 (ATPase-containing) subunit A 1 (KATNA1), mRNA.	NM_007044.2	9.77	10.42	0.66	5.84
ILMN_2352036	RTN4	reticulon 4 (RTN4), transcript variant 1, mRNA.	NM_020532.4	9.8	10.69	0.88	5.83
ILMN_2376403	TSC22D3	TSC22 domain family, member 3 (TSC22D3), transcript variant 2, mRNA.	NM_004089.3	11.8	11.03	-0.78	5.82
ILMN_2318638	TGIF1	TGFB-induced factor homeobox 1 (TGIF1), transcript variant 1, mRNA.	NM_170695.2	9.79	10.43	0.64	5.82
ILMN_2167426	ASPHD2	aspartate beta-hydroxylase domain containing 2 (ASPHD2), mRNA.	NM_020437.3	6.64	7.37	0.73	5.82
ILMN_2044226	PPP3CA	protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform (PPP3CA), mRNA.	NM_000944.2	7.67	8.76	1.08	5.82
ILMN_1838942		we85a04.x1 Soares_NFL_T_GBC_S1 cDNA clone IMAGE:2347854 3, mRNA sequence		7.83	7.02	-0.81	5.81
ILMN_1804737	RAVER2	ribonucleoprotein, PTB-binding 2 (RAVER2), mRNA.	NM_018211.2	8.3	7.24	-1.05	5.81
ILMN_2255256	MARVELD3	MARVEL domain containing 3 (MARVELD3), transcript variant 2, mRNA.	NM_052858.3	8.62	7.81	-0.81	5.8
ILMN_1723874	MRP56	mitochondrial ribosomal protein S6 (MRP56), nuclear gene encoding mitochondrial protein, mRNA.	NM_032476.2	12.5	11.97	-0.54	5.8
ILMN_2380243	LOC57228	small trans-membrane and glycosylated protein (LOC57228), transcript variant 1, mRNA.	NM_001031628.1	8.16	7.35	-0.81	5.78
ILMN_2132161	KIF18A	kinesin family member 18A (KIF18A), mRNA.	NM_031217.2	7.15	6.37	-0.78	5.78
ILMN_2292646	GAD1	glutamate decarboxylase 1 (brain, 67kDa) (GAD1), transcript variant GAD67, mRNA.	NM_000817.2	9.97	10.7	0.73	5.78
ILMN_1744295	CDKN2A	cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) (CDKN2A), transcript variant 4, mRNA.	NM_058195.2	7.1	7.9	0.8	5.78
ILMN_1677636	COMP	cartilage oligomeric matrix protein (COMP), mRNA.	NM_000095.2	5.6	6.38	0.78	5.77
ILMN_1667994	AMD1	adenosylmethionine decarboxylase 1 (AMD1), transcript variant 1, mRNA.	NM_001634.4	8.58	9.6	1.02	5.76
ILMN_2264205	ZBTB8	zinc finger and BTB domain containing 8 (ZBTB8), mRNA. XM_945039	NM_001040441.1	8.14	8.99	0.85	5.75
ILMN_1688480	CCND1	cyclin D1 (CCND1), mRNA.	NM_053056.2	13.36	13.93	0.57	5.74
ILMN_1788239	AMDHD1	amidohydrolase domain containing 1 (AMDHD1), mRNA.	NM_152435.1	7.25	6.45	-0.8	5.73
ILMN_2312194	CYB5A	cytochrome b5 type A (microsomal) (CYB5A), transcript variant 2, mRNA.	NM_001914.2	11	10.22	-0.79	5.73
ILMN_1715680	NEIL2	nei like 2 (E. coli) (NEIL2), mRNA.	NM_145043.1	7.24	6.41	-0.84	5.73
ILMN_1746343	LOC643985	PREDICTED: hypothetical protein LOC643985 (LOC643985), mRNA.	XM_927235.1	7.52	6.71	-0.81	5.73
ILMN_1909770		cDNA: FLJ21199 fis, clone COL00235		7.4	8.3	0.9	5.73
ILMN_1688178	CGI-96	CGI-96 protein (CGI-96), mRNA.	NM_015703.3	9.01	9.72	0.71	5.73
ILMN_1782247	GCN5L2	GCN5 general control of amino-acid synthesis 5-like 2 (yeast) (GCN5L2), mRNA.	NM_021078.2	11.22	10.64	-0.58	5.72
ILMN_1722834	RG512	regulator of G-protein signaling 12 (RG512), transcript variant 2, mRNA.	NM_002926.3	10.05	10.66	0.61	5.72
ILMN_1902929		cDNA clone IMAGE:5268658		7.82	7.13	-0.69	5.71
ILMN_1660199	ACAA2	acetyl-Coenzyme A acyltransferase 2 (mitochondrial 3-oxoacyl-Coenzyme A thiolase) (ACAA2), nuclear gene encoding mitochondrial protein, mRNA.	NM_006111.1	6.35	7.19	0.84	5.7
ILMN_1777446	LOC647987	PREDICTED: similar to Ribosome biogenesis protein BMS1 homolog (LOC647987), mRNA.	XM_937044.1	6.4	7.24	0.84	5.69
ILMN_2049184	DNASE1L3	deoxyribonuclease I-like 3 (DNASE1L3), mRNA.	NM_004944.2	6.72	5.91	-0.81	5.68

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1783610	HELLS	helicase, lymphoid-specific (HELLS), mRNA.	NM_018063.3	7.24	6.25	-0.99	5.68
ILMN_1712950	PFN1	profilin 1 (PFN1), mRNA.	NM_005022.2	11.96	12.63	0.67	5.68
ILMN_2124471	SLC36A1	solute carrier family 36 (proton/amino acid symporter), member 1 (SLC36A1), mRNA.	NM_078483.2	7.79	8.7	0.91	5.66
ILMN_1784678	PBX1	pre-B-cell leukemia homeobox 1 (PBX1), mRNA.	NM_002585.1	8.69	8.03	-0.65	5.65
ILMN_1756992	MUC1	mucin 1, cell surface associated (MUC1), transcript variant 6, mRNA.	NM_001044391.1	9.87	9.25	-0.61	5.64
ILMN_1719286	CTSA	cathepsin A (CTSA), mRNA.	NM_000308.2	10.6	9.99	-0.61	5.64
ILMN_1738558	RG520	regulator of G-protein signaling 20 (RG520), transcript variant 1, mRNA.	NM_170587.1	9.99	10.57	0.58	5.64
ILMN_1657153	ACTR3	ARP3 actin-related protein 3 homolog (yeast) (ACTR3), mRNA.	NM_005721.3	10.16	10.83	0.67	5.64
ILMN_1664283	C9orf75	chromosome 9 open reading frame 75 (C9orf75), mRNA.	NM_173691.2	8.27	7.5	-0.77	5.63
ILMN_1691892	TAGLN2	tagalin 2 (TAGLN2), mRNA.	NM_003564.1	9.06	9.77	0.72	5.63
ILMN_1776602	RNASE4	ribonuclease, RNase A family, 4 (RNASE4), transcript variant 3, mRNA.	NM_194431.1	8.42	7.74	-0.68	5.62
ILMN_1778709	PICALM	phosphatidylinositol binding clathrin assembly protein (PICALM), transcript variant 1, mRNA.	NM_007166.2	6.52	7.39	0.86	5.62
ILMN_2387471	FLJ22184	hypothetical protein FLJ22184 (FLJ22184), mRNA.	NM_001080403.1	7.4	6.53	-0.87	5.61
ILMN_2133100	LPIN2	lipin 2 (LPIN2), mRNA.	NM_014646.2	7.59	8.38	0.79	5.59
ILMN_1776631	KIAA1862	KIAA1862 protein (KIAA1862), mRNA.	NM_032534.1	6.8	7.64	0.85	5.58
ILMN_1723212	SFRS3	splicing factor, arginine/serine-rich 3 (SFRS3), mRNA.	NM_003017.3	8.66	9.37	0.71	5.58
ILMN_1768637	TNNI3	troponin I type 3 (cardiac) (TNNI3), mRNA.	NM_000363.3	7.23	6.43	-0.8	5.57
ILMN_1698484	RHOV	ras homolog gene family, member V (RHOV), mRNA.	NM_133639.2	6.59	5.81	-0.79	5.57
ILMN_1904596		xd95a11.x1 Soares_NFL_T_GBC_S1 cDNA clone IMAGE:2605340 3, mRNA sequence		5.76	6.34	0.58	5.57
ILMN_1783998	STARD5	StAR-related lipid transfer (START) domain containing 5 (STARD5), mRNA.	NM_181900.2	7.91	6.91	-1	5.56
ILMN_1687275	JUB	jub, ajuba homolog (Xenopus laevis) (JUB), transcript variant 1, mRNA.	NM_032876.4	8.13	9.07	0.93	5.56
ILMN_2195236	PGRMC2	progesterone receptor membrane component 2 (PGRMC2), mRNA.	NM_006320.1	12.56	13.18	0.61	5.56
ILMN_1698100	ANXA2P1	annexin A2 pseudogene 1 (ANXA2P1) on chromosome 4.	NR_001562.1	12.12	13.16	1.04	5.56
ILMN_2375002	MAP4K4	mitogen-activated protein kinase kinase kinase kinase 4 (MAP4K4), transcript variant 3, mRNA.	NM_145687.2	7.55	8.22	0.67	5.56
ILMN_1732923	SIPA1L2	signal-induced proliferation-associated 1 like 2 (SIPA1L2), mRNA.	NM_020808.3	8.01	7.4	-0.61	5.55
ILMN_1699644	39875	PREDICTED: membrane-associated ring finger (C3HC4) 3 (MARCH3), mRNA.	XM_001127871.1	8.18	8.91	0.73	5.55
ILMN_1749044	PVRL4	poliovirus receptor-related 4 (PVRL4), mRNA.	NM_030916.1	6.92	6.04	-0.88	5.54
ILMN_1676036	LOC649679	PREDICTED: similar to Tubulin beta-4a chain, transcript variant 2 (LOC649679), mRNA.	XM_945045.1	8.26	9.04	0.77	5.54
ILMN_1733831	PGDB5	piggYbac transposable element derived 5 (PGDB5), mRNA.	NM_024554.2	5.83	6.68	0.85	5.53
ILMN_1778587	PPP2R2D	protein phosphatase 2, regulatory subunit B, delta isoform (PPP2R2D), transcript variant 2, mRNA.	NM_001003656.1	9.78	10.3	0.51	5.53
ILMN_1777519	ITGB7	integrin, beta 7 (ITGB7), mRNA.	NM_000889.1	7.86	7.16	-0.7	5.51
ILMN_2043809	PFKM	phosphofructokinase, muscle (PFKM), mRNA.	NM_000289.3	9.25	8.63	-0.62	5.51
ILMN_1747968	RBM33	RNA binding motif protein 33 (RBM33), transcript variant 1, mRNA.	NM_001008408.3	10.3	9.74	-0.56	5.51
ILMN_1810431	LOC642299	PREDICTED: hypothetical protein LOC642299 (LOC642299), mRNA.	XM_930677.1	9.63	8.54	-1.09	5.51
ILMN_1815745	SOX4	SRY (sex determining region Y)-box 4 (SOX4), mRNA.	NM_003107.2	8.38	9.3	0.91	5.5
ILMN_1740685	LOC652541	PREDICTED: hypothetical protein LOC652541 (LOC652541), mRNA.	XM_942032.1	8.23	7.61	-0.62	5.49
ILMN_1737255	C22orf36	chromosome 22 open reading frame 36 (C22orf36), mRNA.	NM_207644.2	8.55	9.23	0.68	5.48
ILMN_2303037	SLC43A3	solute carrier family 43, member 3 (SLC43A3), mRNA.	NM_017611.2	7.34	6.52	-0.82	5.47
ILMN_1732296	ID3	inhibitor of DNA binding 3, dominant negative helix-loop-helix protein (ID3), mRNA.	NM_002167.2	12.31	11.65	-0.66	5.47
ILMN_1653466	HES4	hairy and enhancer of split 4 (Drosophila) (HES4), mRNA.	NM_021170.2	11.77	11.17	-0.59	5.46
ILMN_1707286	FLJ22662	hypothetical protein FLJ22662 (FLJ22662), mRNA.	NM_024829.4	8.32	7.36	-0.95	5.45
ILMN_1728645	LOC649095	PREDICTED: hypothetical protein LOC649095 (LOC649095), mRNA.	XM_001131851.1	7.58	6.9	-0.69	5.45
ILMN_1814589	LOC728037	PREDICTED: similar to Kinesin-like protein KIF22 (Kinesin-like DNA-binding protein) (Kinesin-like protein 4) (LOC728037), mRNA.	XR_015190.1	7.85	7.2	-0.66	5.45
ILMN_1688041	TMEM53	transmembrane protein 53 (TMEM53), mRNA.	NM_024587.2	7.28	6.59	-0.7	5.45
ILMN_1674740	LOC651876	PREDICTED: hypothetical protein LOC651876 (LOC651876), mRNA.	XM_944986.1	8	8.79	0.79	5.45
ILMN_1754795	FAT	FAT tumor suppressor homolog 1 (Drosophila) (FAT), mRNA.	NM_005245.3	10.58	11.25	0.67	5.45
ILMN_1908274		xn24e12.x1 NCI_CGAP_Kid11 cDNA clone IMAGE:2694670 3, mRNA sequence		7.68	6.95	-0.73	5.44
ILMN_2215824	ANKRD20A1	ankyrin repeat domain 20 family, member A1 (ANKRD20A1), mRNA.	NM_032250.1	8.95	8.16	-0.8	5.44
