

Table 2. Genes up-regulated in TNF- α -stimulated control HMEC-1/empty vector and down-regulated in stimulated HMEC-1/TD I κ B α

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α .			HMEC-1/I κ B α +TNF- α vs HMEC-1/empty+TNF- α .		
				*SLR	sd	Fold	*SLR	sd	Fold
201762_s_a	proteasome (prosome, macropain) activator subunit 2 (PA28 beta)	PSME2	NM_002818.1	1,12	0,14	2,2	-1,18	0,09	2,3
202023_at	ephrin-A1	EFNA1	NM_004428.1	1,64	0,23	3,1	-1,78	0,27	3,4
202376_at	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3	SERPINA3	NM_001083.2	2,09	0,56	4,3	-2,65	0,88	6,3
202531_at	interferon regulatory factor 1	IRF1	NM_002198.1	1,36	0,13	2,6	-1,63	0,21	3,1
202659_at	proteasome (prosome, macropain) subunit, beta type, 10	PSMB10	NM_002801.1	1,67	0,34	3,2	-1,7	0,17	3,2
203045_at	ninjurin 1	NINJ1	NM_004148.1	1,19	0,41	2,3	-1,39	0,33	2,6
203821_at	diphtheria toxin receptor (heparin-binding epidermal growth factor-like growth factor)	DTR ¹	NM_001945.1	1,32	0,23	2,5	-1,22	0,1	2,3
204470_at	chemokine (C-X-C motif) ligand 1	CXCL1	NM_001511.1	1,72	0,19	3,3	-3,88	0,14	14,7
204580_at	matrix metalloproteinase 12 (macrophage elastase)	MMP12	NM_002426.1	1,65	0,15	3,1	-1,62	0,19	3,1
205180_s_at	ta disintegrin and metalloproteinase domain 8	ADAM8	NM_001109.1	2,64	0,38	6,2	-3,24	0,64	9,4
205207_at	interleukin 6 (interferon, beta 2)	IL6	NM_000600.1	1,68	0,19	3,2	-2,6	0,13	6,1
205576_at	serine (or cysteine) proteinase inhibitor, clade D (heparin cofactor), member 1	SERPIND1	NM_000185.2	1,76	1,12	3,4	-1,48	0,26	2,8
205680_at	matrix metalloproteinase 10 (stromelysin 2)	MMP10	NM_002425.1	3,27	0,11	9,6	-1,84	0,33	3,6
207030_s_at	cysteine and glycine-rich protein 2	CSRP2	NM_001321.1	1,21	0,26	2,3	-1,39	0,28	2,6
207442_at	colony stimulating factor 3 (granulocyte)	CSF3	NM_000759.1	2,29	0,46	4,9	-3,87	0,6	14,6
208394_x_at	endothelial cell-specific molecule 1	ESM1	NM_007036.2	1,22	0,17	2,3	-1,35	0,21	2,5
209099_x_at	jagged 1 (Alagille syndrome)	JAG1	U73936.1	1,28	0,13	2,4	-1,09	0,1	2,1
210118_s_at	interleukin 1, alpha	IL1A	M15329.1	1,21	0,28	2,3	-2,64	1,02	6,2
210218_s_at	nuclear antigen Sp100	SP100	U36501.1	1,2	0,39	2,3	-1,52	0,26	2,9
210260_s_at	tumor necrosis factor, alpha-induced protein 8	TNFAIP8	BC005352.1	1,54	0,33	2,9	-1,39	0,24	2,6
210689_at	claudin 14	CLDN14	AF314090.1	2,2	0,35	4,6	-1,61	0,21	3,1
211075_s_at	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)	CD47 ¹	Z25521.1	1,19	0,21	2,3	-1,58	0,19	3,0
211844_s_at	neuropilin 2	NRP2	AF022859.1	1,73	0,74	3,3	-1,75	0,5	3,4
218541_s_at	chromosome 8 open reading frame 4	C8orf4	NM_020130.1	1,64	0,29	3,1	-1,7	0,33	3,2
218627_at	hypothetical protein FLJ11259	FLJ11259	NM_018370.1	1,23	0,08	2,3	-1,64	0,1	3,1
218834_s_at	heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) binding protein 1	HSPA5BP1	NM_017870.1	1,6	0,36	3,0	-2,36	0,35	5,1
219584_at	phospholipase A1 member A	PLA1A	NM_015900.1	2,33	0,76	5,0	-3,77	0,76	13,6

(Comparison HMEC-1/empty vector +TNF-a vs HMEC-1/ empty vector -TNF-a (Increase) and HMEC-1/I κ B α +TNF-a vs HMEC-1/empty vector + TNF-a (Decrease) less HMEC-1/IKK2 -TNF-a vs HMEC-1/empty vector - TNF-a (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit on the genechip

Table 3. Genes up-regulated in TNF- α -stimulated control HMEC-1/empty vector and in unstimulated HMEC-1/CA IKK2.

