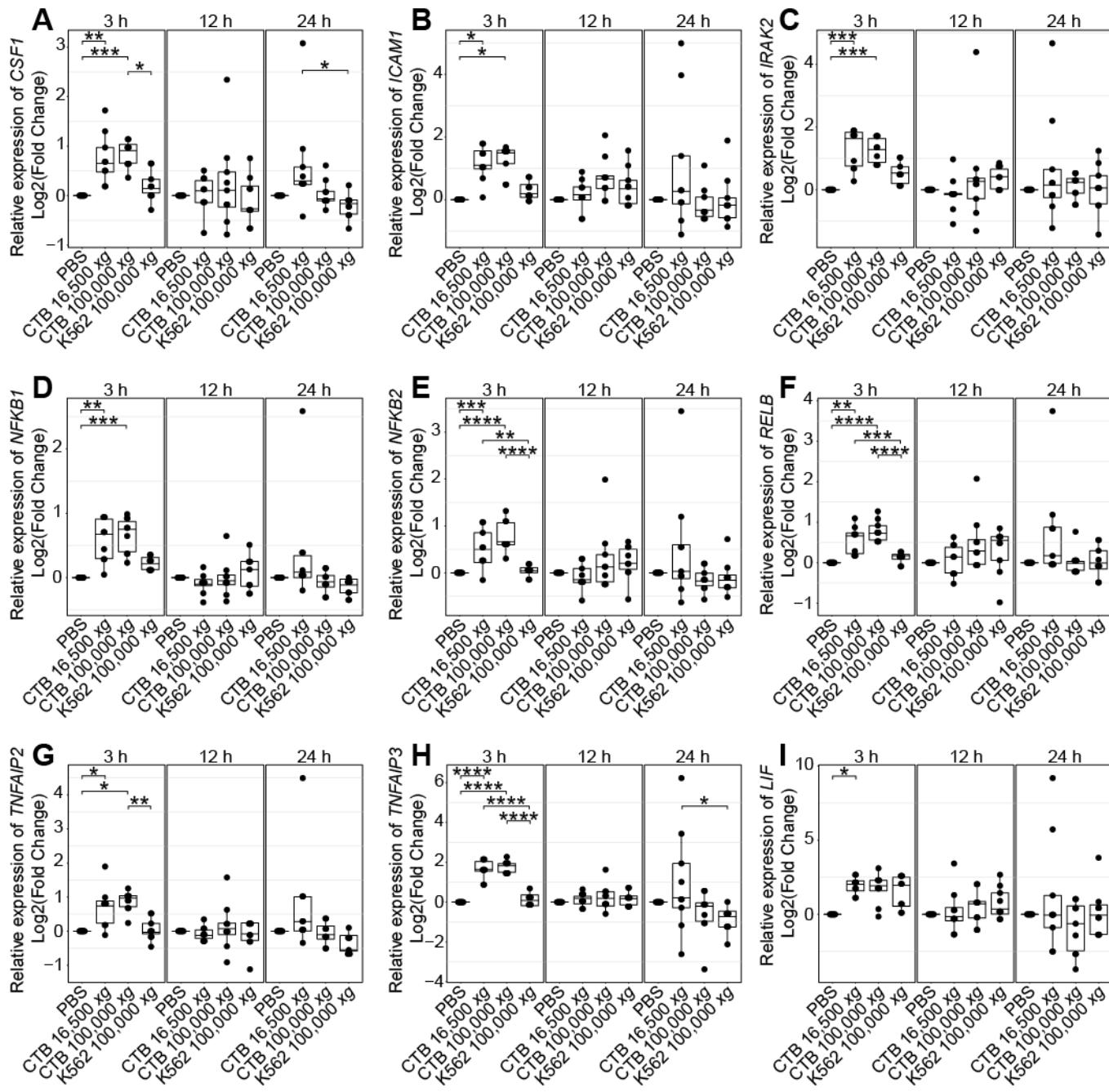
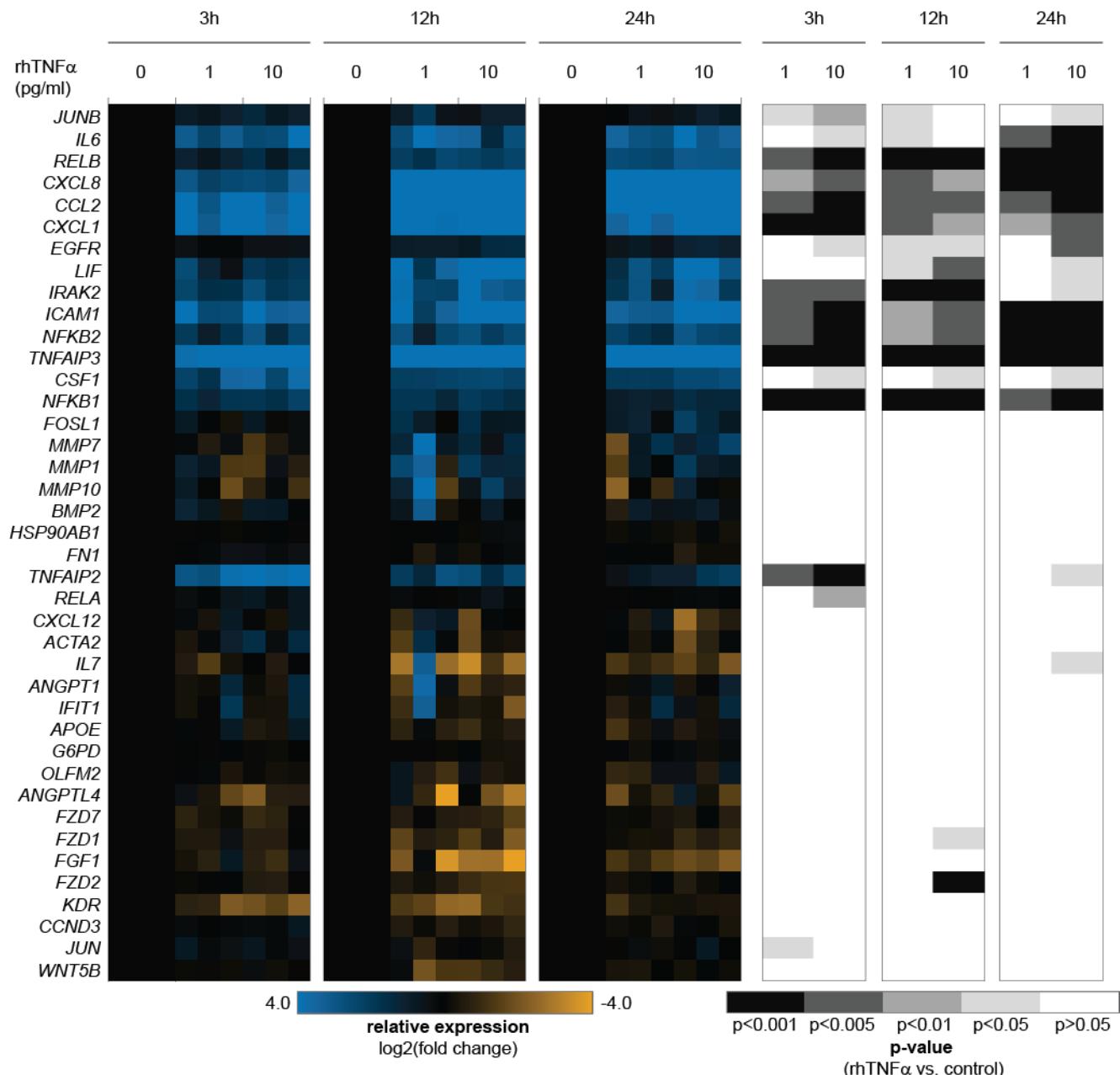