ILMN_1695852	C5orf38	chromosome 5 open reading frame 38 (C5orf38), mRNA.	NM_178569.2	6.79	6.12	-0.67	5.44
ILMN_1743207	LOC391692	PREDICTED: similar to tubulin, beta 8 (LOC391692), mRNA.	XM_373031.3	6.95	7.65	0.71	5.44
ILMN_2214355	RAB30	RAB30, member RAS oncogene family (RAB30), mRNA.	NM_014488.3	6.88	7.73	0.85	5.43
ILMN_1773935	TMEM165	transmembrane protein 165 (TMEM165), mRNA.	NM_018475.2	7.68	8.46	0.77	5.42
ILMN_1669390	PPP1R13L	protein phosphatase 1, regulatory (inhibitor) subunit 13 like (PPP1R13L), mRNA.	NM_006663.2	9.57	10.38	0.81	5.42
ILMN_2397602	ERBB3	v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian) (ERBB3), transcript variant s, mRNA.	NM_001005915.1	6.78	6.05	-0.74	5.41
ILMN_1756501	ST6GAL1	ST6 beta-galactosamide alpha-2,6-sialyltransferase 1 (ST6GAL1), transcript variant 2, mRNA.	NM_003032.2	9.14	8.47	-0.68	5.41
ILMN_1699623	FAM81A	family with sequence similarity 81, member A (FAM81A), mRNA.	NM_152450.2	6.58	5.82	-0.76	5.4
ILMN_2227968	NTHL1	nth endonuclease II-like 1 (E. coli) (NTHL1), mRNA.	NM_002528.4	8.93	8.06	-0.87	5.4
ILMN_1789171	EEF2K	eukaryotic elongation factor-2 kinase (EEF2K), mRNA.	NM_013302.3	10.47	9.87	-0.6	5.39
ILMN_1683441	NCAPD3	non-SMC condensin II complex, subunit D3 (NCAPD3), mRNA.	NM_015261.2	8.07	7.25	-0.82	5.37
ILMN_1787691	CITED4	Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 4 (CITED4), mRNA.	NM_133467.2	10.12	10.74	0.61	5.36
ILMN_2298818	RPS29	ribosomal protein S29 (RPS29), transcript variant 2, mRNA.	NM_001030001.1	10.09	9.39	-0.7	5.34
ILMN_1806502	ZNF165	zinc finger protein 165 (ZNF165), mRNA.	NM_003447.2	8.22	7.61	-0.61	5.34
ILMN_1880215		UI-H-B1-acd-c-07-0-UI.s1 NCI_CGAP_Sub3 cDNA clone IMAGE:2713741 3, mRNA sequence		8.63	7.6	-1.03	5.34
ILMN_1726839	DCUN1D5	DCN1, defective in cullin neddylation 1, domain containing 5 (S. cerevisiae) (DCUN1D5), mRNA.	NM_032299.2	10.88	11.39	0.51	5.34
ILMN_1673773	GALNTL4	UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylglucosaminyltransferase-like 4 (GALNTL4), mRNA.	NM_198516.1	9.71	10.34	0.63	5.34
ILMN_1814305	SAMD9	sterile alpha motif domain containing 9 (SAMD9), mRNA.	NM_017654.2	11.71	11.07	-0.64	5.33
ILMN_1775170	MT1X	metallothionein 1X (MT1X), mRNA.	NM_005952.2	12.61	12	-0.62	5.32
ILMN_1679464	BNC1	basonuclin 1 (BNC1), mRNA.	NM_001717.2	7.63	8.41	0.78	5.32
ILMN_1657554	TSPYL2	TSPY-like 2 (TSPYL2), mRNA.	NM_022117.1	8.23	7.46	-0.77	5.31
ILMN_1655642	FANCI	Fanconi anemia, complementation group I (FANCI), transcript variant 2, mRNA.	NM_018193.2	9.14	8.15	-0.99	5.3
ILMN_2329744	PMS2	PMS2 postmeiotic segregation increased 2 (S. cerevisiae) (PMS2), transcript variant 1, mRNA.	NM_000535.4	7.44	6.68	-0.77	5.3
ILMN_2090004	AQP10	aquaporin 10 (AQP10), mRNA.	NM_080429.2	6.16	6.87	0.72	5.3
ILMN_1744268	PLEC1	plectin 1, intermediate filament binding protein 500kDa (PLEC1), transcript variant 1, mRNA.	NM_000445.2	8.21	9.01	0.79	5.3
ILMN_2384807	LRRCC1	leucine rich repeat and coiled-coil domain containing 1 (LRRCC1), transcript variant 1, mRNA.	NM_033402.3	7.72	6.81	-0.91	5.29
ILMN_1706498	DSE	dermatan sulfate epimerase (DSE), transcript variant 1, mRNA.	NM_013352.2	11.49	12.07	0.57	5.29
ILMN_1778360	PYGB	phosphorylase, glycogen; brain (PYGB), mRNA.	NM_002862.3	10.32	10.91	0.59	5.29
ILMN_1708110	TMEM144	transmembrane protein 144 (TMEM144), mRNA.	NM_018342.3	7.01	6.19	-0.81	5.28
ILMN_1696432	IDH1	isocitrate dehydrogenase 1 (NADP+), soluble (IDH1), mRNA.	NM_005896.2	10.73	9.84	-0.89	5.27
ILMN_2383349	STEAP3	STEAP family member 3 (STEAP3), transcript variant 2, mRNA.	NM_018234.2	11.07	10.52	-0.55	5.26
ILMN_1746618	PAQR7	progesterin and adipoQ receptor family member VII (PAQR7), mRNA.	NM_178422.4	10.18	9.34	-0.84	5.26
ILMN_1725338	CLDN23	claudin 23 (CLDN23), mRNA.	NM_194284.2	7.88	8.55	0.67	5.26
ILMN_1655733	RFC2	replication factor C (activator 1) 2, 40kDa (RFC2), transcript variant 1, mRNA.	NM_181471.1	8.43	7.66	-0.76	5.25
ILMN_2347349	CCNB1IP1	cyclin B1 interacting protein 1 (CCNB1IP1), transcript variant 3, mRNA.	NM_182851.1	11.25	10.64	-0.61	5.25
ILMN_1661197	CLCF1	cardiotrophin-like cytokine factor 1 (CLCF1), mRNA.	NM_013246.2	7.89	8.6	0.72	5.25
ILMN_1751656	KLF11	PREDICTED: Kruppel-like factor 11 (KLF11), mRNA.	XM_001129527.1	7.1	7.94	0.84	5.25
ILMN_1801118	C16orf33	chromosome 16 open reading frame 33 (C16orf33), mRNA.	NM_024571.2	10.08	9.51	-0.57	5.24
ILMN_1658027	RAD54L	RAD54-like (S. cerevisiae) (RAD54L), mRNA.	NM_003579.2	7.12	6.36	-0.76	5.24
ILMN_2264681	LETMD1	LETM1 domain containing 1 (LETMD1), transcript variant 1, mRNA.	NM_015416.3	8.59	7.75	-0.83	5.23
ILMN_1732873	IPPK	inositol 1,3,4,5,6-pentakisphosphate 2-kinase (IPPK), mRNA.	NM_022755.4	7.52	8.21	0.69	5.22
ILMN_1678087	MAP3K4	mitogen-activated protein kinase kinase kinase 4 (MAP3K4), transcript variant 1, mRNA.	NM_005922.2	10.69	11.27	0.58	5.22
ILMN_1803192	WDR76	WD repeat domain 76 (WDR76), mRNA.	NM_024908.2	6.64	5.88	-0.76	5.21
ILMN_2163723	KRT7	keratin 7 (KRT7), mRNA.	NM_005556.3	11.42	12.04	0.62	5.21
ILMN_1705231	SILCO2A1	solute carrier organic anion transporter family, member 2A1 (SILCO2A1), mRNA.	NM_005630.1	7.14	7.83	0.69	5.19
ILMN_1791232	SPRED2	sprouty-related, EVH1 domain containing 2 (SPRED2), mRNA.	NM_181784.1	7.56	8.28	0.71	5.19
ILMN_1711368	NIBP	NIK and IKK(beta) binding protein (NIBP), mRNA.	NM_031466.4	7.2	6.59	-0.6	5.18
ILMN_1686152	GGA2	golgi associated, gamma adaptin ear containing, ARF binding protein 2 (GGA2), mRNA.	NM_015044.3	9.85	9.31	-0.54	5.18
ILMN_1651347	SERTAD2	SERTA domain containing 2 (SERTAD2), mRNA.	NM_014755.1	11.28	10.76	-0.51	5.17
ILMN_1761000	ASAH3L	N-acylsphingosine amidohydrolase 3-like (ASAH3L), mRNA.	NM_001010887.2	6.84	6.07	-0.77	5.17
ILMN_2353161	MSLN	mesothelin (MSLN), transcript variant 2, mRNA.	NM_013404.3	7.38	6.74	-0.64	5.17
ILMN_1911605		mRNA; cDNA DKFZp686i05206 (from clone DKFZp686i05206)		8.97	9.64	0.67	5.17
ILMN_1671791	PCK2	phosphoenolpyruvate carboxykinase 2 (mitochondrial) (PCK2), nuclear gene encoding mitochondrial protein, transcript variant	NM_004563.2	10.25	10.93	0.68	5.17

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1757440	FAM69B	PREDICTED: family with sequence similarity 69, member B (FAM69B), mRNA.	XM_001130258.1	6.88	6.24	-0.64	5.16
ILMN_1807283	NDST1	N-deacetylase/N-sulfotransferase (heparan glucosaminyl) 1 (NDST1), mRNA.	NM_001543.3	8.35	9.09	0.75	5.16
ILMN_1670970	PPP3CA	protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform (PPP3CA), mRNA.	NM_000944.3	7.31	8.17	0.86	5.15
ILMN_1807114	LOC255620	PREDICTED: similar to unc-93 homolog B1, transcript variant 1 (LOC255620), mRNA.	XM_173132.4	6.69	6.01	-0.68	5.13
ILMN_1736628	ORAI3	ORAI calcium release-activated calcium modulator 3 (ORAI3), mRNA.	NM_152288.1	7.34	6.72	-0.61	5.13
ILMN_1744980	ZCCHC7	zinc finger, CCHC domain containing 7 (ZCCHC7), mRNA.	NM_032226.2	8.85	8.17	-0.68	5.13
ILMN_1797604	CAP1	CAP, adenylate cyclase-associated protein 1 (yeast) (CAP1), mRNA.	NM_006367.2	12.33	13.06	0.73	5.13
ILMN_1690894	TRA1P2	PREDICTED: tumor rejection antigen (gp96) 1 pseudogene 2 (TRA1P2), misc RNA.	XR_000203.3	7.89	8.69	0.8	5.13
ILMN_1716766	CEBPg	CCAAT/enhancer binding protein (C/EBP), gamma (CEBPg), mRNA.	NM_001806.2	8.63	9.31	0.68	5.12
ILMN_2111932	SERINC2	serine incorporator 2 (SERINC2), mRNA.	NM_178865.3	9.75	10.37	0.62	5.12
ILMN_1710170	PPAP2C	phosphatidic acid phosphatase type 2C (PPAP2C), transcript variant 2, mRNA.	NM_177526.1	8.04	7.28	-0.76	5.11
ILMN_1655796	39875	PREDICTED: membrane-associated ring finger (C3HC4) 3 (MARCH3), mRNA.	NM_001127871.1	7.98	8.73	0.75	5.09
ILMN_1731224	PARP9	poly (ADP-ribose) polymerase family, member 9 (PARP9), mRNA.	NM_031458.1	9.49	8.59	-0.89	5.08
ILMN_2396875	IGFBP3	insulin-like growth factor binding protein 3 (IGFBP3), transcript variant 1, mRNA.	NM_001013398.1	10.95	10.26	-0.68	5.07
ILMN_1802292	WDFY2	WD repeat and FYVE domain containing 2 (WDFY2), mRNA.	NM_052950.2	8.75	9.3	0.55	5.06
ILMN_1728478	CXCL16	chemokine (C-X-C motif) ligand 16 (CXCL16), mRNA.	NM_022059.1	11.31	10.75	-0.56	5.05
ILMN_2412860	MCM4	minichromosome maintenance complex component 4 (MCM4), transcript variant 2, mRNA.	NM_182746.1	9.51	8.7	-0.81	5.05
ILMN_1703593	BAIAP2L1	BAI1-associated protein 2-like 1 (BAIAP2L1), mRNA.	NM_018842.3	10.67	11.19	0.52	5.05
ILMN_1677765	LRP8	low density lipoprotein receptor-related protein 8, apolipoprotein e receptor (LRP8), transcript variant 3, mRNA.	NM_017522.3	7.85	8.67	0.83	5.05
ILMN_1757350	CTNNB1	catenin (cadherin-associated protein), beta 1, 88kDa (CTNBB1), mRNA.	NM_001098209.1	8.46	9.1	0.65	5.05
ILMN_2179778	PHLDB2	pleckstrin homology-like domain, family B, member 2 (PHLDB2), mRNA.	NM_145753.1	8.75	9.63	0.88	5.04
ILMN_1757736	IRX5	iroquois homeobox 5 (IRX5), mRNA.	NM_005853.5	9.56	8.9	-0.65	5.03
ILMN_1748707	CRELD2	cysteine-rich with EGF-like domains 2 (CRELD2), mRNA.	NM_024324.2	10.11	10.79	0.68	5.03