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α		
				*SLR	sd	Fold	*SLR	sd	Fold
201502_s_at	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	NFKBIA	A1078167	2,05	0,39	4,1	1,61	0,32	3,1
210002_at	GATA binding protein 6	GATA6	D87811.1	2,17	0,99	4,5	2,64	0,9	6,2

(Comparison HMEC-/empty vector +TNF- α vs HMEC-1/ empty vector -TNF- α (Increase) and HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector - TNF- α (Increase) less HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

Table 4. Genes up-regulated in unstimulated HMEC-1/CA IKK2 and down-regulated in TNF- α -stimulated HMEC-1/TD I κ B α .

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α			HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α		
				*SLR	sd	Fold	*SLR	sd	Fold
202145_at	lymphocyte antigen 6 complex, locus E	LY6E	NM_002346.1	-2,14	0,46	4,4	2,48	0,51	5,6
203281_s_at	ubiquitin-activating enzyme E1-like	UBE1L	NM_003335.1	-1,14	0,3	2,2	1,59	0,16	3,0
204415_at	interferon, alpha-inducible protein (clone IFI-6-16)	GIP3	NM_022873.1	-1,75	0,61	3,4	3,3	0,94	9,8
206082_at	HLA complex P5	HCP5	NM_006674.1	-2,37	1,09	5,2	1,83	0,72	3,6
206133_at	XIAP associated factor-1	HSXIAPAF1	NM_017523.1	-2,32	0,99	5,0	3,52	0,69	11,5
206503_x_at	promyelocytic leukemia	PML	NM_002675.1	-1,3	0,18	2,5	2,29	1,51	4,9
208747_s_at	complement component 1, s subcomponent	C1S	M18767.1	-1,87	0,44	3,7	4,62	0,4	24,6
209040_s_at	proteasome (prosome, macropain) subunit, beta type, 3 (large multifunctional protease 7)	PSMB8	U17496.1	-1,79	0,41	3,5	1,29	0,17	2,4
209124_at	myeloid differentiation primary response gene (88)	MYD88	U70451.1	-1,21	0,11	2,3	1,13	0,09	2,2
212067_s_at	complement component 1, r subcomponent	C1R	AL573058	-2,13	1,19	4,4	2,7	0,57	6,5
213524_s_at	putative lymphocyte G0/G1 switch gene	G0S2	NM_015714.1	-1,51	0,5	2,8	1,35	0,29	2,5
217436_x_at	CDNA clone MGC:71446 IMAGE:5420082, complete cds	M80469		-1,53	0,11	2,9	1,35	0,32	2,5
217502_at	interferon-induced protein with tetratricopeptide repeats 2	IFIT2	BE888744	-1,31	0,1	2,5	1,42	0,17	2,7
218182_s_at	claudin 1	CLDN1	NM_021101.1	-2,72	1,1	6,6	1,73	0,98	3,3
221432_s_at	solute carrier family 25, member 28	SLC25A28	NM_031212.1	-1,26	0,12	2,4	1,54	0,34	2,9
221903_s_at	cylindromatosis (turban tumor syndrome)	CYLD	BE046443	-1,1	0,11	2,1	1,36	0,2	2,6
53720_at	hypothetical protein FLJ11286	FLJ11286	AI862559	-1,33	0,14	2,5	1,16	0,2	2,2

(Comparison HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Decrease) and HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector -TNF- α (Increase) less HMEC-/empty vector +TNF- α vs HMEC-1/ empty vector -TNF- α (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with multiple hits on the genechip.

Table 5. Genes up-regulated in TNF- α -stimulated control HMEC-1/empty vector.

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/empty +TNF vs HMEC-1/empty -TNF		
				*SLR	sd	Fold
201626_at	insulin induced gene 1	INSIG1	BG292233	1,35	0,45	2,5
202843_at	Dnaj (Hsp40) homolog, subfamily B, member 9	DNAJB9	NM_012328	1,22	0,23	2,3
208296_x_at	tumor necrosis factor, alpha-induced protein 8	TNFAIP8	NM_014350	1,29	0,27	2,4
210310_s_at	fibroblast growth factor 5	FGF5	AB016517.1	1,46	0,47	2,8
214130_s_at	phosphodiesterase 4D interacting protein (myomegalin)	PDE4DIP	AI821791	1,08	0,24	2,1
221085_at	tumor necrosis factor (ligand) superfamily, member 15	TNFSF15	NM_005118	1,62	0,54	3,1

(Comparison HMEC-/empty vector +TNF- α vs HMEC-1/ empty vector -TNF- α (Increase) less HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector - TNF- α (Increase) less HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

Table 6. Genes constitutively up-regulated in unstimulated HMEC-1/CA IKK2 compared to unstimulated control cells.