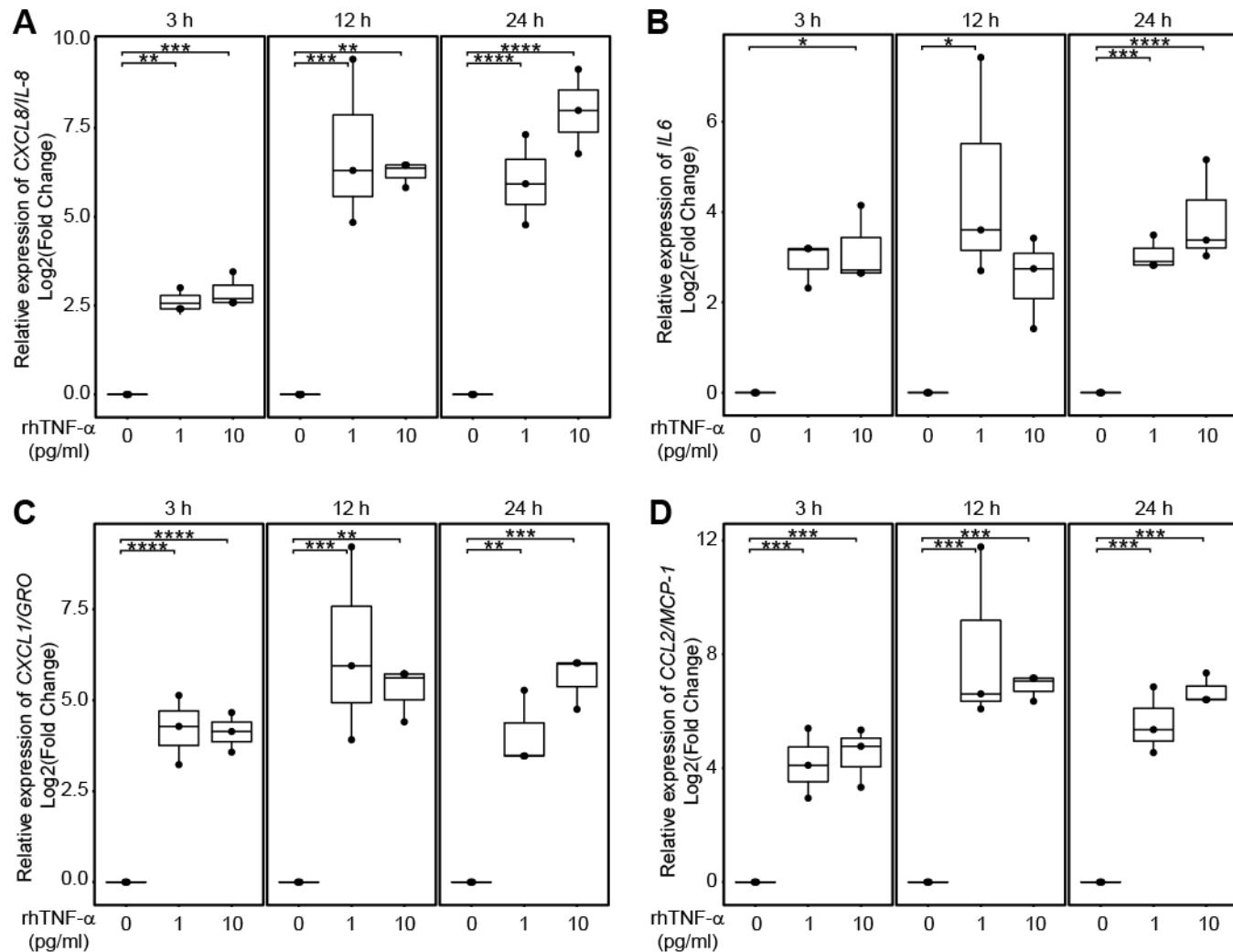
**Fig. S1. Cytotrophoblast (CTB) extracellular vesicles (EVs) lacked detectable levels of most analytes measured by cytokine array.** EVs (2 µg protein) were analyzed by a high sensitivity cytokine array. Most analytes were below the threshold of detection. In the CTB 100,000 xg pellet, IL-6 was present at ~0.2 pg/µg and MIP-3a was detected at ~1 pg/µg. n=3 biological replicates. \* p<0.05, \*\*\*\* p<0.001.