ILMN_1692664	PRRS	proline rich 5 (renal) (PRRS), transcript variant 5, mRNA.	NM_001017529.1	8.79	8.21	-0.58	5.02
ILMN_1698772	KRT6B	keratin 6B (KRT6B), mRNA.	NM_005555.3	10.53	11.23	0.7	5.02
ILMN_1720322	PTS	6-pyruvoyltetrahydropterin synthase (PTS), mRNA.	NM_000317.1	9.84	10.45	0.61	5.02
ILMN_2183856	TSPAN6	tetraspanin 6 (TSPAN6), mRNA.	NM_003270.2	7.84	7.27	-0.57	5.01
ILMN_2363130	SULT1A4	sulfotransferase family, cytosolic, 1A, phenol-preferring, member 4 (SULT1A4), transcript variant 3, mRNA.	NM_001017391.1	9.42	8.68	-0.74	5.01
ILMN_1669605	LOC646609	PREDICTED: similar to Chloride intracellular channel protein 4 (Intracellular chloride ion channel protein p64H1) (LOC646609), mRNA.	NM_929546.1	6.08	6.8	0.72	5.01
ILMN_1780825	RRAS	related RAS viral (f-ras) oncogene homolog (RRAS), mRNA.	NM_006270.3	10.55	11.08	0.53	5.01
ILMN_1796210	PPRC1	peroxisome proliferator-activated receptor gamma, coactivator-related 1 (PPRC1), mRNA.	NM_015062.3	9.21	9.84	0.63	5
ILMN_1813374	C19orf28	chromosome 19 open reading frame 28 (C19orf28), transcript variant 3, mRNA.	NM_174983.3	6.65	7.4	0.75	5
ILMN_1746454	LOC647993	PREDICTED: hypothetical protein LOC647993 (LOC647993), mRNA.	XM_937048.1	5.84	6.63	0.79	5
ILMN_1777060	CTH	cystathionase (cystathionine gamma-lyase) (CTH), transcript variant 1, mRNA.	NM_001902.4	6.71	6.17	-0.54	4.99
ILMN_2387078	MPZL2	myelin protein zero-like 2 (MPZL2), transcript variant 2, mRNA.	NM_144765.1	9.84	9	-0.84	4.99
ILMN_1717262	PROCR	protein C receptor, endothelial (EPCR) (PROCR), mRNA.	NM_006404.3	7.87	8.63	0.76	4.99
ILMN_2110167	POLR1E	polymerase (RNA) I polypeptide E, 53kDa (POLR1E), mRNA.	NM_002490.1	9.61	8.89	-0.72	4.97
ILMN_1746836	PTAFR	platelet-activating factor receptor (PTAFR), mRNA.	NM_000952.3	7.2	6.29	-0.91	4.97
ILMN_2363634	ADHFE1	alcohol dehydrogenase, iron containing, 1 (ADHFE1), transcript variant 1, mRNA.	NM_001077593.1	7.76	6.92	-0.83	4.97
ILMN_1821176		601441142F1 NIH_MGC_72 cDNA clone IMAGE:3915971 5, mRNA sequence		6.53	5.9	-0.63	4.97
ILMN_1714599	CAMLG	calcium modulating ligand (CAMLG), mRNA.	NM_001745.2	12.79	12.28	-0.5	4.97
ILMN_1662243	ING1	inhibitor of growth family, member 1 (ING1), transcript variant 1, mRNA.	NM_198219.1	7.72	7.06	-0.66	4.97
ILMN_1767992	SLC12A6	solute carrier family 12 (potassium/chloride transporters), member 6 (SLC12A6), transcript variant 5, mRNA.	NM_001042496.1	7.2	6.59	-0.62	4.97
ILMN_1708798	EAF2	ELL associated factor 2 (EAF2), mRNA.	NM_018456.4	8.1	8.88	0.78	4.97
ILMN_1784356	TTL11	tubulin tyrosine ligase-like family, member 11 (TTL11), mRNA.	NM_194252.1	6.91	7.57	0.66	4.97
ILMN_1666553	SLC25A19	solute carrier family 25 (mitochondrial thiamine pyrophosphate carrier), member 19 (SLC25A19), nuclear gene encoding mitochondrial protein	NM_021734.3	8.53	7.39	-1.14	4.94
ILMN_1798582	GRB7	growth factor receptor-bound protein 7 (GRB7), transcript variant 1, mRNA.	NM_005310.2	6.78	5.93	-0.86	4.94
ILMN_2106449	PLEKHF2	pleckstrin homology domain containing, family F (with FYVE domain) member 2 (PLEKHF2), mRNA.	NM_024613.2	8.94	8.25	-0.69	4.94
ILMN_1806328	PDIK1L	POLIM1 interacting kinase 1 like (PDIK1L), mRNA.	NM_152835.2	7.17	6.36	-0.81	4.94
ILMN_1774287	CFB	complement factor B (CFB), mRNA.	NM_001710.4	6.82	6.18	-0.64	4.92
ILMN_2085722	ING2	inhibitor of growth family, member 2 (ING2), mRNA.	NM_001564.2	8.78	8.2	-0.59	4.92
ILMN_2202637	CRY1	cryptochrome 1 (photolyase-like) (CRY1), mRNA.	NM_004075.2	9.34	10.03	0.69	4.92
ILMN_2374425	CCNE1	cyclin E1 (CCNE1), transcript variant 1, mRNA.	NM_001238.1	7.23	6.4	-0.84	4.91
ILMN_2183938	LEMD3	LEM domain containing 3 (LEMD3), mRNA.	NM_014319.3	10.18	10.76	0.58	4.9
ILMN_1697817	PANX1	pannexin 1 (PANX1), mRNA.	NM_015368.3	7.66	8.41	0.75	4.9
ILMN_1693410	BRI3BP	PREDICTED: BRI3 binding protein (BRI3BP), mRNA.	XM_941876.1	9.67	8.96	-0.71	4.89
ILMN_1671731	AVP11	arginine vasopressin-induced 1 (AVP11), mRNA.	NM_021732.1	11.82	11.31	-0.51	4.89
ILMN_1699809	CAPNS2	calpain, small subunit 2 (CAPNS2), mRNA.	NM_032330.1	10.98	10.21	-0.78	4.89
ILMN_1679051	PTPRR	protein tyrosine phosphatase, receptor type, R (PTPRR), transcript variant 1, mRNA.	NM_002849.2	7	7.97	0.97	4.88
ILMN_1715175	MET	met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA.	NM_000245.2	6.5	7.37	0.87	4.87
ILMN_2062468	IGFBP7	insulin-like growth factor binding protein 7 (IGFBP7), mRNA.	NM_001553.1	9.85	10.37	0.52	4.87
ILMN_1769734	NTSC3	5'-nucleotidase, cytosolic III (NTSC3), transcript variant 1, mRNA.	NM_001002010.1	10.17	9.58	-0.59	4.84
ILMN_2357438	AURKA	aurora kinase A (AURKA), transcript variant 3, mRNA.	NM_198434.1	10.27	9.75	-0.53	4.83
ILMN_1812559	SLC7A6	solute carrier family 7 (cationic amino acid transporter, y+ system), member 6 (SLC7A6), transcript variant 2, mRNA.	NM_001076785.1	8.39	9.1	0.71	4.83
ILMN_1750100	TUBB4Q	tubulin, beta polypeptide 4, member Q (TUBB4Q), mRNA.	NM_020040.3	8.64	9.41	0.76	4.82
ILMN_2090105	TAGLN2	transgelin 2 (TAGLN2), mRNA.	NM_003564.1	11.38	12.06	0.68	4.82
ILMN_1773006	FABP4	fatty acid binding protein 4, adipocyte (FABP4), mRNA.	NM_001442.1	6.15	7.15	1	4.8
ILMN_1709307	GPSM1	PREDICTED: G-protein signalling modulator 1 (AGS3-like, C. elegans) (GPSM1), mRNA.	XM_939186.2	8.83	9.37	0.54	4.8
ILMN_1739641	MTMR3	myotubularin related protein 3 (MTMR3), transcript variant 3, mRNA.	NM_021090.3	9.83	10.37	0.54	4.8
ILMN_2200917	SLC4A7	solute carrier family 4, sodium bicarbonate cotransporter, member 7 (SLC4A7), mRNA.	NM_003615.2	8.21	8.85	0.64	4.8
ILMN_2302358	ABCC5	ATP-binding cassette, sub-family C (CFTR/MRP), member 5 (ABCC5), transcript variant 2, mRNA.	NM_001023587.1	6.8	5.99	-0.81	4.78
ILMN_1689070	COQ7	coenzyme Q7 homolog, ubiquinone (yeast) (COQ7), mRNA.	NM_016138.3	7.42	6.81	-0.61	4.78
ILMN_1800220	KCTD3	potassium channel tetramerisation domain containing 3 (KCTD3), mRNA.	NM_016121.3	9.83	8.82	-1.01	4.78
ILMN_2379718	RAB24	RAB24, member RAS oncogene family (RAB24), transcript variant 1, mRNA.	NM_001031677.2	9.06	8.29	-0.77	4.77
ILMN_1757287	MAPK6	mitogen-activated protein kinase 6 (MAPK6), mRNA.	NM_002748.2	10.81	11.52	0.71	4.77
ILMN_1757237	DDEF2	development and differentiation enhancing factor 2 (DDEF2), mRNA.	NM_003887.1	8.69	9.47	0.78	4.77
ILMN_1736005	NCAPH2	non-SMC condensin II complex, subunit H2 (NCAPH2), transcript variant 2, mRNA.	NM_152299.2	6.79	6.11	-0.68	4.76
ILMN_2356578	TH	tyrosine hydroxylase (TH), transcript variant 2, mRNA.	NM_000360.3	6.5	5.86	-0.64	4.76
ILMN_1682572	KIAA0528	KIAA0528 (KIAA0528), mRNA.	NM_014802.1	10.17	9.47	-0.7	4.74
ILMN_1859207		AV727190 HTC cDNA clone HTCAQG06 5, mRNA sequence		8.51	7.84	-0.67	4.72
ILMN_2352097	GPR56	G protein-coupled receptor 56 (GPR56), transcript variant 2, mRNA.	NM_201524.1	12.88	13.43	0.55	4.72
ILMN_1737005	C19orf61	chromosome 19 open reading frame 61 (C19orf61), mRNA.	NM_019108.2	7.24	7.95	0.7	4.7
ILMN_2398403	TCEAL1	transcription elongation factor A (SII)-like 1 (TCEAL1), transcript variant 2, mRNA.	NM_001006639.1	9.84	10.53	0.69	4.69
ILMN_1806030	PPL	periaplin (PPL), mRNA.	NM_002705.4	9.87	9.26	-0.61	4.68
ILMN_1737561	LOC88523	CG016 (LOC88523), mRNA.	NM_033111.2	10.53	9.91	-0.62	4.68
ILMN_1758907	UGT1A6	UDP glucuronosyltransferase 1 family, polypeptide A6 (UGT1A6), transcript variant 1, mRNA.	NM_001072.3	7.95	8.55	0.6	4.68
ILMN_1669617	GRB10	growth factor receptor-bound protein 10 (GRB10), transcript variant 4, mRNA.	NM_001001555.1	6.44	7.12	0.68	4.68
ILMN_1741755	TRIM29	tripartite motif-containing 29 (TRIM29), mRNA.	NM_012101.3	11.2	10.67	-0.53	4.67
ILMN_1733157	THSD1	thrombospondin, type I, domain containing 1 (THSD1), transcript variant 1, mRNA.	NM_018676.2	5.91	6.58	0.67	4.67
ILMN_1743714	CARD10	caspase recruitment domain family, member 10 (CARD10), mRNA.	NM_014550.3	10.54	11.07	0.52	4.67
ILMN_1772486	ELF2	E74-like factor 2 (ets domain transcription factor) (ELF2), transcript variant 2, mRNA.	NM_006874.2	8.83	8.11	-0.71	4.66
ILMN_1736327	CDC42EP3	CDC42 effector protein (Rho GTPase binding) 3 (CDC42EP3), mRNA.	NM_006449.3	6.54	7.36	0.82	4.66
ILMN_2171295	PFTK1	PPTFAIRE protein kinase 1 (PFTK1), mRNA.	NM_012395.2	6.32	7.36	1.04	4.66
ILMN_2370976	FER1L3	fer-1-like 3, myoferlin (C. elegans) (FER1L3), transcript variant 1, mRNA.	NM_013451.2	11.35	10.69	-0.66	4.64
ILMN_1710220	LOC729985	PREDICTED: similar to CDC42-binding protein kinase beta (LOC729985), mRNA.	XM_001131964.1	8.28	7.61	-0.67	4.64
ILMN_1729208	NGFRAP1	nerve growth factor receptor (TNFRSF16) associated protein 1 (NGFRAP1), transcript variant 1, mRNA.	NM_206917.1	9.21	8.52	-0.69	4.64
ILMN_1658483	IL1A	interleukin 1, alpha (IL1A), mRNA.	NM_000575.3	6.1	6.8	0.7	4.64
ILMN_1655684	SARS2	seryl-tRNA synthetase 2, mitochondrial (SARS2), nuclear gene encoding mitochondrial protein, mRNA.	NM_017827.2	8.88	8.17	-0.71	4.63
ILMN_1652407	ZMYND8	zinc finger, MYND-type containing 8 (ZMYND8), transcript variant 1, mRNA.	NM_183047.1	8.56	7.47	-1.09	4.63