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α		
				*SLR	sd	Fold
200923_at	lectin, galactoside-binding, soluble, 3 binding protein	LGALS3BP	NM_005567.2	1,49	0,39	2,8
201295_s_at	WD repeat and SOCS box-containing 1	WSB1	BF111821	1,16	0,32	2,2
203037_s_at	metastasis suppressor 1	MTSS1	NM_014751.1	1,26	0,29	2,4
203729_at	epithelial membrane protein 3	EMP3	NM_001425.1	1,57	0,23	3,0
203789_s_at	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3C	SEMA3C	NM_006379.1	1,57	0,35	3,0
204821_at	butyrophilin, subfamily 3, member A3	BTN3A3	NM_006994.2	1,37	0,28	2,6
204838_s_at	endothelial cell growth factor 1 (platelet-derived)	ECGF1	NM_001953.2	1,57	0,31	3,0
205114_s_at	chemokine (C-C motif) ligand 3	CCL3	NM_002983.1	2,66	1,37	6,3
205205_at	v-rel reticuloendotheliosis viral oncogene homolog B, nuclear factor of kappa light polypeptide gene enhancer in B-cells	RELB	NM_006509.1	1,62	0,37	3,1
205239_at	amphiregulin (schwannoma-derived growth factor)	AREG	NM_001657.1	1,24	0,19	2,4
205659_at	histone deacetylase 9	HDAC9	NM_014707.1	1,75	0,63	3,4
206271_at	toll-like receptor 3	TLR3	NM_003265.1	1,18	0,18	2,3
207485_x_at	butyrophilin, subfamily 3, member A1	BTN3A1	NM_007048.1	1,72	0,61	3,3
207535_s_at	nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	NFKB2	NM_002502.1	2,82	1,98	7,1
207536_s_at	tumor necrosis factor receptor superfamily, member 9	TNFRSF9	NM_001561.2	1,66	0,47	3,2
207626_s_at	solute carrier family 7 (cationic amino acid transporter, y+ system), member 2	SLC7A2	NM_003046.1	3,52	1,35	11,5
209006_s_at	NPD014 protein	NPD014	AF247168.1	1,51	0,38	2,8
209446_s_at	hypothetical protein FLJ10803	FLJ10803	BC001743.1	2,05	1,13	4,1
209619_at	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)	CD74	K01144.1	2,28	0,98	4,9
210425_x_at	golgin-67	GOLGIN-67	AF164622.1	1,11	0,19	2,2
210705_s_at	tripartite motif-containing 5	TRIM5	AF220028.1	1,09	0,15	2,1
210794_s_at	maternally expressed 3	MEG3	AF119863.1	1,33	0,13	2,5
211027_s_at	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta	IKKKB	BC006231.1	4,84	1,61	28,6
213139_at	snail homolog 2 (Drosophila)	SNAI2	AI572079	1,47	0,3	2,8
213418_at	heat shock 70kDa protein 6 (HSP70E)	HSPA6	NM_002155.1	2,24	0,37	4,7
213517_at	poly(rC) binding protein 2	PCBP2	AW103422	1,28	0,37	2,4
213865_at	discoidin, CUB and LCCL domain containing 2	DCBLD2	AI378788	2,35	0,94	5,1
214753_at	phosphonofomate immuno-associated protein 5	PFAAP5	AW084068	2,1	0,58	4,3
216913_s_at	KIAA0690	KIAA0690	AK021460.1	1,94	0,95	3,8
217388_s_at	kynureninase (L-kynurenine hydrolase)	KYNU	D55639.1	4,52	1,25	22,9
219716_at	apolipoprotein L, 6	APOL6	NM_030641.1	1,31	0,14	2,5
219759_at	leukocyte-derived arginine aminopeptidase	LRAP	NM_022350.1	1,54	0,56	2,9
220230_s_at	cytochrome b5 reductase b5R.2	CYB5R2	NM_016229.1	1,58	0,54	3,0
220518_at	target of Nesh-SH3	TARSH	NM_024801.1	2,07	0,48	4,2
221009_s_at	angiopoietin-like 4	ANGPTL4	NM_016109.1	1,42	0,24	2,7
221766_s_at	chromosome 6 open reading frame 37	C6orf37	AW246673	1,31	0,27	2,5
221854_at	plakophilin 1 (ectodermal dysplasia/skin fragility syndrome)	PKP1	AI378979	2,36	0,47	5,1

(Comparison HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector -TNF- α (Increase) less HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Increase) less HMEC-1/IkBa +TNF- α vs HMEC-1/empty +TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit on the genechip

Table 7. Genes down-regulated in TNF- α stimulated HMEC-1/TD IkB α cells compared to stimulated control HMEC-1/empty vector cells.