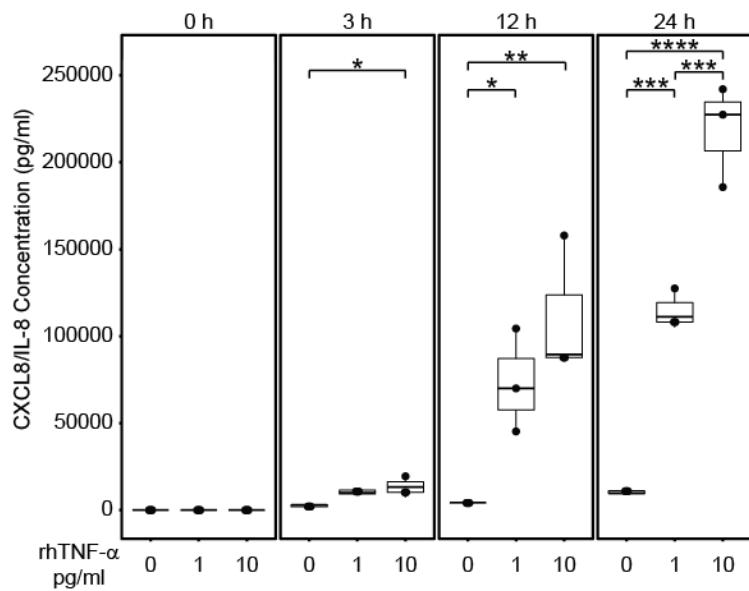
**Fig. S2. Quantification of cytотrophoblast (CTB) extracellular vesicle (EV) effects on decidualized endometrial stromal fibroblast (dESF) expression of mRNAs encoding additional NF-κB targets.** Data augment that shown in Fig. 6. n=3 biological replicates (EV batches and dESFs). \* p<0.05, \*\* p<0.01, \*\*\* p<0.005, \*\*\*\* p<0.001.