ILMN_1708983	CASC1	cancer susceptibility candidate 1 (CASC1), transcript variant 3, mRNA.	NM_001082972.1	6.47	5.79	-0.69	4.63
ILMN_2324561	SLC7A6	solute carrier family 7 (cationic amino acid transporter, y+ system), member 6 (SLC7A6), transcript variant 2, mRNA.	NM_001076785.1	8.25	8.96	0.7	4.63

Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1805750	IFITM3	interferon induced transmembrane protein 3 (1-8U) (IFITM3), mRNA.	NM_021034.2	11.82	11.31	-0.51	4.62
ILMN_1793990	ID2	inhibitor of DNA binding 2, dominant negative helix-loop-helix protein (ID2), mRNA.	NM_002166.4	9.12	8.36	-0.76	4.62
ILMN_1810191	PLA2G4C	phospholipase A2, group IVC cytosolic, calcium-independent (PLA2G4C), mRNA.	NM_003706.1	7.37	6.73	-0.64	4.62
ILMN_1691508	PLAUR	plasminogen activator, urokinase receptor (PLAUR), transcript variant 2, mRNA.	NM_001005376.1	6.8	7.66	0.87	4.62
ILMN_1700733	KIAA1370	KIAA1370 (KIAA1370), mRNA.	NM_019600.2	9.72	8.9	-0.81	4.61
ILMN_1798181	IRF7	interferon regulatory factor 7 (IRF7), transcript variant b, mRNA.	NM_004029.2	10.19	9.54	-0.65	4.6
ILMN_1668012	SLC25A13	solute carrier family 25, member 13 (citrin) (SLC25A13), mRNA.	NM_014251.1	8.45	9.11	0.66	4.6
ILMN_1757845	SPIRE1	spire homolog 1 (Drosophila) (SPIRE1), mRNA.	NM_020148.2	8.96	9.62	0.66	4.6
ILMN_2359287	ITGA6	integrin, alpha 6 (ITGA6), transcript variant 2, mRNA.	NM_000210.2	11.02	11.65	0.63	4.58
ILMN_1714600	NAV3	neuron navigator 3 (NAV3), mRNA.	NM_014903.4	6.12	6.93	0.82	4.57
ILMN_1702637	BEX1	brain expressed, X-linked 1 (BEX1), mRNA.	NM_018476.3	8.13	7.36	-0.77	4.56
ILMN_1774604	PNKD	paroxysmal nonkinesigenic dyskinesia (PNKD), transcript variant 2, mRNA.	NM_022572.2	6.62	6.07	-0.54	4.56
ILMN_1654060	MKNK2	MAP kinase interacting serine/threonine kinase 2 (MKNK2), transcript variant 2, mRNA.	NM_199054.2	8.64	8.11	-0.52	4.56
ILMN_1802458	AGTRAP	angiotensin II receptor-associated protein (AGTRAP), transcript variant 4, mRNA.	NM_001040196.1	7.29	8.13	0.84	4.55
ILMN_1706612	WFDC2	WAP four-disulfide core domain 2 (WFDC2), transcript variant 2, mRNA.	NM_080736.1	6.48	5.79	-0.69	4.54
ILMN_2194649	TADA1L	transcriptional adaptor 1 (HFI1 homolog, yeast)-like (TADA1L), mRNA.	NM_053053.2	8.78	8.07	-0.71	4.54
ILMN_1651296	LOC143666	PREDICTED: hypothetical protein LOC143666 (LOC143666), mRNA.	XM_001127524.1	8.35	7.72	-0.64	4.52
ILMN_1701711	BRD8	bromodomain containing 8 (BRD8), transcript variant 3, mRNA.	NM_183359.1	9.44	8.81	-0.64	4.51
ILMN_2175112	KCN53	potassium voltage-gated channel, delayed-rectifier, subfamily 5, member 3 (KCN53), mRNA.	NM_002252.3	7.63	7.07	-0.56	4.5
ILMN_1731838	COX6BP1	cytochrome c oxidase subunit VIb pseudogene 1 (HCOX52) (COX6BP1) on chromosome 7.	NR_002210.1	6.72	7.29	0.57	4.48
ILMN_1660864	RHBDL1	rhombooid, veinlet-like 1 (Drosophila) (RHBDL1), mRNA.	NM_003961.1	7.51	6.76	-0.75	4.47
ILMN_1726448	MMP1	matrix metalloproteinase 1 (interstitial collagenase) (MMP1), mRNA.	NM_002421.2	8.16	9	0.84	4.47
ILMN_1805449	TAPBPL	TAP binding protein-like (TAPBPL), mRNA.	NM_018009.3	7.62	7.02	-0.6	4.46
ILMN_1786125	CCNA2	cyclin A2 (CCNA2), mRNA.	NM_001237.2	8.54	7.87	-0.67	4.46
ILMN_1659895	MSN	moesin (MSN), mRNA.	NM_002444.2	11.25	11.87	0.62	4.46
ILMN_1810782	SH3KBP1	SH3-domain kinase binding protein 1 (SH3KBP1), transcript variant 1, mRNA.	NM_031892.1	7.32	7.91	0.59	4.46
ILMN_1696419	STOM	stomatin (STOM), transcript variant 1, mRNA.	NM_004099.4	7.16	7.86	0.7	4.45
ILMN_1670130	ARID3A	AT rich interactive domain 3A (BRIGHT-like) (ARID3A), mRNA.	NM_005224.2	7.91	8.43	0.52	4.44
ILMN_1754114	FLJ20021	PREDICTED: hypothetical LOC90024 (FLJ20021), mRNA.	XM_028217.4	9.09	9.61	0.52	4.43
ILMN_1693740	LOC647834	PREDICTED: hypothetical protein LOC647834 (LOC647834), mRNA.	XM_943048.1	8.51	9.08	0.57	4.43
ILMN_1685574	TSC2D2	TSC22 domain family, member 2 (TSC2D2), mRNA.	NM_014779.2	8.81	9.54	0.73	4.43
ILMN_1669032	PPIC	peptidylprolyl isomerase C (cyclophilin C) (PPIC), mRNA.	NM_000943.4	9.51	10.06	0.55	4.43
ILMN_1796508	TOP1MT	PREDICTED: topoisomerase (DNA) 1, mitochondrial (TOP1MT), mRNA.	XM_001130368.1	8.41	7.81	-0.6	4.41
ILMN_1708131	BHLHB9	basic helix-loop-helix domain containing, class B, 9 (BHLHB9), mRNA.	NM_030639.1	7.11	6.46	-0.64	4.41
ILMN_2368188	TRPV6	transient receptor potential cation channel, subfamily V, member 6 (TRPV6), mRNA.	NM_018646.2	6.57	5.95	-0.62	4.39
ILMN_1792088	C1orf101	chromosome 1 open reading frame 101 (C1orf101), mRNA.	NM_173807.3	6.45	7.3	0.85	4.38
ILMN_1718863	KCNK1	potassium channel, subfamily K, member 1 (KCNK1), mRNA.	NM_002245.2	10.84	10.2	-0.65	4.35
ILMN_1897333	XO98521	Soares fetal liver spleen INFLS cDNA clone IMAGp998L05118, mRNA sequence		6.69	7.4	0.71	4.35
ILMN_1669928	ARHGEF16	Rho guanine exchange factor (GEF) 16 (ARHGEF16), mRNA.	NM_014448.2	7.95	7.23	-0.72	4.34
ILMN_1665832	ID1	inhibitor of DNA binding 1, dominant negative helix-loop-helix protein (ID1), transcript variant 2, mRNA.	NM_181353.1	7.98	7.15	-0.83	4.33
ILMN_1881909	AGENCOURT_10229596	NIH_MGC_141 cDNA clone IMAGE:6563923, mRNA sequence		10.07	11.16	1.09	4.31
ILMN_1801156	RLF	rearranged L-myc fusion (RLF), mRNA.	NM_012421.2	7.02	6.3	-0.73	4.3
ILMN_1882590	cDNA FLJ37595	fis, clone BRCCO2007864		9.6	10.2	0.6	4.3
ILMN_1687583	CAV1	caveolin 1, caveolae protein, 22kDa (CAV1), mRNA.	NM_001753.3	11.09	11.73	0.64	4.3
ILMN_2115633	CD320	CD320 molecule (CD320), mRNA.	NM_016579.2	7.07	6.54	-0.53	4.29
ILMN_1728230	ZNF30	zinc finger protein 30 (ZNF30), transcript variant 2, mRNA.	NM_001099437.1	7.31	6.66	-0.65	4.29
ILMN_1766346	ZNF512B	zinc finger protein 512B (ZNF512B), mRNA.	NM_020713.1	8.75	8.15	-0.59	4.29
ILMN_2374352	DBNDD1	dysbindin (dystrobrevin binding protein 1) domain containing 1 (DBNDD1), transcript variant 1, mRNA.	NM_001042610.1	9.94	9.26	-0.68	4.29
ILMN_1665964	GAB2	GRB2-associated binding protein 2 (GAB2), transcript variant 1, mRNA.	NM_080491.1	7.48	6.81	-0.67	4.28
ILMN_1781942	HMMR	hyaluronan-mediated motility receptor (RHAMM) (HMMR), transcript variant 2, mRNA.	NM_012485.1	8.52	7.8	-0.72	4.28
ILMN_2051373	NEK2	NIMA (never in mitosis gene a)-related kinase 2 (NEK2), mRNA.	NM_002497.2	9.69	9.08	-0.62	4.28
ILMN_2358457	ATF4	activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4), transcript variant 2, mRNA.	NM_182810.1	9.37	10.21	0.85	4.28
ILMN_1699737	TRAP1	TNF receptor-associated protein 1 (TRAP1), mRNA.	NM_016292.1	9.46	8.96	-0.51	4.26
ILMN_1654812	UNC93B1	unc-93 homolog B1 (C. elegans) (UNC93B1), mRNA.	NM_030930.2	8.2	7.45	-0.75	4.23
ILMN_1742332	KCTD12	potassium channel tetramerisation domain containing 12 (KCTD12), mRNA.	NM_138444.3	10.52	9.79	-0.73	4.23
ILMN_1660440	FAM108B1	family with sequence similarity 108, member B1 (FAM108B1), transcript variant 1, mRNA.	NM_016014.2	8.74	8.17	-0.57	4.23
ILMN_1660204	IGSF98	immunoglobulin superfamily, member 98 (IGSF98), mRNA.	NM_014987.1	7.12	7.8	0.68	4.23
ILMN_2364131	C20orf121	chromosome 20 open reading frame 121 (C20orf121), transcript variant 1, mRNA.	NM_024331.3	9.89	10.43	0.55	4.23
ILMN_1702633	RETSAT	retinol saturase (all-trans-retinol 13,14-reductase) (RETSAT), mRNA.	NM_017750.2	8.56	7.77	-0.78	4.22
ILMN_1729112	CHPT1	choline phosphotransferase 1 (CHPT1), mRNA.	NM_020244.2	8.18	7.66	-0.52	4.21
ILMN_1695271	RPP25	ribonuclease P/MRP 25kDa subunit (RPP25), mRNA.	NM_017793.2	6.41	5.8	-0.61	4.21
ILMN_1702231	C1orf54	chromosome 1 open reading frame 54 (C1orf54), mRNA.	NM_024579.2	7.5	6.9	-0.6	4.2
ILMN_2323774	RPAIN	RPA interacting protein (RPAIN), transcript variant 2, mRNA.	NM_032308.1	12.25	11.74	-0.51	4.2
ILMN_1661372	JUB	jub, ajuba homolog (Xenopus laevis) (JUB), transcript variant 1, mRNA.	NM_032876.4	7.28	8.03	0.75	4.2
ILMN_1782084	LOC200810	similar to beta-1,4-mannosyltransferase; beta-1,4-mannosyltransferase (LOC200810), mRNA.	NM_001015050.1	9.21	8.6	-0.61	4.19
ILMN_1669113	ATF5	activating transcription factor 5 (ATF5), mRNA.	NM_012068.3	9.29	8.72	-0.57	4.19
ILMN_1757129	TMEM88	transmembrane protein 88 (TMEM88), mRNA.	NM_203411.1	6.01	6.82	0.82	4.18
ILMN_1665884	REP15	Rab15 effector protein (REP15), mRNA.	NM_001029874.1	7.09	7.72	0.63	4.18
ILMN_1711899	ANXA2	annexin A2 (ANXA2), transcript variant 2, mRNA.	NM_001002857.1	13.14	14.05	0.91	4.18
ILMN_2267488	ITGA6	integrin, alpha 6 (ITGA6), transcript variant 2, mRNA.	NM_000210.2	10	10.88	0.88	4.17
ILMN_1658798	MEGF9	multiple EGF-like-domains 9 (MEGF9), mRNA.	NM_001080497.1	6.72	7.39	0.66	4.17
ILMN_1771870	FAM98C	family with sequence similarity 98, member C (FAM98C), mRNA.	NM_174905.2	8.26	7.66	-0.61	4.16
ILMN_1651498	GADD45G	growth arrest and DNA-damage-inducible, gamma (GADD45G), mRNA.	NM_006705.2	8.29	8.94	0.65	4.16
ILMN_1795778	P4HA2	procollagen-proline, 2-oxoglutarate 4-dioxygenase (proline 4-hydroxylase), alpha polypeptide II (P4HA2), transcript variant 2, mRNA.	NM_001017973.1	10.66	11.26	0.6	4.16
ILMN_1738938	TIMM8B	translocase of inner mitochondrial membrane 8 homolog B (yeast) (TIMM8B), nuclear gene encoding mitochondrial protein, mRNA.	NM_012459.1	7.77	8.56	0.79	4.16