Probe Set ID	Gene Title	Gene Symbol	Acc No.	HMEC-1/IkB α +TNF- α vs HMEC-1/empty +TNF- α		
				*SLR	sd	Fold
200814_at	proteasome (prosome, macropain) activator subunit 1 (PA28 alpha)	PSME1	NM_006263.1	-1,09	0,17	2,1
201170_s_at	basic helix-loop-helix domain containing, class B, 2	BHLHB2	NM_003670.1	-1,31	0,21	2,5
201329_s_at	v-ets erythroblastosis virus E26 oncogene homolog 2 (avian)	ETS2	NM_005239.1	-1,26	0,18	2,4
201473_at	jun B proto-oncogene	JUNB	NM_002229.1	-1,64	0,61	3,1
201489_at	peptidylprolyl isomerase F (cyclophilin F)	PIPF	BC005020.1	-1,07	0,12	2,1
201939_at	polo-like kinase 2 (Drosophila)	PLK2	NM_006622.1	-1,49	0,19	2,8
202074_s_at	optineurin	OPTN	NM_021980.1	-1,39	0,24	2,6
202076_at	baculoviral IAP repeat-containing 2	BIRC2	NM_001166.2	-1,13	0,15	2,2
202149_at	neural precursor cell expressed, developmentally down-regulated 9	NEDD9	AL136139	-1,47	0,33	2,8
202181_at	KIAA0247	KIAA0247	NM_014734.1	-1,17	0,14	2,3
202330_s_at	uracil-DNA glycosylase	UNG	NM_003362.1	-1,07	0,17	2,1
202555_s_at	myosin, light polypeptide kinase	MYLK	NM_005965.1	-1,37	0,19	2,6
202672_s_at	activating transcription factor 3	ATF3	NM_001674.1	-1,49	0,1	2,8
202847_at	phosphoenolpyruvate carboxykinase 2 (mitochondrial)	PCK2	NM_004563.1	-1,26	0,26	2,4
203438_at	stanniocalcin 2	STC2	A1435828	-1,29	0,33	2,4
203632_s_at	G protein-coupled receptor, family C, group 5, member B	GPRC5B	NM_016235.1	-1,68	0,1	3,2
203879_at	phosphoinositide-3-kinase, catalytic, delta polypeptide	PIK3CD	U86453.1	-1,11	0,14	2,2
203964_at	N-myc (and STAT) interactor	NMI	NM_004688.1	-1,2	0,23	2,3
204702_s_at	nuclear factor (erythroid-derived 2)-like 3	NFE2L3	NM_004289.3	-1,39	0,18	2,6
204715_at	pannexin 1	PANX1	NM_015368.1	-1,24	0,14	2,4
204823_at	neuron navigator 3	NAV3	NM_014903.1	-1,53	0,19	2,9
204933_s_at	tumor necrosis factor receptor superfamily, member 11b (osteoprotegerin)	TNFRSF11B	NM_002546.1	-2,63	0,59	6,2
205047_s_at	asparagine synthetase	ASNS	NM_001673.1	-1,53	0,41	2,9
205146_x_at	amyloid beta (A4) precursor protein-binding, family A, member 3 (X11-like 2)	APBA3	NM_004886.1	-2,26	0,87	4,8
205288_at	CDC14 cell division cycle 14 homolog A (S. cerevisiae)	CDC14A	NM_003672.1	-1,16	0,28	2,2
205398_s_at	SMAD, mothers against DPP homolog 3 (Drosophila)	SMAD3	NM_005902.1	-1,15	0,13	2,2
205569_at	lysosomal-associated membrane protein 3	LAMP3	NM_014398.1	-2,46	0,18	5,5
206290_s_at	regulator of G-protein signalling 7	RGS7	NM_002924.1	-1,35	0,43	2,5
207843_x_at	cytochrome b-5	CYB5	NM_001914.1	-1,28	0,16	2,4
208829_at	TAP binding protein (tapasin)	TAPBP	AF029750.1	-1,86	0,21	3,6
209074_s_at	TU3A protein	TU3A	AL050264.1	-2,01	1,03	4,0
209239_at	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (p105)	NFKB1	M55643.1	-1,24	0,12	2,4
209897_s_at	slit homolog 2 (Drosophila)	SLIT2	AF055585.1	-1,46	0,18	2,8
211126_s_at	cysteine and glycine-rich protein 2	CSRFP2	U46006.1	-1,22	0,2	2,3
211529_x_at	HLA-G histocompatibility antigen, class I, G	HLA-G	M90684.1	-1,55	0,2	2,9
211981_at	collagen, type IV, alpha 1	COL4A1	NM_001845.1	-1,63	0,19	3,1
213294_at	hypothetical protein FLJ38348	FLJ38348	AV755522	-1,16	0,12	2,2
214448_x_at	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, beta	NFKBIB	NM_002503.1	-1,63	0,74	3,1
214632_at	neuropilin 2	NRP2	AA295257	-1,21	0,22	2,3
215933_s_at	hematopoietically expressed homeobox	HHEX	Z21533.1	-1,24	0,1	2,4
216020_at	MRNA; cDNA DKFZp586D0522 (from clone DKFZp586D0522)		AL080107.1	-3,41	1,02	10,6
218284_at	DKFZP586N0721 protein	DKFZP586N0721	NM_015400.1	-1,11	0,12	2,2
218543_s_at	zinc finger CCCH type domain containing 1	ZC3HDC1	NM_022750.1	-1,35	0,14	2,5
218810_at	hypothetical protein FLJ23231	FLJ23231	NM_025079.1	-2,26	1,38	4,8
218995_s_at	endothelin 1	EDN1	NM_001955.1	-1,49	0,21	2,8
219270_at	hypothetical protein MGC4504	MGC4504	NM_024111.1	-1,38	0,31	2,6
221059_s_at	carbohydrate (N-acetylglucosamine 6-O) sulfotransferase 6	CHST6	NM_021615.1	-1,12	0,1	2,2
222062_at	interleukin 27 receptor, alpha	IL27RA	A1983115	-2,1	0,36	4,3
36564_at	IBR domain containing 3	IBRDC3	W27419	-1,38	0,34	2,6

(Comparison HMEC-1/IkB α +TNF- α vs HMEC-1/empty +TNF- α (Decrease) less HMEC-1/IKK2 -TNF- α vs

HMEC-1/empty vector -TNF- α (Increase) less HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit in the genechip.