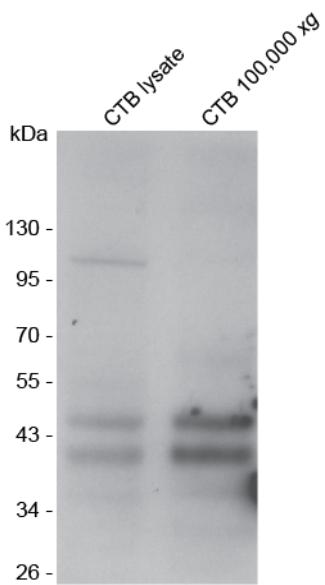
**Fig. S3. Recombinant human TNF- $\alpha$  (rhTNF- $\alpha$ ) sustained increased decidualized endometrial stromal fibroblast (dESF) expression of the mRNAs encoding NF- $\kappa$ B targets for the duration of the 24 h time course.** Heat maps of gene expression changes (left) and p-values (right) compared to the PBS control. dESFs were treated with rhTNF- $\alpha$  and high throughput qRT-PCR was performed using a Fluidigm 96.96 Dynamic Array IFC. Enhanced transcription of NF- $\kappa$ B targets was sustained over the course of the experiment. n=3 biological replicates (dESFs).



**Fig. S4. rhTNF- $\alpha$  increased decidualized endometrial stromal fibroblast (dESF) expression of mRNAs encoding CXCL8/IL-8, IL-6, CXCL1/GRO, and CCL2/MCP-1 for the duration of the 24 h time course.** Changes in gene expression were measured with a Fluidigm 96.96 Dynamic Array IFC. The addition of rhTNF- $\alpha$  (1 or 10 pg/ml) increased transcription of (A) CXCL8/IL-8, (B) IL-6, (C) CXCL1/GRO, and (D) CCL2/MCP-1 at the time points indicated. n=3 biological replicates (dESFs). \* p<0.05, \*\* p<0.01, \*\*\* p<0.005, \*\*\*\* p<0.001.



**Fig. S5. Recombinant human TNF- $\alpha$  (rhTNF- $\alpha$ ) increased decidualized endometrial stromal fibroblast (dESF) IL-8 secretion.** Over the course of the experiment (24 h), rhTNF- $\alpha$  treatment (1 or 10 pg/ml) induced dESF secretion of IL-8 in a concentration dependent manner as measured by ELISA. n=3 biological replicates (dESFs). \* p<0.05, \*\* p<0.01, \*\*\* p<0.005, \*\*\*\* p<0.001.



**Fig. S6. Immunoblot analysis showed that cytotrophoblast (CTB) lysate and the 100,000 xg fraction contained proteins of the expected molecular weight that reacted with anti-neonatal Fc receptor (FcRn). n=1.**

**Table S1. 16,500xg Extracellular Vesicle Fraction**

[Click here to Download Table S1](#)

**Table S2. 100,000xg Extracellular Vesicle Fraction**

[Click here to Download Table S2](#)

**Table S3. Antibodies for immunoblotting and immunofluorescence**

Primary Antibodies							Secondary Antibodies			
Target	Clone	Supplier	Catalog #	Host	Dilution	Antibody	Conjugate	Supplier	Dilution	
CD9	KMC8	BD Biosciences	BDB553758	rat	1:250	Donkey anti-rat	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
CK	7D3	Laboratory of S.J. Fisher	N/A	rat	1:100	Donkey anti-rat	Rhodamine	Jackson ImmunoResearch Labs, Inc.	1:100	
FN	Clone 10/ Fibronectin	BD Biosciences	610077	mouse	1:1000	Donkey anti-mouse	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
FcRn	Polyclonal	Laboratory of N.E. Simister	N/A	mouse	1:200	Donkey anti-mouse	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
HLA-G	4H84	Laboratory of S.J. Fisher	N/A	mouse	1:250	Donkey anti-mouse	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
HRS	D7T5N	Cell Signaling Technology	15087	rabbit	1:1000	Donkey anti-rabbit	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
PD-L1	E1L3N	Cell Signaling Technology	13684	rabbit	1:1000	Donkey anti-rabbit	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
PLAP	EPR6141	Millipore Sigma	MABC644	rabbit	1:750	Donkey anti-rabbit	Peroxidase	Jackson ImmunoResearch Labs, Inc.	1:5000	
TNF- $\alpha$	2C8	Abcam	ab8348	mouse	1:100	Donkey anti-mouse	FITC	Jackson ImmunoResearch Labs, Inc.	1:100	