ILMN_2211800	HMG1L1	high-mobility group (nonhistone chromosomal) protein 1-like 1 (HMG1L1), mRNA.	NM_001008735.1	9.88	10.59	0.71	4.16
ILMN_1659843	DNAJC3	DnaJ (Hsp40) homolog, subfamily C, member 3 (DNAJC3), mRNA.	NM_006260.2	6.35	6.97	0.62	4.13
ILMN_2070896	BMPR2	bone morphogenetic protein receptor, type II (serine/threonine kinase) (BMPR2), mRNA.	NM_001204.5	8.62	9.39	0.77	4.13
ILMN_1806463	CTAGE6	CTAGE family, member 6 (CTAGE6), mRNA.	NM_178561.4	7.22	7.88	0.65	4.13
ILMN_1708105	EZH2	enhancer of zeste homolog 2 (Drosophila) (EZH2), transcript variant 2, mRNA.	NM_152998.1	7.32	6.71	-0.6	4.12
ILMN_1779373	HIST1H2BF	histone cluster 1, H2bf (HIST1H2BF), mRNA.	NM_003522.3	6.62	6.06	-0.56	4.12
ILMN_1664398	LOC651621	PREDICTED: similar to hydroxysteroid (17-beta) dehydrogenase 7 (LOC651621), mRNA.	XM_940809.1	8.18	8.78	0.6	4.12
ILMN_1731113	ZBTB43	zinc finger and BTB domain containing 43 (ZBTB43), mRNA.	NM_014007.2	10.72	10.14	-0.59	4.11
ILMN_1669052	LRRCE	leucine rich repeat containing 8 family, member E (LRRCE), mRNA.	NM_025067.3	8.17	8.71	0.53	4.11
ILMN_1810055	ITFG3	integrin alpha FG-GAP repeat containing 3 (ITFG3), mRNA.	NM_032039.1	9.63	8.99	-0.65	4.1
ILMN_1724211	GPRC5C	G protein-coupled receptor, family C, group 5, member C (GPRC5C), transcript variant 1, mRNA.	NM_022036.2	8.22	7.58	-0.63	4.09
ILMN_1708486	CNN2	calponin 2 (CNN2), transcript variant 1, mRNA.	NM_004368.2	6.83	7.52	0.69	4.09
ILMN_1718063	LIPA	lipase A, lysosomal acid, cholesterol esterase (Wolman disease) (LIPA), mRNA.	NM_000235.2	11.9	11.34	-0.56	4.07
ILMN_1815733	EIF5	eukaryotic translation initiation factor 5 (EIF5), transcript variant 1, mRNA.	NM_001969.3	11.73	11.15	-0.58	4.07
ILMN_1781386	WIPI1	WD repeat domain, phosphoinositide interacting 1 (WIPI1), mRNA.	NM_017983.4	7.24	7.87	0.62	4.07
ILMN_1811593	NPAL1	NIPA-like domain containing 1 (NPAL1), mRNA.	NM_207330.1	8.89	9.64	0.75	4.07
ILMN_1666156	MORF4L2	mortality factor 4 like 2 (MORF4L2), mRNA.	NM_012286.1	11.78	12.49	0.71	4.06
ILMN_1788961	PPP2R2A	protein phosphatase 2 (formerly 2A), regulatory subunit B, alpha isoform (PPP2R2A), mRNA.	NM_002717.2	9.85	10.49	0.64	4.06
ILMN_1784661	TMEM2	transmembrane protein 2 (TMEM2), mRNA.	NM_013390.1	9.42	10.02	0.6	4.06
ILMN_2157075	LRCH4	leucine-rich repeats and calponin homology (CH) domain containing 4 (LRCH4), mRNA.	NM_002319.3	8.53	8	-0.53	4.05
ILMN_2240003	ABL2	v-abl Abelson murine leukemia viral oncogene homolog 2 (arg, Abelson-related gene) (ABL2), transcript variant b, mRNA.	NM_007314.1	6.2	6.9	0.7	4.04
ILMN_2186983	ANXA8L2	annexin A8-like 2 (ANXA8L2), mRNA.	NM_001630.2	12.95	13.54	0.59	4.04
ILMN_1757072	LOC642489	PREDICTED: similar to FK506-binding protein 1A (LOC642489), mRNA.	XM_925989.1	11.18	11.72	0.55	4.03
ILMN_1697220	NTSE	5'-nucleotidase, ecto (CD73) (NTSE), mRNA.	NM_002526.1	6.68	7.49	0.82	4.03
ILMN_1777591	C10orf65	chromosome 10 open reading frame 65 (C10orf65), mRNA.	NM_138413.2	8.31	7.51	-0.8	4.02
ILMN_2138801	TP73L	tumor protein p73-like (TP73L), mRNA.	NM_003722.3	11.22	12.19	0.97	4.02

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1804530	LOC653888	PREDICTED: similar to Actin-related protein 2/3 complex subunit 1B (ARP2/3 complex 41 kDa subunit) (p41-ARC) (LOC653888),	XM_936251.2	10.15	10.7	0.55	4.01
ILMN_1736015	PHF17	PHD finger protein 17 (PHF17), transcript variant S, mRNA.	NM_024900.3	7.29	6.74	-0.55	4
ILMN_1807003	ANXA11	annexin A11 (ANXA11), transcript variant c, mRNA.	NM_145869.1	8.01	7.21	-0.8	3.99
ILMN_1672094	DLX1	distal-less homeobox 1 (DLX1), transcript variant 1, mRNA.	NM_178120.4	8.07	8.7	0.63	3.99
ILMN_1743711	LOC650215	PREDICTED: similar to Exportin-T (tRNA exportin) (Exportin(tRNA)) (LOC650215), mRNA.	XR_018889.1	9.45	10.32	0.87	3.99
ILMN_1773066	CDKN2AIP	CDKN2A interacting protein (CDKN2AIP), mRNA.	NM_017632.2	8.12	7.56	-0.56	3.96
ILMN_1687824	SEPHS2	selenophosphate synthetase 2 (SEPHS2), mRNA.	NM_012248.2	8.28	8.89	0.61	3.96
ILMN_2384591	HN1	hematological and neurological expressed 1 (HN1), transcript variant 1, mRNA.	NM_016185.2	9.16	9.91	0.76	3.95
ILMN_1704369	LIMA1	LIM domain and actin binding 1 (LIMA1), mRNA.	NM_016357.3	9.93	10.68	0.75	3.95
ILMN_1710544	PCDH7	protocadherin 7 (PCDH7), transcript variant a, mRNA.	NM_002589.2	7.82	7.15	-0.66	3.94
ILMN_1865441		cDNA FLJ43972 fis, clone TEST14017961		6.36	7.15	0.79	3.94
ILMN_1769299	MTMR11	myotubularin related protein 11 (MTMR11), mRNA.	NM_181873.2	9.93	10.45	0.51	3.91
ILMN_1778625	CD44	CD44 molecule (Indian blood group) (CD44), transcript variant 1, mRNA.	NM_000610.3	8.83	9.75	0.92	3.9
ILMN_1751615	COQ10B	coenzyme Q10 homolog B (S. cerevisiae) (COQ10B), mRNA.	NM_025147.3	10.13	10.64	0.5	3.9
ILMN_2064860	LOC653499	similar to Galectin-7 (Gal-7) (HKL-14) (PI7) (p53-induced protein 1) (LOC653499), mRNA.	NM_001042507.1	12.33	12.87	0.54	3.9
ILMN_1715401	MT1G	metallothionein 1G (MT1G), mRNA.	NM_005950.1	8.65	7.99	-0.66	3.88
ILMN_1712705	RAB40C	RAB40C, member RAS oncogene family (RAB40C), mRNA.	NM_021168.2	12.8	12.22	-0.59	3.88
ILMN_1736093	SNX33	sorting nexin 33 (SNX33), mRNA.	NM_153271.1	8.57	9.24	0.67	3.88
ILMN_1741869	WDR47	WD repeat domain 47 (WDR47), mRNA.	NM_014969.4	9.46	8.76	-0.7	3.87
ILMN_1669557	AIM1L	absent in melanoma 1-like (AIM1L), mRNA.	NM_001039775.1	7.38	6.55	-0.83	3.87
ILMN_1876219		UI-CF-EN1-ael-e-06-18-UI.r18 UI-CF-EN1 cDNA clone UI-CF-EN1-ael-e-06-18-UI 5, mRNA sequence		6.68	7.36	0.68	3.87
ILMN_1861057		hypothetical protein LOC338620, mRNA (cDNA clone IMAGE:6023208), partial cds		6.63	7.24	0.61	3.87
ILMN_1713846	PPM1H	protein phosphatase 1H (PP2C domain containing) (PPM1H), mRNA.	NM_020700.1	7	6.3	-0.7	3.85
ILMN_1803838	CNFN	cornifelin (CNFN), mRNA.	NM_032488.2	8.3	7.75	-0.55	3.85
ILMN_1741032	HERC3	hect domain and RLD 3 (HERC3), mRNA.	NM_014606.1	6.27	7.01	0.74	3.85
ILMN_1663080	LFNG	LFNG O-fucosyltransferase 3-beta-N-acetylglucosaminyltransferase (LFNG), transcript variant 1, mRNA.	NM_001040167.1	11.68	12.2	0.52	3.85
ILMN_1759097	MLLT11	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); translocated to, 11 (MLLT11), mRNA.	NM_006818.3	8.77	9.37	0.6	3.85
ILMN_1803510	LOC650803	PREDICTED: hypothetical protein LOC650803 (LOC650803), mRNA.	XM_938983.1	7.41	8.09	0.67	3.84
ILMN_1751887	PREP	prolyl endopeptidase (PREP), mRNA.	NM_002726.3	9.08	9.67	0.59	3.84
ILMN_1737360	TSPYL3	PREDICTED: TSPY-like 3 (pseudogene) (TSPYL3), misc RNA.	XR_001421.1	6.69	6.16	-0.53	3.83
ILMN_1657199	NFASC	neurofascin homolog (chicken) (NFASC), transcript variant 3, mRNA.	NM_001005389.1	7.91	8.43	0.52	3.83
ILMN_1810836	PDE5A	phosphodiesterase 5A, cGMP-specific (PDE5A), transcript variant 1, mRNA.	NM_001083.3	8.72	8.14	-0.58	3.81
ILMN_2195821	C5orf41	chromosome 5 open reading frame 41 (C5orf41), mRNA.	NM_153607.1	8.2	7.49	-0.7	3.78
ILMN_2413650	STIL	SCL/TAL1 interrupting locus (STIL), transcript variant 2, mRNA.	NM_003035.2	10.34	9.74	-0.6	3.77
ILMN_1684440	PXN	paxillin (PXN), mRNA.	NM_002859.1	7.52	8.23	0.71	3.77
ILMN_1785324	MTHFD1	methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1, methylenetetrahydrofolate cyclohydrolase, formyltetrahydrofolate synthetase 1 (MTHFD1), mRNA	NM_005956.2	8.01	7.43	-0.58	3.76
ILMN_1849494		clone 24841 mRNA sequence		6.01	6.61	0.6	3.76
ILMN_1797031	HSPBAP1	HSPB (heat shock 27kDa) associated protein 1 (HSPBAP1), mRNA.	NM_024610.4	8.89	9.4	0.51	3.76
ILMN_2124187	TSC2D2	TSC22 domain family, member 2 (TSC2D2), mRNA.	NM_014779.2	9.66	10.24	0.57	3.75
ILMN_1754103	CLDN11	claudin 11 (oligodendrocyte transmembrane protein) (CLDN11), mRNA.	NM_005602.4	6.29	6.89	0.61	3.74
ILMN_1674650	C9orf95	chromosome 9 open reading frame 95 (C9orf95), mRNA.	NM_017881.1	10.75	9.97	-0.78	3.73
ILMN_1798926	SOC32	suppressor of cytokine signaling 2 (SOC32), mRNA.	NM_003877.3	8.55	8	-0.55	3.73
ILMN_1776925	PRSS22	protease, serine, 22 (PRSS22), mRNA.	NM_022119.3	6.48	5.89	-0.59	3.72
ILMN_1801767	ABHD3	abhydrolase domain containing 3 (ABHD3), mRNA.	NM_138340.3	10.19	10.71	0.52	3.72
ILMN_1661628	LOC653110	PREDICTED: similar to annexin A8, transcript variant 1 (LOC653110), mRNA.	XM_926584.1	12.21	12.87	0.65	3.71
ILMN_1711608	SSBP2	single-stranded DNA binding protein 2 (SSBP2), mRNA.	NM_012446.2	6.95	6.25	-0.7	3.68
ILMN_1660806	CSR2	cysteine and glycine-rich protein 2 (CSR2), mRNA.	NM_001321.1	8.8	9.45	0.65	3.68
ILMN_1730523	C16orf14	chromosome 16 open reading frame 14 (C16orf14), mRNA.	NM_138418.2	7.79	7.17	-0.62	3.67
ILMN_2074258	BARD1	BRCA1 associated RING domain 1 (BARD1), mRNA.	NM_000465.1	9.37	8.79	-0.58	3.67
ILMN_1717799	PRKCE	protein kinase C, epsilon (PRKCE), mRNA.	NM_005400.2	6.51	5.89	-0.62	3.66
ILMN_1881526		od80c09.s1 NCI CGAP Ov2 cDNA clone IMAGE:1374256, mRNA sequence		8.93	8.31	-0.62	3.66
ILMN_2262203	PMS2CL	PMS2 C-terminal like pseudogene (PMS2CL) on chromosome 7.	NR_002217.1	8.11	7.33	-0.78	3.65