Table 8. IKK/NF- κ B-dependent down-regulated target genes.

Probe ID	Gene	Symbol	Acc. No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/ κ B α +TNF- α vs HMEC-1/empty +TNF- α		
				*SLR	sd	Fold	*SLR	sd	Fold	*SLR	sd	Fold
203407_at	periplakin	PPL	NM_002705.1	-2,87	0,83	7	-1,54	0,26	3	2,58	0,82	6
203799_at	type 1 transmembrane C-type lectin receptor DCL-1	DCL-1	NM_014880.1	-1,42	0,19	3	-1,44	0,11	3	1,09	0,2	2
203917_at	coxsackie virus and adenovirus receptor	CXADR	NM_001338.1	-1,17	0,28	2	-1,74	0,28	3	2,1	0,21	4
204072_s_at	hypothetical protein CG003	13CDNA73	¹ NM_023037.1	-1,4	0,22	3	-1,29	0,18	2	1,19	0,23	2
207761_s_at	DKFZP586A0522 protein	DKFZP586A0522	D13889.1	-2,19	0,14	5	-1,56	0,11	3	1,34	0,19	3
209687_at	chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)	CXCL12	U19495.1	-2,13	0,98	4	-1,31	0,14	2	2,26	1,09	5
212096_s_at	mitochondrial tumor suppressor gene 1	MTSG1	AL096842.1	-1,07	0,07	2	-1,34	0,1	3	1,25	0,05	2
212830_at	EGF-like-domain, multiple 5	EGFL5	W68084	-1,17	0,17	2	-1,2	0,13	2	1,19	0,09	2
213436_at	cannabinoid receptor 1 (brain)	CNR1	U73304	-1,31	0,33	2	-1,65	0,36	3	1,24	0,21	2
219230_at	hypothetical protein FLJ10970	FLJ10970	NM_018286.1	-1,72	0,25	3	-1,4	0,23	3	2,07	0,25	4

(Comparison HMEC-/empty vector +TNF- α vs HMEC-1/ empty vector -TNF- α (Decrease) and HMEC-1/ κ B α -TNF- α vs HMEC-1/empty +TNF- α (Increase) and HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector - TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit on the genechip.

Table 9. Genes down-regulated in TNF- α -stimulated control HMEC-1/empty vector and up-regulated in stimulated HMEC-1/TD I κ B α .

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α		
				*SLR	sd	Fold	*SLR	sd	Fold
202016_at	mesoderm specific transcript homolog (mouse)	MEST	NM_002402.1	-1,35	0,13	2,5	1,27	0,1	2,4
202342_s_at	tripartite motif-containing 2	TRIM2	NM_015271.1	-1,37	0,5	2,6	1,28	0,31	2,4
203716_s_at	dipeptidylpeptidase 4 (CD26, adenosine deaminase complexing protein 2)	DPP4	M80536.1	-2,14	0,95	4,4	1,67	0,96	3,2
203803_at	prenylcysteine oxidase 1	PCYOX1	N45309	-1,46	0,31	2,8	1,29	0,11	2,4
203887_s_at	thrombomodulin	THBD	NM_000361.1	-1,32	0,22	2,5	1,64	0,18	3,1
204014_at	dual specificity phosphatase 4	DUSP4	NM_001394.2	-2,14	0,48	4,4	1,96	0,26	3,9
205529_s_at	core-binding factor, runt domain, alpha subunit 2, translocated to, 1; cyclin D-related	CBFA2T1	NM_004349.1	-1,38	0,13	2,6	1,62	0,3	3,1
212992_at	chromosome 14 open reading frame 78	C14orf78	A1935123	-1,72	0,18	3,3	1,8	0,11	3,5

(Comparison HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Decrease) and HMEC-1/I κ B α +TNF- α vs HMEC-1/empty vector +TNF- α (Increase) less HMEC-1/I κ B α -TNF- α vs HMEC-1/empty vector -TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit on the genechip.

Table 10. Genes down-regulated in TNF- α -stimulated control HMEC-1/empty vector and in unstimulated HMEC-1/CA IKK2.