**Table S4. qRT-PCR primers**

Target	Forward Primer	Reverse Primer
ACTA2	AAGGCCAACCGGGAGAAAA	CGCCTGGATAGCCACATACA
ANGPT1	TCCAAAGAGGCTGGAAGGAA	CCTCTGACTGGTAATGGCAAAA
ANGPTL4	TCCACTTGGGACCAGGATCA	AATGGCTGCAGGTGCCAAA
APOE	CCCAGGTACCCAGGAAC	TGTTCCCTCAGTCCGATTGTA
BMP2	ACTGTGCGCAGCTTCCA	ACTCCTCCGTGGGATAGAA
CCL2	TAGCAGCCACCTCATTCCC	CCTCTGCACTGAGATCTTCCTA
CCND3	CGACAGGCCTTGGTCAAAA	ATCATGGATGGGGGTACA
CSF1	GGAGACCTCGTGCCAAATT	TGCCTCTTAAGGTAGCACAC
CXCL1	CTTGCCTCAATCCTGCATCC	AGCCACCAGTGAGCTTCC
CXCL12	GCTGGTCCTCGTGCTGAC	GAATCGGCATGGCATCTGTA
CXCL8	ACACTGCGCAACACAGAAA	CAGTTTCCTTGGGTCCAGAC
EGFR	AGTGTAAAGAAGTGCAGAGG	TCGTAGCATTATGGAGAGTGAG
FGF1	TCTGCCTCCAGGGATTACA	CCTGTCCTTGTCCCATCC
FN1	GTGTGTGTCTGGTAATGGAAA	AGTCCCAGCAGCATGATCAA
FOSL1	ATTGAGGAGCTGCAGAAC	CCCTCCTGGCTCCTTCC
FZD1	GCTTCGTGGGCTTAACAAAC	ACGTGCCATAAACAGGTACA
FZD2	CCTTCTTCACTGTCACCACGTA	TGTAGCAGCCCCGACAGAAAA
FZD7	TCCGCACCATCATGAAACAC	GTGTAGAGCACGCTGAAGAC
G6PD	GCCGTCACCAAGAACATTCA	CTCCCGAAGGGCTTCTCC
HSP90AB1	TCCTTCGGAGTTGATCTCTA	GGGTCTGTCAGGCTCTCATA
ICAM1	CCCCTACCAGCTCCAGACC	TGCGTGTCCACCTCTAGGAC
IFIT1	AGGCTGTCCGCTTAAATCCA	TCAGCTTCCTGTCCTTCATCC
IL6	AGAGCTGTGCAGATGAGTACAA	GTTGGTCAGGGTGGTTA
IL7	ATTGAAGGTAAAGATGGCAAACA	TCATTATTCAAGGCAATTGCTACC
IRAK2	GTCTGGAGATCATCCACAGCAA	TGAGCCATTGGGTGAGCAA
JUN	AAGAACTCGGACCTCCCTCAC	TGGATTATCAGGCCTCCA
JUNB	TGGCCAGCTAAACAGAA	AGAAGCGTGTCCCTTGAC
KDR	AGTGGGCTGATGACCAAGAA	CCATGCCACTTCCAAAAGCA
LIF	CTCGGGTAAGGATGTCCTCCA	ACACGGCGATGATCTGCTTA
MMP1	CACCTTCAGTGGTGTGTTCA	GCTGGACAGGATTTGGGAA
MMP10	TGAGCCTAAGGTTGATGCTGTA	GGCATTGGGTCAAACCTCAA
MMP7	TGTATGGGAACGTGACA	ATGAGCCAGCGTGTTC
NFKB1	CTACCTGGTGCCTCTAGTGAAA	ACCTTGCTGGTCCCACATA
NFKB2	TACCTGGTGTGACCGAAC	GCCTTCACAGCCATATCGAA
OLFM2	GGCTCCTGGATGACTGACA	GGCGGCCCTTGTAAATAGCC
RELA	GCATCCAGACCAACACAAACC	AGAGCCGCACAGCATTCA
RELB	TGCTTCCGAGCCCGTCTA	CGGCCGCTTCCTGTTAA
TNFAIP2	AAGAGCCACGGCTTGACA	GTGTGCGTGAACCTCTTGAA
TNFAIP3	GAAGCTTGTGGCGCTGAAAA	CCTGAACGCCACATGTA
WNT5B	ATTGCAGCACAGCGGACAA	CTCACCGCGTGGGTGAA