ILMN_2346479	HOMER2	homer homolog 2 (Drosophila) (HOMER2), transcript variant 4, mRNA.	NM_199332.2	6.75	7.4	0.65	3.65
ILMN_1762106	MMP2	matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase) (MMP2), mRNA.	NM_004530.2	6.71	7.29	0.58	3.65
ILMN_1698685	MATN2	matrilin 2 (MATN2), transcript variant 1, mRNA.	NM_002380.3	9	8.42	-0.58	3.63
ILMN_1706969	C6orf65	chromosome 6 open reading frame 65 (C6orf65), mRNA.	NM_152731.2	6.55	7.13	0.59	3.62
ILMN_1668351	TAF6	TAF6 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 80kDa (TAF6), transcript variant 2, mRNA.	NM_139315.1	8.23	7.37	-0.85	3.61
ILMN_1810533	SLC6A15	solute carrier family 6, member 15 (SLC6A15), transcript variant 1, mRNA.	NM_182767.3	6.33	6.96	0.63	3.61
ILMN_1656184	PI4KAP1	phosphatidylinositol 4-kinase, catalytic, alpha pseudogene 1 (PI4KAP1) on chromosome 22.	NR_003563.1	8.8	8.21	-0.59	3.6
ILMN_2409220	HMMR	hyaluronan-mediated motility receptor (RHAMM) (HMMR), transcript variant 1, mRNA.	NM_012484.1	9.32	8.69	-0.63	3.58
ILMN_1813568	TRPV1	transient receptor potential cation channel, subfamily V, member 1 (TRPV1), transcript variant 4, mRNA.	NM_080705.3	8.53	9.18	0.65	3.58
ILMN_1690939	ECGF1	endothelial cell growth factor 1 (platelet-derived) (ECGF1), mRNA.	NM_001953.2	6.34	6.96	0.62	3.58
ILMN_1668910	CIDEB	cell death-inducing DFFA-like effector b (CIDEB), mRNA.	NM_014430.2	7.58	6.96	-0.62	3.57
ILMN_2225974	GCLM	glutamate-cysteine ligase, modifier subunit (GCLM), mRNA.	NM_002061.2	8.34	9	0.66	3.56
ILMN_1695110	BCAT2	branched chain aminotransferase 2, mitochondrial (BCAT2), nuclear gene encoding mitochondrial protein, mRNA.	NM_001190.2	8.98	8.41	-0.57	3.55
ILMN_1671905	C10orf78	chromosome 10 open reading frame 78 (C10orf78), transcript variant 2, mRNA.	NM_145247.4	9.73	9.04	-0.69	3.55
ILMN_1661599	DDIT4	DNA-damage-inducible transcript 4 (DDIT4), mRNA.	NM_019058.2	12.93	12.41	-0.51	3.55
ILMN_1777895	LRRC37B	leucine rich repeat containing 37B (LRRC37B), mRNA.	NM_052888.2	9.9	9.36	-0.54	3.55
ILMN_1809783	LOC643161	PREDICTED: hypothetical LOC643161 (LOC643161), mRNA.	XM_926530.2	6.01	6.55	0.54	3.55
ILMN_1796336	MAP15	microtubule-associated protein 15 (MAP15), mRNA.	NM_018174.4	7.91	7.33	-0.58	3.54
ILMN_2075757	LRIG3	leucine-rich repeats and immunoglobulin-like domains 3 (LRIG3), mRNA.	NM_153377.3	7.84	8.56	0.72	3.53
ILMN_1716370	TNS4	tensin 4 (TNS4), mRNA.	NM_032865.4	6.42	7.1	0.68	3.53
ILMN_1707553	FAM59A	family with sequence similarity 59, member A (FAM59A), mRNA.	NM_022751.1	8.24	7.66	-0.58	3.52
ILMN_1652521	MTMR9	myotubularin related protein 9 (MTMR9), mRNA.	NM_015458.3	9.02	9.53	0.51	3.52
ILMN_1775822	PDGFB	platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog) (PDGFB), transcript variant 1, mRNA.	NM_002608.1	6	6.59	0.59	3.52
ILMN_1760849	NETO2	neuropilin (NRP) and toll-like (TLL)-like 2 (NETO2), mRNA.	NM_018092.3	9.38	8.86	-0.52	3.5
ILMN_1742981	TUBA1A	tubulin, alpha 1a (TUBA1A), mRNA.	NM_006009.2	10.61	11.32	0.71	3.5
ILMN_1742167	TUBA1C	tubulin, alpha 1c (TUBA1C), mRNA.	NM_032704.2	13.02	13.56	0.54	3.5
ILMN_1656938	LOC731486	PREDICTED: hypothetical protein LOC731486 (LOC731486), mRNA.	XM_001133149.1	8.76	8.22	-0.54	3.49
ILMN_1662358	MX1	myxovirus (influenza virus) resistance 1, interferon-inducible protein p78 (mouse) (MX1), mRNA.	NM_002462.2	8.3	7.2	-1.1	3.49
ILMN_1718395	LCE3D	late cornified envelope 3D (LCE3D), mRNA.	NM_032563.1	5.63	6.26	0.63	3.49
ILMN_1788783	TRAM2	translocation associated membrane protein 2 (TRAM2), mRNA.	NM_012288.3	7.54	8.19	0.65	3.49
ILMN_2376050	FXD3	FXD domain containing ion transport regulator 3 (FXD3), transcript variant 1, mRNA.	NM_005971.2	10.66	9.93	-0.73	3.48
ILMN_2223903	PPIC	peptidylprolyl isomerase C (cyclophilin C) (PPIC), mRNA.	NM_000943.4	9.35	9.92	0.57	3.48
ILMN_1664855	PPP1R14C	protein phosphatase 1, regulatory (inhibitor) subunit 14C (PPP1R14C), mRNA.	NM_030949.2	8.41	9.96	0.55	3.47
ILMN_1677962	GPHN	gephyrin (GPHN), transcript variant 2, mRNA.	NM_001024218.1	9.74	8.2	-0.54	3.45
ILMN_1840920		mRNA; cDNA DKFZp313O229 (from clone DKFZp313O229)		6.76	6.16	-0.6	3.45
ILMN_1903914		cDNA FLJ26188 fis, clone ADG04821		7.97	8.63	0.65	3.45
ILMN_1735038	39875	membrane-associated ring finger (C3HC4) 3 (MARCH3), mRNA.	NM_178450.2	6.76	7.32	0.56	3.45
ILMN_1753830	ETV4	ets variant gene 4 (E1A enhancer binding protein, E1AF) (ETV4), mRNA.	NM_001986.1	6.44	6.99	0.55	3.45
ILMN_1730611	RTN4	reticulon 4 (RTN4), transcript variant 3, mRNA.	NM_007008.2	11.65	12.35	0.7	3.44
ILMN_1801766	CCDC109B	coiled-coil domain containing 109B (CCDC109B), mRNA.	NM_017918.3	10.12	10.65	0.53	3.44
ILMN_1760040	PPII3	peptidylprolyl isomerase (cyclophilin)-like 3 (PPII3), transcript variant PPII3c, mRNA.	NM_131916.1	6.89	6.32	-0.58	3.43
ILMN_1701643	GDPD5	glycerophosphodiester phosphodiesterase domain containing 5 (GDPD5), mRNA.	NM_030792.5	6.82	6.27	-0.54	3.43
ILMN_1770653	MAL2	mal, T-cell differentiation protein 2 (MAL2), mRNA.	NM_052886.2	10.37	9.62	-0.75	3.43
ILMN_177644	P1BSPA	phosphatidylinositol (4,5) bisphosphate 5-phosphatase, A (P1BSPA), transcript variant 1, mRNA.	NM_014422.2	7.5	6.99	-0.51	3.43
ILMN_1720048	CCL2	chemokine (C-C motif) ligand 2 (CCL2), mRNA.	NM_002982.3	7.54	6.87	-0.67	3.42
ILMN_1709124	TMEM16H	transmembrane protein 16H (TMEM16H), mRNA.	NM_020959.1	7.25	6.68	-0.57	3.4
ILMN_1810977	CDV3	CDV3 homolog (mouse) (CDV3), mRNA. XM_945284 XM_945286 XM_945287	NM_017548.3	10.63	11.19	0.56	3.4
ILMN_1685480	TARS	threonyl-tRNA synthetase (TARS), mRNA.	NM_152295.3	10.75	11.3	0.55	3.4
ILMN_1745005	C7orf24	chromosome 7 open reading frame 24 (C7orf24), mRNA.	NM_024051.2	9.5	8.92	-0.58	3.39

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_1725366	SLC27A5	solute carrier family 27 (fatty acid transporter), member 5 (SLC27A5), mRNA.	NM_012254.1	7.14	6.54	-0.6	3.39
ILMN_1735415	NUDT16L1	nudix (nucleoside diphosphate linked moiety X)-type motif 16-like 1 (NUDT16L1), mRNA.	NM_032349.2	9.21	8.7	-0.51	3.39
ILMN_1673778	LOC649270	PREDICTED: similar to aminopeptidase puromycin sensitive, transcript variant 2 (LOC649270), mRNA.	XM_945378.1	8.06	7.5	-0.56	3.38
ILMN_1707748	PIM3	PREDICTED: pim-3 oncogene (PIM3), mRNA.	XM_938171.2	7.46	6.82	-0.64	3.37
ILMN_1670705	STON2	stonin 2 (STON2), mRNA.	NM_033104.2	5.86	6.44	0.58	3.37
ILMN_2226223	GJB6	gap junction protein, beta 6 (GJB6), mRNA.	NM_006783.2	5.76	6.33	0.57	3.37
ILMN_1727200	SLCO4A1	solute carrier organic anion transporter family, member 4A1 (SLCO4A1), mRNA.	NM_016354.3	6.75	6.16	-0.59	3.36
ILMN_1730575	GCLC	glutamate-cysteine ligase, catalytic subunit (GCLC), mRNA.	NM_001498.2	9.25	8.71	-0.54	3.36
ILMN_1708611	RDX	radixin (RDX), mRNA.	NM_002906.3	8.84	9.61	0.77	3.36
ILMN_1720267	TARSL2	threonyl-tRNA synthetase-like 2 (TARSL2), mRNA.	NM_152334.2	6.65	7.26	0.61	3.36
ILMN_1770719	KIAA0664	KIAA0664 (KIAA0664), mRNA.	NM_015229.3	8.45	7.9	-0.55	3.35
ILMN_1692223	LCN2	lipocalin 2 (LCN2), mRNA.	NM_005564.3	10.44	9.93	-0.5	3.35
ILMN_1792072	FUT4	fucosyltransferase 4 (alpha (1,3) fucosyltransferase, myeloid-specific) (FUT4), mRNA.	NM_002033.2	6.3	6.88	0.57	3.35
ILMN_2340919	GRB10	growth factor receptor-bound protein 10 (GRB10), transcript variant 1, mRNA.	NM_005311.3	5.92	6.43	0.51	3.35
ILMN_2086095	ID2	inhibitor of DNA binding 2, dominant negative helix-loop-helix protein (ID2), mRNA.	NM_002166.4	9.7	8.97	-0.72	3.34
ILMN_1789638	MFSO2	major facilitator superfamily domain containing 2 (MFSO2), mRNA.	NM_032793.2	5.81	6.33	0.53	3.34
ILMN_2168952	DENR	density-regulated protein (DENR), mRNA.	NM_003677.3	10.91	11.49	0.58	3.33
ILMN_2089329	SPRY2	sprouty homolog 2 (Drosophila) (SPRY2), mRNA.	NM_005842.2	8.11	8.72	0.62	3.32
ILMN_1666076	ARHGEF4	Rho guanine nucleotide exchange factor (GEF) 4 (ARHGEF4), transcript variant 1, mRNA.	NM_015320.2	8.83	8.22	-0.61	3.31
ILMN_1700541	FBLN1	fibulin 1 (FBLN1), transcript variant C, mRNA.	NM_001996.2	8.47	7.95	-0.53	3.31
ILMN_1761281	LOC441019	PREDICTED: hypothetical LOC441019 (LOC441019), mRNA.	XM_498969.2	7.7	7.13	-0.58	3.31
ILMN_1664706	LOC653604	PREDICTED: similar to H3 histone, family 2 isoform 2 (LOC653604), mRNA.	XM_497711.2	7.27	6.62	-0.66	3.31
ILMN_1815114	FLJ27365	FLJ27365 protein (FLJ27365), mRNA.	NM_207477.1	7.51	8.06	0.55	3.31
ILMN_1794501	HAS3	hyaluronan synthase 3 (HAS3), transcript variant 1, mRNA.	NM_005329.2	7.6	6.98	-0.62	3.3
ILMN_1751561	CAMK1D	calcium/calmodulin-dependent protein kinase ID (CAMK1D), transcript variant 2, mRNA.	NM_153498.2	6.56	7.09	0.52	3.3
ILMN_1692100	ZNF35	zinc finger protein 35 (ZNF35), mRNA.	NM_003420.3	6.8	7.3	0.5	3.3
ILMN_1676285	DHX9	DEAH (Asp-Glu-Ala-His) box polypeptide 9 (DHX9), mRNA.	NM_001357.3	7.17	6.58	-0.59	3.28
ILMN_1763882	LOC644634	PREDICTED: hypothetical LOC644634, transcript variant 1 (LOC644634), mRNA.	XM_001133559.1	7.22	7.79	0.56	3.28
ILMN_1686988	ST5	suppression of tumorigenicity 5 (ST5), transcript variant 3, mRNA.	NM_213618.1	7.55	8.11	0.56	3.28