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α		
				*SLR	sd	Fold	*SLR	sd	Fold
201904_s_at	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase-like	CTDSPL	BF031714	-1,22	0,17	2,3	-1,27	0,14	2,4
204818_at	hydroxysteroid (17-beta) dehydrogenase 2	HSD17B2	NM_002153.1	-2,25	1,35	4,8	-1,49	0,3	2,8
205612_at	multimerin 1	MMRN1	NM_007351.1	-1,52	0,28	2,9	-2,73	0,34	6,6
212224_at	aldehyde dehydrogenase 1 family, member A1	ALDH1A1	NM_000689.1	-1,84	0,3	3,6	-1,84	0,33	3,6
219436_s_at	endomucin	EMCN	NM_016242.1	-1,72	0,36	3,3	-1,54	0,29	2,9
221911_at	hypothetical protein LOC221810	LOC221810	BE881590	-1,4	0,47	2,6	-2,78	1,22	6,9

(Comparison HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Decrease) and HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector -TNF- α (Decrease) less HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

Table 11. Genes down-regulated in unstimulated HMEC-1/CA IKK2 and up-regulated in TNF- α -stimulated HMEC-1/TD I κ B α .

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α			HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α		
				SLR	sd	Fold	*SLR	sd	Fold
204931_at	transcription factor 21	TCF21	NM_003206.1	-2,86	0,56	7,3	1,57	0,2	3,0
217028_at	chemokine (C-X-C motif) receptor 4	CXCR4	AJ224869	-2,3	0,26	4,9	1,31	0,07	2,5
218723_s_at	response gene to complement 32	RGC32	NM_014059.1	-1,52	0,31	2,9	1,52	0,31	2,9
202202_s_at	latunin, alpha 4	LAMA4	NM_002290.2	-1,37	0,22	2,6	1,6	0,58	3,0

(Comparison HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Increase) and HMEC-1/IKK2 -TNF- α vs

HMEC-1/empty vector -TNF- α (Decrease) less HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

Table 12. Genes down-regulated in TNF- α -stimulated control HMEC-1.

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/empty +TNF- α vs HMEC-1/empty -TNF- α .		
				* SLR	sd	Fold
200965_s_at	actin binding LIM protein 1	ABLIM1	NM_006720.1	-1,16	0,28	2,2
201508_at	insulin-like growth factor binding protein 4	IGFBP4	NM_001552.1	-1,33	0,48	2,5
203780_at	epithelial V-like antigen 1	EVA1	AF275945.1	-1,11	0,3	2,2
204048_s_at	phosphatase and actin regulator 2	PHACTR2	AA551142	-1,25	0,19	2,4
204159_at	cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)	CDKN2C	NM_001262.1	-1,14	0,2	2,2
205399_at	doublecortin and CaM kinase-like 1	DCAMKL1	NM_004734.1	-2,04	0,36	4,1
207164_s_at	zinc finger protein 238	ZNF238	NM_006352.1	-2,2	1,36	4,6
208937_s_at	inhibitor of DNA binding 1, dominant negative helix-loop-helix protein	ID1	D13889.1	-1,47	0,48	2,8
212336_at	erythrocyte membrane protein band 4.1-like 1	EPB41L1	AA912711	-1,32	0,36	2,5
214021_x_at	integrin, beta 5	ITGB5	AI335208	-1,3	0,33	2,5
216361_s_at	MYST histone acetyltransferase (monocytic leukemia) 3	MYST3	AJ251844.1	-1,7	0,6	3,2
217974_at	transmembrane 7 superfamily member 3	TM7SF3	NM_016551.1	-1,34	0,42	2,5
219563_at	chromosome 14 open reading frame 139	C14orf139	NM_024633.1	-1,22	0,22	2,3

(Comparison HMEC-/empty vector +TNF- α vs HMEC-1/ empty vector -TNF- α (Decrease) less HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector - TNF- α (Decrease) less HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

Table 13. Genes constitutively down-regulated in unstimulated HMEC-1/CA IKK2 compared to unstimulated control HMEC-1/empty vector.