ILMN_2151281	GABARAPL1	GABA(A) receptor-associated protein like 1 (GABARAPL1), mRNA.	NM_031412.2	9.92	10.54	0.62	3.26
ILMN_2392818	RTKN	roctekin (RTKN), transcript variant 3, mRNA.	NM_001015056.1	6.77	7.41	0.64	3.25
ILMN_2346831	MGAT2	mannosyl (alpha-1,6)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase (MGAT2), transcript variant 2, mRNA.	NM_001015883.1	8.54	9.06	0.52	3.24
ILMN_1717706	PLK2	polo-like kinase 2 (Drosophila) (PLK2), mRNA.	NM_006622.2	7.31	8.02	0.71	3.24
ILMN_2325394	MSH5	mutS homolog 5 (E. coli) (MSH5), transcript variant 4, mRNA.	NM_172166.2	7.01	6.27	-0.75	3.23
ILMN_2068499	POU5F1P1	POU class 5 homeobox 1 pseudogene 1 (POU5F1P1) on chromosome 8.	NR_002304.1	6.79	6.22	-0.56	3.23
ILMN_2314007	TCF12	transcription factor 12 (HTF4, helix-loop-helix transcription factors 4) (TCF12), transcript variant 2, mRNA.	NM_207037.1	9.9	10.66	0.75	3.23
ILMN_1701477	CCDC101	coiled-coil domain containing 101 (CCDC101), mRNA.	NM_138414.1	6.78	6.23	-0.55	3.22
ILMN_1664993	GIYD2	GIY-YIG domain containing 2 (GIYD2), transcript variant 1, mRNA.	NM_024044.2	7.07	6.36	-0.72	3.22
ILMN_2202948	BUB1	BUB1 budding uninhibited by benzimidazoles 1 homolog (yeast) (BUB1), mRNA.	NM_004336.2	8.19	7.59	-0.6	3.2
ILMN_1657868	SIRT4	sirtuin (silent mating type information regulation 2 homolog) 4 (S. cerevisiae) (SIRT4), mRNA.	NM_012240.1	7.23	6.63	-0.61	3.19
ILMN_1879480		cDNA FLJ35319 fis, clone PROST2011577		8.11	7.5	-0.6	3.18
ILMN_2120631	TPRXL	tetra-peptide repeat homeobox-like (TPRXL) on chromosome 3.	NR_002223.1	7.04	6.44	-0.6	3.17
ILMN_1678671	KLHL24	kelch-like 24 (Drosophila) (KLHL24), mRNA.	NM_017644.3	10.71	10.12	-0.6	3.17
ILMN_1782688	THNSL1	threonine synthase-like 1 (S. cerevisiae) (THNSL1), mRNA.	NM_024838.4	7.34	6.7	-0.65	3.17
ILMN_1911503		jp26b05.y1 HR85 islet cDNA clone IMAGE:6218432.5, mRNA sequence		9.25	8.73	-0.52	3.17
ILMN_2124352	DCUN1D5	DCN1, defective in cullin neddylation 1, domain containing 5 (S. cerevisiae) (DCUN1D5), mRNA.	NM_032299.2	10.01	10.54	0.53	3.17
ILMN_1745112	FAM102A	family with sequence similarity 102, member A (FAM102A), transcript variant 1, mRNA.	NM_001035254.1	8	7.48	-0.52	3.16
ILMN_1698020	DLC1	deleted in liver cancer 1 (DLC1), transcript variant 3, mRNA.	NM_024767.2	8.84	9.45	0.61	3.16
ILMN_1708093	ARHGEF5	Rho guanine nucleotide exchange factor (GEF) 5 (ARHGEF5), mRNA.	NM_005435.3	8.27	8.8	0.53	3.15
ILMN_1669572	RNF126	ring finger protein 126 (RNF126), mRNA.	NM_194460.1	7.87	8.43	0.56	3.15
ILMN_1772036	STEAP4	STEAP family member 4 (STEAP4), mRNA.	NM_024636.2	6.37	5.82	-0.55	3.14
ILMN_1821052		602508665F1 NIH_MGC_79 cDNA clone IMAGE:4605617.5, mRNA sequence		6.55	7.12	0.57	3.13
ILMN_1799598	SIRT5	sirtuin (silent mating type information regulation 2 homolog) 5 (S. cerevisiae) (SIRT5), transcript variant 1, mRNA.	NM_012241.2	7.63	7.07	-0.57	3.11
ILMN_2308338	BMF	Bcl2 modifying factor (BMF), transcript variant 4, mRNA.	NM_001003943.1	7.63	8.26	0.63	3.1
ILMN_1708672	ACAT2	acetyl-Coenzyme A acetyltransferase 2 (ACAT2), mRNA.	NM_005891.2	11.23	11.75	0.52	3.09
ILMN_1912827		K-EST0216649 L17N670205n1 cDNA clone L17N670205n1-10-D09.5, mRNA sequence		6.82	7.37	0.55	3.09
ILMN_1776487	TADA1L	transcriptional adaptor 1 (HFI1 homolog, yeast)-like (TADA1L), mRNA.	NM_053053.2	8.37	7.83	-0.54	3.08
ILMN_2379560	CDC14B	CDC14 cell division cycle 14 homolog B (S. cerevisiae) (CDC14B), transcript variant 2, mRNA.	NM_053331.2	9.94	9.4	-0.54	3.07
ILMN_1758049	NFIA	nuclear factor I/A (NFIA), mRNA.	NM_005595.1	7.97	7.32	-0.64	3.07
ILMN_2391458	ACSL4	acyl-CoA synthetase long-chain family member 4 (ACSL4), transcript variant 2, mRNA.	NM_022977.1	6.13	6.77	0.64	3.07
ILMN_1690621	GPR98	G protein-coupled receptor 98 (GPR98), transcript variant 1, mRNA.	NM_032119.3	6.78	7.34	0.56	3.06
ILMN_1757910	HIP1R	PREDICTED: huntingtin interacting protein 1 related (HIP1R), mRNA.	XM_001132864.1	6.59	7.19	0.6	3.06
ILMN_1724437	GCAT	glycine C-acetyltransferase (2-amino-3-ketobutyrate coenzyme A ligase) (GCAT), nuclear gene encoding mitochondrial protein,	NM_014291.2	7.83	7.26	-0.57	3.05
ILMN_1774708	ORMDL2	ORM1-like 2 (S. cerevisiae) (ORMDL2), mRNA.	NM_014182.4	7.42	8.08	0.66	3.05
ILMN_1677511	PTGS2	prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase) (PTGS2), mRNA.	NM_000963.1	5.98	6.49	0.51	3.05
ILMN_2287157	DST	dystonin (DST), transcript variant 1, mRNA.	NM_183380.1	7.75	8.37	0.62	3.04
ILMN_2117323	PIK3C2B	phosphoinositide-3-kinase, class 2, beta polypeptide (PIK3C2B), mRNA.	NM_002646.2	9.3	8.74	-0.56	3.03
ILMN_1769027	CDC42SE1	CDC42 small effector 1 (CDC42SE1), transcript variant 1, mRNA.	NM_001038707.1	7.12	7.79	0.66	3.03
ILMN_1722798	PLCD3	phospholipase C, delta 3 (PLCD3), mRNA.	NM_133373.3	8.19	7.52	-0.67	3.02
ILMN_1728009	TMEM171	transmembrane protein 171 (TMEM171), mRNA.	NM_173490.5	6.1	6.64	0.53	3.02
ILMN_1702237	FKBP1A	FK506 binding protein 1A, 12kDa (FKBP1A), transcript variant 12A, mRNA.	NM_054014.1	6.26	6.77	0.51	3.02
ILMN_1739241	CHAC1	ChaC, cation transport regulator homolog 1 (E. coli) (CHAC1), mRNA.	NM_024111.2	5.83	6.56	0.72	3.02
ILMN_1732717	FAM71E1	family with sequence similarity 71, member E1 (FAM71E1), mRNA.	NM_138411.1	8.13	7.59	-0.54	3.01
ILMN_1730491	FMNL2	formin-like 2 (FMNL2), mRNA.	NM_052905.3	6.33	6.83	0.51	3.01
ILMN_2211122	SEDLP	spondyloepiphyseal dysplasia, late, pseudogene (SEDLP) on chromosome 19.	NR_002166.1	8.59	9.09	0.5	3
ILMN_2370907	RAD51L3	RAD51-like 3 (S. cerevisiae) (RAD51L3), transcript variant 1, mRNA.	NM_002878.2	6.55	5.98	-0.56	2.98
ILMN_1774974	CLUAP1	clusterin associated protein 1 (CLUAP1), transcript variant 1, mRNA.	NM_015041.1	8.93	8.26	-0.67	2.98
ILMN_1714691	HOXD10	homeobox D10 (HOXD10), mRNA.	NM_002148.3	8.87	9.37	0.51	2.98
ILMN_1717207	MMP25	matrix metalloproteinase 25 (MMP25), mRNA.	NM_022468.4	6.61	6.11	-0.51	2.97
ILMN_1683932	ZNF425	zinc finger protein 425 (ZNF425), mRNA.	NM_001001661.1	7.53	6.9	-0.64	2.97
ILMN_1707312	NFIL3	nuclear factor, interleukin 3 regulated (NFIL3), mRNA.	NM_005384.2	7.58	8.26	0.68	2.95
ILMN_1687213	C8orf13	chromosome 8 open reading frame 13 (C8orf13), mRNA.	NM_053279.1	6.91	6.38	-0.53	2.94
ILMN_1752639	SLC25A24	solute carrier family 25 (mitochondrial carrier; phosphate carrier), member 24 (SLC25A24), nuclear gene encoding mitochondrial	NM_013386.3	9	9.51	0.51	2.94
ILMN_1656463	C11orf73	chromosome 11 open reading frame 73 (C11orf73), mRNA.	NM_016401.2	8.4	9.09	0.69	2.93
ILMN_2384785	CCNE1	cyclin E1 (CCNE1), transcript variant 2, mRNA.	NM_057182.1	6.75	6.24	-0.51	2.92
ILMN_1652185	IL4R	interleukin 4 receptor (IL4R), transcript variant 1, mRNA.	NM_000418.2	7.71	8.23	0.52	2.92
ILMN_1740487	CMTM7	CKLF-like MARVEL transmembrane domain containing 7 (CMTM7), transcript variant 1, mRNA.	NM_138410.2	6.41	6.94	0.53	2.92
ILMN_1684653	GPR115	G protein-coupled receptor 115 (GPR115), mRNA.	NM_153388.3	6.03	6.72	0.69	2.91
ILMN_1776788	C5orf41	chromosome 5 open reading frame 41 (C5orf41), mRNA.	NM_153607.1	7.85	7.17	-0.68	2.9
ILMN_1677273	TH	tyrosine hydroxylase (TH), transcript variant 3, mRNA.	NM_199293.2	6.81	6.22	-0.58	2.9
ILMN_1785265	PLS3	plastin 3 (T isoform) (PLS3), mRNA.	NM_005032.3	10.49	11.26	0.77	2.89
ILMN_2052373	RAB17	RAB17, member RAS oncogene family (RAB17), mRNA.	NM_022449.1	7.94	7.42	-0.52	2.88
ILMN_1696485	HNRNPAB	heterogeneous nuclear ribonucleoprotein A/B (HNRNPAB), transcript variant 1, mRNA.	NM_031266.2	9.27	9.81	0.54	2.86
ILMN_1703913	DST	dystonin (DST), transcript variant 1e, mRNA.	NM_001723.4	9.54	10.1	0.57	2.84
ILMN_1766280	LOC645963	PREDICTED: similar to ubiquitin specific protease 6 (LOC645963), mRNA.	XM_928930.1	6.83	6.3	-0.53	2.82
ILMN_2406501	SOD2	superoxide dismutase 2, mitochondrial (SOD2), nuclear gene encoding mitochondrial protein, transcript variant 3, mRNA.	NM_01024466.1	7.64	7.13	-0.51	2.8
ILMN_1746376	SCARA3	scavenger receptor class A, member 3 (SCARA3), transcript variant 2, mRNA.	NM_182826.1	8.83	8.27	-0.56	2.79
ILMN_2339955	NR4A2	nuclear receptor subfamily 4, group A, member 2 (NR4A2), transcript variant 1, mRNA.	NM_006186.2	6.81	6.26	-0.55	2.78
ILMN_1728048	LOC158160	hypothetical protein LOC158160 (LOC158160), transcript variant 1, mRNA.	NM_001031744.1	9.76	10.42	0.65	2.78
ILMN_1756408	PARVA	parvin, alpha (PARVA), mRNA.	NM_018222.2	6.95	7.54	0.59	2.78
ILMN_2078592	C6orf105	chromosome 6 open reading frame 105 (C6orf105), mRNA.	NM_032744.1	6.53	7.04	0.51	2.78

**Supplement 2: TGFb Signature - significantly regulated genes upon 12h TGFb stimulation of HaCaT cells**

Illumina Identifier	HGNC gene symbol	Gene Description	Refseq ID	UT 12h	UT+TGFb 12h	LR +/- TGFb 12h	-log10 pVAL LR +/- TGFb 12h
ILMN_2083946	TGFA	transforming growth factor, alpha (TGFA), mRNA.	NM_003236.1	7.89	8.43	0.54	2.77
ILMN_1670570	MXI1	MAX interactor 1 (MXI1), transcript variant 1, mRNA.	NM_005962.4	6.42	5.91	-0.51	2.74
ILMN_1804090	SLC25A10	solute carrier family 25 (mitochondrial carrier; dicarboxylate transporter), member 10 (SLC25A10), nuclear gene encoding mito	NM_012140.3	8.45	7.88	-0.57	2.73
ILMN_1694780	GCHFR	GTP cyclohydrolase I feedback regulator (GCHFR), mRNA.	NM_005258.2	7.85	7.27	-0.58	2.72
ILMN_1671703	ACTA2	actin, alpha 2, smooth muscle, aorta (ACTA2), mRNA.	NM_001613.1	8.27	7.62	-0.65	2.71
ILMN_1716591	SPRR1A	small proline-rich protein 1A (SPRR1A), mRNA.	NM_005987.2	7.65	8.33	0.68	2.7
ILMN_1655046	NUTF2	nuclear transport factor 2 (NUTF2), mRNA.	NM_005796.1	7.6	8.22	0.62	2.7
ILMN_2291455	FAM102A	family with sequence similarity 102, member A (FAM102A), transcript variant 1, mRNA.	NM_001035254.1	7.18	6.65	-0.53	2.69
ILMN_1744217	HTR7	5-hydroxytryptamine (serotonin) receptor 7 (adenylate cyclase-coupled) (HTR7), transcript variant a, mRNA.	NM_000872.3	7.12	7.71	0.59	2.69
ILMN_1789502	GPC4	glypican 4 (GPC4), mRNA.	NM_001448.2	5.71	6.31	0.6	2.69
ILMN_2221046	GM2A	GM2 ganglioside activator (GM2A), mRNA.	NM_000405.3	8.06	7.25	-0.81	2.66
ILMN_1664543	IFIT3	interferon-induced protein with tetratricopeptide repeats 3 (IFIT3), mRNA.	NM_001031683.1	6.49	5.87	-0.62	2.66
ILMN_2414399	NME1	non-metastatic cells 1, protein (NME1) expressed in (NME1), transcript variant 2, mRNA.	NM_000269.2	7.59	8.11	0.52	2.66
ILMN_1704579	ABCA13	ATP-binding cassette, sub-family A (ABCA1), member 13 (ABCA13), mRNA.	NM_152701.2	6.29	5.79	-0.51	2.65
ILMN_2404625	LAT	linker for activation of T cells (LAT), transcript variant 2, mRNA.	NM_001014987.1	7.86	7.33	-0.53	2.65
ILMN_1730351	FLJ35767	FLJ35767 protein (FLJ35767), mRNA.	NM_207459.1	6.87	6.33	-0.54	2.64
ILMN_2046024	DUSP11	dual specificity phosphatase 11 (RNA/RNP complex 1-interacting) (DUSP11), mRNA.	NM_003584.1	8.24	8.87	0.63	2.64
ILMN_2121568	GBP6	guanylate binding protein family, member 6 (GBP6), mRNA.	NM_198460.1	7.49	6.79	-0.71	2.63
ILMN_1895660		K-EST0058554 S13KMS5s1 cDNA clone S13KMS5s1-7-G08 5, mRNA sequence		5.93	6.45	0.52	2.63
ILMN_238963	SLC29A1	solute carrier family 29 (nucleoside transporters), member 1 (SLC29A1), nuclear gene encoding mitochondrial protein, transcript	NM_001078174.1	7.44	7.97	0.53	2.63
ILMN_1669832	TCF12	transcription factor 12 (HTF4, helix-loop-helix transcription factors 4) (TCF12), transcript variant 4, mRNA.	NM_207038.1	9.7	10.45	0.75	2.63
ILMN_1748090	SLC2A11	solute carrier family 2 (facilitated glucose transporter), member 11 (SLC2A11), transcript variant 3, mRNA.	NM_001024938.1	7.16	6.5	-0.66	2.61
ILMN_1762899	EGR1	early growth response 1 (EGR1), mRNA.	NM_001964.2	10.57	11.08	0.51	2.6
ILMN_1715273	PICALM	phosphatidylinositol binding clathrin assembly protein (PICALM), transcript variant 1, mRNA.	NM_007166.2	10.38	10.93	0.55	2.6
ILMN_1892403	SNORD13	small nucleolar RNA, C/D box 13 (SNORD13) on chromosome 8.	NR_003041.1	7.67	6.9	-0.77	2.59
ILMN_2042343	MRPL42P5	mitochondrial ribosomal protein L42 pseudogene 5 (MRPL42P5) on chromosome 15.	NR_002208.1	8.18	8.79	0.61	2.59
ILMN_1720695	LOC730833	PREDICTED: similar to filaggrin (LOC730833), mRNA.	XR_015587.1	6.92	6.37	-0.54	2.58
ILMN_1739645	ANLN	anillin, actin binding protein (ANLN), mRNA.	NM_018685.2	9.23	8.52	-0.71	2.58
ILMN_1669842	CHAF1A	chromatin assembly factor 1, subunit A (p150) (CHAF1A), mRNA.	NM_005483.2	7.01	6.45	-0.57	2.56
ILMN_1738707	S100A13	S100 calcium binding protein A13 (S100A13), transcript variant 2, mRNA.	NM_005979.2	7.3	6.77	-0.54	2.56
ILMN_2394242	AMMECR1	Alport syndrome, mental retardation, midface hypoplasia and elliptocytosis chromosomal region, gene 1 (AMMECR1), transcript	NM_001025580.1	7.28	8	0.72	2.56
ILMN_1808824	NEBL	nebulin (NEBL), transcript variant 1, mRNA.	NM_006393.1	8.53	7.88	-0.65	2.54
ILMN_1847965		full-length cDNA clone CS0DC013Y110 of Neuroblastoma Cot 25-normalized of (human)		9.24	9.77	0.52	2.54
ILMN_2382628	ABHD11	abhydrolase domain containing 11 (ABHD11), transcript variant 6, mRNA.	NM_148916.2	7.15	6.63	-0.52	2.53
ILMN_1788211	SNX19	sorting nexin 19 (SNX19), mRNA.	NM_014758.1	8.07	8.66	0.59	2.51
ILMN_1766405	GOLM1	golgi membrane protein 1 (GOLM1), transcript variant 2, mRNA.	NM_177937.1	7.68	7.12	-0.56	2.5
ILMN_1714765	LOC389599	PREDICTED: similar to amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 2 (LOC389599), mRNA.	NM_001131588.1	8.4	7.89	-0.51	2.5
ILMN_1711543	C14orf169	chromosome 14 open reading frame 169 (C14orf169), mRNA.	NM_024644.2	7.94	8.5	0.57	2.5
ILMN_1674316	LOC727751	PREDICTED: similar to cis-Golgi matrix protein GM130 (LOC727751), mRNA.	XM_001125719.1	7.33	6.82	-0.52	2.49
ILMN_1659536	FAM24B	family with sequence similarity 24, member B (FAM24B), mRNA.	NM_152644.1	7.07	6.57	-0.5	2.47
ILMN_1812552	PHCA	phytylceramidase, alkaline (PHCA), mRNA.	NM_018367.4	8.64	9.25	0.61	2.47
ILMN_1772845	U15NRNPBP	U11/U12 snRNP 35K (U15NRNPBP), transcript variant 3, mRNA.	NM_180699.1	7.79	8.31	0.52	2.46
ILMN_1789095	BMPR2	bone morphogenetic protein receptor, type II (serine/threonine kinase) (BMPR2), mRNA.	NM_001204.5	8.56	9.1	0.53	2.43
ILMN_2317543	ITGB4	integrin, beta 4 (ITGB4), transcript variant 3, mRNA.	NM_001005731.1	10.26	10.76	0.5	2.42
ILMN_1835631		AV645572 GLC cDNA clone GLCABG03 3, mRNA sequence		8.1	8.72	0.62	2.41
ILMN_2190051	CCDC91	coiled-coil domain containing 91 (CCDC91), mRNA.	NM_018318.3	7.06	7.78	0.72	2.4
ILMN_1664177	ATXN7L2	ataxin 7-like 2 (ATXN7L2), mRNA.	NM_153340.3	7.1	6.56	-0.54	2.39
ILMN_1658821	SAMD1	sterile alpha motif domain containing 1 (SAMD1), mRNA.	NM_138352.1	6.94	7.48	0.54	2.39
ILMN_2362368	U2AF1	U2 small nuclear RNA auxiliary factor 1 (U2AF1), transcript variant b, mRNA.	NM_001025203.1	8.36	8.93	0.58	2.39
ILMN_1674231	CHAF1B	chromatin assembly factor 1, subunit B (p60) (CHAF1B), mRNA.	NM_005441.2	8.41	7.9	-0.51	2.38
ILMN_1721868	KPNA2	karyopherin alpha 2 (RAG cohort 1, importin alpha 1) (KPNA2), mRNA. XM_001133262 XM_001133265 XM_001133267 XM_001133268	NM_002266.2	9.43	9.99	0.56	2.38
ILMN_1801776	PSG9	pregnancy specific beta-1-glycoprotein 9 (PSG9), mRNA.	NM_002784.2	6.59	6.08	-0.51	2.36
ILMN_1760649	PCK2	phosphoenolpyruvate carboxykinase 2 (mitochondrial) (PCK2), nuclear gene encoding mitochondrial protein, transcript variant	NM_001018073.1	7.41	7.92	0.51	2.36
ILMN_2384857	DHRS2	dehydrogenase/reductase (SDR family) member 2 (DHRS2), transcript variant 1, mRNA.	NM_182908.3	6.16	6.83	0.67	2.35
ILMN_1773417	AKR1C2	PREDICTED: aldo-keto reductase family 1, member C2 (dihydrodiol dehydrogenase 2; bile acid binding protein; 3-alpha hydroxy	NM_943415.1	7.23	6.72	-0.51	2.31
ILMN_1743646	VASP	vasodilator-stimulated phosphoprotein (VASP), mRNA.	NM_003370.3	6.79	7.4	0.61	2.27
ILMN_2408968	UEVLD	UEV and lactate/malate dehydrogenase domains (UEVLD), transcript variant 1, mRNA.	NM_001040697.1	8.13	8.69	0.56	2.25
ILMN_1654737	TRIM32	tripartite motif-containing 32 (TRIM32), transcript variant 1, mRNA.	NM_012210.3	8.59	9.12	0.53	2.22
ILMN_2299795	CPM	carboxypeptidase M (CPM), transcript variant 3, mRNA.	NM_001005502.1	6.14	6.69	0.55	2.22
ILMN_1802819	DEPDC1	DEP domain containing 1 (DEPDC1), mRNA.	NM_017779.3	6.76	6.23	-0.53	2.21
ILMN_1702738	KLC3	kinesin light chain 3 (KLC3), transcript variant 1, mRNA.	NM_177417.1	7.31	7.84	0.53	2.19
ILMN_2102960	KIAA1370	KIAA1370 (KIAA1370), mRNA.	NM_019600.1	9.76	9.26	-0.5	2.18
ILMN_1718046	ARNT2	aryl-hydrocarbon receptor nuclear translocator 2 (ARNT2), mRNA.	NM_014862.3	6.23	5.72	-0.51	2.17
ILMN_1675857	COL4A6	collagen, type IV, alpha 6 (COL4A6), transcript variant A, mRNA.	NM_001847.2	7.32	7.84	0.52	2.16
ILMN_1727361	LEMD3	LEM domain containing 3 (LEMD3), mRNA.	NM_014319.3	8.97	9.51	0.53	2.15
ILMN_1753370	ABTB2	ankyrin repeat and BTB (POZ) domain containing 2 (ABTB2), mRNA.	NM_145804.1	6.28	6.8	0.51	2.15
ILMN_1668498	CWF19L2	CWF19-like 2, cell cycle control (S. pombe) (CWF19L2), mRNA.	NM_152434.1	9.57	10.09	0.52	2.15
ILMN_2349138	CDC42SE1	CDC42 small effector 1 (CDC42SE1), transcript variant 1, mRNA.	NM_001038707.1	8.53	9.04	0.51	2.14
ILMN_2151114	VSNL1	visinin-like 1 (VSNL1), mRNA.	NM_003385.4	9.46	8.86	-0.6	2.13
ILMN_1700257	C4orf32	chromosome 4 open reading frame 32 (C4orf32), mRNA.	NM_152400.1	6.31	6.84	0.52	2.12
ILMN_1660858	RIN1	Ras and Rab interactor 1 (RIN1), mRNA.	NM_004292.2	7.64	7.04	-0.6	2.11
ILMN_1761540	SEMA3F	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3F (SEMA3F), mRNA.	NM_004186.2	7.8	8.32	0.52	2.07
ILMN_1803799	LOC649555	PREDICTED: similar to eukaryotic translation initiation factor 4E, transcript variant 2 (LOC649555), mRNA.	XM_945579.1	7.48	8.26	0.78	2.05
ILMN_1674522	HIGD1A	HIG1 domain family, member 1A (HIGD1A), transcript variant 1, mRNA.	NM_001099668.1	10	10.73	0.74	2.05
ILMN_1694327	LOC285176	PREDICTED: similar to ribosomal protein L10 (LOC285176), mRNA.	XM_937850.1	7.75	8.25	0.5	2.04
ILMN_1659058	PPP1R10	protein phosphatase 1, regulatory (inhibitor) subunit 10 (PPP1R10), mRNA.	NM_002714.2	7.96	8.5	0.55	2.04
ILMN_1676099	SPON2	spondin 2, extracellular matrix protein (SPON2), mRNA.	NM_012445.1	7.86	7.3	-0.55	2.02