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/IKK2 -TNF- α vs HMEC-1/empty -TNF- α		
				*SLR	sd	Fold
201261_x_at	biglycan	BGN	BC002416.1	-1,17	0,09	2,3
201694_s_at	early growth response 1	EGR1	NM_001964.1	-1,88	0,29	3,7
201810_s_at	SH3-domain binding protein 5 (BTK-associated)	SH3BP5	AL562152	-1,16	0,12	2,2
201843_s_at	EGF-containing fibulin-like extracellular matrix protein 1	EFEMP1	NM_004105.2	-1,38	0,19	2,6
202036_s_at	secreted frizzled-related protein 1	SFRP1	AF017987.1	-1,33	0,28	2,5
202207_at	ADP-ribosylation factor-like 7	ARL7	BG435404	-1,24	0,14	2,4
202291_s_at	matrix Gla protein	MGP	NM_000900.1	-1,56	0,19	2,9
203099_s_at	chromodomain protein, Y-like	CDYL	AF081258.1	-1,78	0,56	3,4
203395_s_at	hairy and enhancer of split 1, (Drosophila)	HES1	NM_005524.2	-2,75	0,25	6,7
203435_s_at	membrane metallo-endopeptidase (neutral endopeptidase, enkephalinase, CALLA, CD10)	MME	NM_007287.1	-1,37	0,3	2,6
203680_at	protein kinase, cAMP-dependent, regulatory, type II, beta	PRKAR2B	NM_002736.1	-1,44	0,17	2,7
204466_s_at	synuclein, alpha (non A4 component of amyloid precursor)	SNCA	BG260394	-1,18	0,11	2,3
204955_at	sushi-repeat-containing protein, X-linked	SRPX	NM_006307.1	-2,4	0,13	5,3
205259_at	nuclear receptor subfamily 3, group C, member 2	NR3C2	NM_000901.1	-1,27	0,22	2,4
205547_s_at	transgelin	TAGLN	NM_003186.2	-2,05	0,37	4,1
205572_at	angiopoietin 2	ANGPT2	NM_001147.1	-2,59	1,58	6,0
205594_at	KIAA0924 protein	KIAA0924	NM_014897.1	-1,22	0,27	2,3
207808_s_at	protein S (alpha)	PROS1	NM_000313.1	-1,24	0,14	2,4
208891_at	dual specificity phosphatase 6	DUSP6	BC003143.1	-1,33	0,19	2,5
209082_s_at	collagen, type XVIII, alpha 1	COL18A1	AF018081.1	-1,27	0,17	2,4
209189_at	v-fos FBJ murine osteosarcoma viral oncogene homolog	FOS	BC004490.1	-4,15	0,61	17,8
209505_at	nuclear receptor subfamily 2, group F, member 1	NR2F1	A1951185	-1,3	0,14	2,5
209894_at	leptin receptor	LEPR	U50748.1	-1,58	0,17	3,0
212558_at	sprouty homolog 1, antagonist of FGF signaling (Drosophila)	SPRY1	BF508662	-1,48	0,26	2,8
212605_s_at	Clone 23872 mRNA sequence					
212609_s_at	serologically defined colon cancer antigen 8	SDCCAG8	AK025759.1	-1,47	0,3	2,8
213156_at	MRNA; cDNA DKFZp586B211 (from clone DKFZp586B211)		U79271.1	-1,32	0,26	2,5
213905_x_at	biglycan	BGN	BG251521	-1,41	0,21	2,7
214156_at	myosin VIIA and Rab interacting protein	MYRIP	AA845258	-1,24	0,25	2,4
215506_s_at	ras homolog gene family, member 1	ARHI	AL050090.1	-1,64	0,35	3,1
218149_s_at	zinc finger protein 395	ZNF395	AK021882.1	-2,07	0,79	4,2
219773_at	NADPH oxidase 4	NOX4	NM_017606.1	-1,36	0,34	2,6
219777_at	human immune associated nucleotide 2	HNAN2	NM_016931.1	-1,64	0,3	3,1
221031_s_at	hypothetical protein DKFZp434F0318	DKFZP434F0318	NM_024711.1	-1,31	0,18	2,5
			NM_030817.1	-1,23	0,21	2,3

(Comparison HMEC-1/IKK2 -TNF- α vs HMEC-1/empty vector -TNF- α (Decrease) less HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Decrease) less HMEC-1/I κ B α +TNF- α vs HMEC-1/empty +TNF- α (Increase)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

¹ Gene with more than one hit on the genechip.

Table 14. Genes up-regulated in TNF- α activated HMEC-1/TD $\text{I}\kappa\text{B}\alpha$ cells compared to activated control cells.

Probe Set ID	Gene Title	Gene Symbol	Acc. No.	HMEC-1/ $\text{I}\kappa\text{B}\alpha$ +TNF- α vs HMEC-1/empty +TNF- α		
				* SLR	sd	Fold
201015_s_at	junction plakoglobin	JUP	NM_021991.1	1,64	0,69	3,1
201167_x_at	Rho GDP dissociation inhibitor (GDI) alpha	ARHGDI1	D13989.1	2,19	0,56	4,6
201367_s_at	zinc finger protein 36, C3H type-like 2	ZFP36L2	A1356398	2,37	1,26	5,2
201401_s_at	adrenergic, beta, receptor kinase 1	ADRBK1	M80776.1	3,06	0,42	8,3
201668_x_at	myristoylated alanine-rich protein kinase C substrate	MARCKS	AW163148	1,93	1,11	3,8
201808_s_at	endoglin (Osler-Rendu-Weber syndrome 1)	ENG	BE732652	2,28	0,95	4,9
202046_s_at	glucocorticoid receptor DNA binding factor 1	GRLF1	NM_004491.1	1,5	0,54	2,8
202082_s_at	SEC14-like 1 (<i>S. cerevisiae</i>)	SEC14L1	AV748469	1,15	0,17	2,2
202118_s_at	copine III	CPNE3	AA541758	1,41	0,26	2,7
202156_s_at	CUG triplet repeat, RNA binding protein 2	CUGBP2	N36839	1,23	0,17	2,3
202289_s_at	transforming, acidic coiled-coil containing protein 2	TACC2	NM_006997.1	1,34	0,17	2,5
202368_s_at	translocation associated membrane protein 2	TRAM2	AI986461	1,2	0,2	2,3
202476_s_at	tubulin, gamma complex associated protein 2	TUBGCP2	BF002130	1,14	0,19	2,2
202936_s_at	SRY (sex determining region Y)-box 9 (campomelic dysplasia, autosomal sex-reversal)	SOX9	NM_000346.1	1,34	0,35	2,5
203723_at	inositol 1,4,5-trisphosphate 3-kinase B	ITPKB	NM_002221.1	1,34	0,12	2,5
203890_s_at	death-associated protein kinase 3	DAPK3	BF686824	1,54	0,59	2,9
203942_s_at	MAP/microtubule affinity-regulating kinase 2	MARK2	NM_017490.1	2,35	1,48	5,1
203980_at	fatty acid binding protein 4, adipocyte	FABP4	NM_001442.1	2,68	1,37	6,4
204035_at	secretogranin II (chromogranin C)	SCG2	NM_003469.2	2,69	0,35	6,5
204476_s_at	pyruvate carboxylase	PC	NM_022172.1	1,39	0,39	2,6
204595_s_at	stanniocalcin 1	STC1	AI300520	1,81	0,53	3,5
205095_s_at	ATPase, H+ transporting, lysosomal V0 subunit a isoform 1	ATP6V0A1	NM_005177.1	2,34	0,49	5,1
205192_at	mitogen-activated protein kinase kinase kinase 14	MAP3K14	NM_003954.1	1,19	0,11	2,3
206665_s_at	BCL2-like 1	BCL2L1	NM_001191.1	3,51	2,48	11,4
209160_at	aldo-keto reductase family 1, member C3 (3-alpha hydroxysteroid dehydrogenase, type II)	AKR1C3	AB018580.1	1,45	0,25	2,7
210457_x_at	high mobility group AT-hook 1	HMGAI	AF176039.1	1,82	0,59	3,5
211074_at			AF000381.1	1,54	0,54	2,9
211273_s_at	T-box 1	TBX1	AF012130.1	4,5	1,58	22,6
211600_at	protein tyrosine phosphatase, receptor type, O	PTPRO	U20489.1	2,4	0,37	5,3
211742_s_at	ecotropic viral integration site 2B	EVI2B	BC005926.1	1,37	0,38	2,6
212016_s_at	polypyrimidine tract binding protein 1	PTBP1	AA679988	1,88	0,83	3,7
212021_s_at	antigen identified by monoclonal antibody Ki-67	MKI67	AU132185	1,19	0,15	2,3
212062_at	ATPase, Class II, type 9A	ATP9A	AB014511.1	1,39	0,21	2,6
212291_at	homeodomain interacting protein kinase 1	HIPK1	AI393355	1,41	0,49	2,7
212574_x_at	chromosome 19 open reading frame 6	C19orf6	AC004528	3	0,61	8,0
212875_s_at	chromosome 21 open reading frame 25	C21orf25	AF001745	1,18	0,15	2,3
213248_at	hypothetical protein LOC221362	LOC221362	AL577024	1,48	0,12	2,8
214040_s_at	gelsolin (amyloidosis, Finnish type)	GSN	E675337	2,89	1,27	7,4
214216_s_at	KIAA0217	KIAA0217	AW628686	3,06	1,24	8,3
214251_s_at	nuclear mitotic apparatus protein 1	NUMA1	AI337584	3,65	1,42	12,6
214336_s_at	coatomer protein complex, subunit alpha	COPA	AI621079	2,08	0,71	4,2
215058_at	hypothetical protein MGC24039	MGC24039	AU144041	1,67	0,53	3,2
215660_s_at	microtubule associated serine/threonine kinase 2	MAST2	AK025352.1	1,73	0,56	3,3
216971_s_at	plectin 1, intermediate filament binding protein 500kDa	PLEC1	Z54367	4,58	0,84	23,9
216997_x_at	transducin-like enhancer of split 4 (E(spl) homolog, <i>Drosophila</i>)	TLE4	AL358975	1,77	0,6	3,4
218660_at	dysferlin, limb girdle muscular dystrophy 2B (autosomal recessive)	DYSF	NM_003494.1	1,13	0,18	2,2
219970_at	PDZ domain protein GIPC2	GIPC2	NM_017655.1	1,72	0,26	3,3
220092_s_at	anthrax toxin receptor 1	ANTXR1	NM_018153.1	1,3	0,14	2,5
222234_s_at	hypothetical protein MGC3101	MGC3101	AK022644.1	2,38	1,2	5,2
34478_at	RAB11B, member RAS oncogene family	RAB11B	X79780	2,6	1,51	6,1

(Comparison HMEC-1/ $\text{I}\kappa\text{B}\alpha$ -TNF- α vs HMEC-1/empty +TNF- α (Increase) less HMEC-1/ $\text{I}\kappa\text{B}\alpha$ -TNF- α vs HMEC-1/empty vector - TNF- α (Decrease) less HMEC-1/empty vector +TNF- α vs HMEC-1/empty vector -TNF- α (Decrease)).

* SLR: signal log ratio (mean of three independent hybridization experiments).

1 Gene with more than one hit on the genechip.