

ESM TABLE 1: *Fold changes in JAK/STAT PCR Array gene expression for INS-1 cells and β TC-3 cells related to IL-12 stimulation. Table page 1*

INS-1 CELLS

Gene	Description	Fold Change
A2m	Alpha-2-macroglobulin	1.8
Aps	SH2B adaptor protein 2	3.6
Bcl2l1	Bcl2-like 1	1.9
Ccnd1	Cyclin D1	1.9
Cdkn1a	Cyclin-dependent kinase inhibitor 1A	3.1
Cebpb	CCAAT/enhancer binding protein (C/EBP), beta	1.3
Crk	V-crk sarcoma virus CT10 oncogene homolog (avian)	1.1
Crp	C-reactive protein, pentraxin-related	0.6
Csf1r	Colony stimulating factor 1 receptor	-4.0
Csf2rb	Colony stimulating factor 2 receptor, beta, low-affinity (granulocyte-macrophage)	1.2
Cxcl9	Chemokine (C-X-C motif) ligand 9	4.0
Egfr	Epidermal growth factor receptor	1.2
Epor	Erythropoietin receptor	1.2
F2	Coagulation factor II (thrombin)	2.9
F2r	Coagulation factor II (thrombin) receptor	1.1
Fcer1a	Fc fragment of IgE, high affinity I, receptor for; alpha polypeptide	1.4
Fcgr1a	Fc fragment of IgG, high affinity Ia, receptor (CD64)	1.0
Isg15	ISG15 ubiquitin-like modifier	1.5
Gata3	GATA binding protein 3	1.7
Gbp1	Guanylate binding protein 1	3.3
Ghr	Growth hormone receptor	1.2
Hmga1	High mobility group AT-hook 1	1.3
Ifnar1	Interferon (alpha, beta and omega) receptor 1	1.3
IFNg	Interferon gamma	4.3
IFNgr	Interferon gamma receptor 1	2.5
Il10ra	Interleukin 10 receptor, alpha	0.7
Il2ra	Interleukin 2 receptor, alpha	1.4
Il2rg	Interleukin 2 receptor, gamma	0.7
Il4	Interleukin 4	1.6
Il4ra	Interleukin 4 receptor, alpha	1.4
Il6st	Interleukin 6 signal transducer	1.4
Irf1	Interferon regulatory factor 1	1.2
Irf9	Interferon regulatory factor 9	N/A
Jak1	Janus kinase 1	1.5
Jak2	Janus kinase 2	1.4
Jak3	Janus kinase 3	1.3

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Jun	Jun oncogene	1.0
Junb	Jun B proto-oncogene	1.1
Sit1	Signaling threshold regulating transmembrane adaptor 1	1.3
Il20	Interleukin 20	1.5
Mmp3	Matrix metalloproteinase 3	1.1
Mpl	Myeloproliferative leukemia virus oncogene	0.6
Myc	Myelocytomatosis oncogene	1.1
Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	1.5
Nos2	Nitric oxide synthase 2, inducible	1.4
Nr3c1	Nuclear receptor subfamily 3, group C, member 1	1.4
Osm	Oncostatin M	2.1
Pdgfra	Platelet derived growth factor receptor, alpha polypeptide	1.0
Pias1	Protein inhibitor of activated STAT, 1	1.2
Prl	Prolactin	1.3
Prlr	Prolactin receptor	1.1
Ptpn1	Protein tyrosine phosphatase, non-receptor type 1	1.2
Sirpa	Signal-regulatory protein alpha	1.1
Ptprc	Protein tyrosine phosphatase, receptor type, C	1.6
Pzp	Pregnancy-zone protein	1.0
Il10rb	Interleukin 10 receptor, beta	1.3
Sla2	Src-like-adaptor 2	1.1
Stam	Signal transducing adaptor molecule (SH3 domain and ITAM motif) 1	1.8
Socs5	Suppressor of cytokine signaling 5	1.5
Spi1	Spleen focus forming virus (SFFV) proviral integration oncogene spi1	1.2
Sh2b1	SH2B adaptor protein 1	1.5
Smad1	SMAD family member 1	1.4
Smad2	SMAD family member 2	1.1
Smad3	SMAD family member 3	1.3
Smad4	SMAD family member 4	1.1
Smad5	SMAD family member 5	1.2
Socs1	Suppressor of cytokine signaling 1	1.4
Socs2	Suppressor of cytokine signaling 2	3.1
Socs3	Suppressor of cytokine signaling 3	1.1
Socs4	Suppressor of cytokine signaling 4	1.2
Sp1	Sp1 transcription factor	1.0
Src	V-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)	1.3
Stat1	Signal transducer and activator of transcription 1	1.4
Stat2	Signal transducer and activator of transcription 2	1.6
Stat3	Signal transducer and activator of transcription 3	1.3
Stat4	Signal transducer and activator of transcription 4	1.4
Stat5a	Signal transducer and activator of transcription 5A	1.6

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Stat5b	Signal transducer and activator of transcription 5B	1.2
Stat6	Signal transducer and activator of transcription 6	1.1
Stub1	STIP1 homology and U-Box containing protein 1	1.3
Fas	Fas (TNF receptor superfamily, member 6)	1.4
Tyk2	Tyrosine kinase 2	1.5
Usf1	Upstream transcription factor 1	1.5
Yy1	YY1 transcription factor	1.1
Rplp1	Ribosomal protein, large, P1	1.1
Hprt1	Hypoxanthine phosphoribosyltransferase 1	0.9
Rpl13a	Ribosomal protein L13A	1.4
Ldha	Lactate dehydrogenase A	1.0

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β TC-3

Gene	Description	Fold Diff
A2m	Alpha-2-macroglobulin	0.5
Sh2b2	SH2B adaptor protein 2	0.9
Bcl2l1	Bcl2-like 1	0.8
Ccnd1	Cyclin D1	0.7
Cdkn1a	Cyclin-dependent kinase inhibitor 1A (P21)	0.9
Cebpb	CCAAT/enhancer binding protein (C/EBP), beta	0.9
Crk	V-crk sarcoma virus CT10 oncogene homolog (avian)	0.9
Crp	C-reactive protein, pentraxin-related	0.7
Csf1r	Colony stimulating factor 1 receptor	0.5
Csf2rb2	Colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage)	0.3
Cxcl9	Chemokine (C-X-C motif) ligand 9	0.5
Egfr	Epidermal growth factor receptor	0.8
Epor	Erythropoietin receptor	1.0
F2	Coagulation factor II	0.8
F2r	Coagulation factor II (thrombin) receptor	0.8
Fas	Fas (TNF receptor superfamily member 6)	0.6
Fcer1a	Fc receptor, IgE, high affinity I, alpha polypeptide	0.6
Fcgr1	Fc receptor, IgG, high affinity I	0.6
Isg15	ISG15 ubiquitin-like modifier	1.0
Gata3	GATA binding protein 3	0.5
Gbp1	Guanylate binding protein 1	0.7
Ghr	Growth hormone receptor	0.9
Hmga1	High mobility group AT-hook 1	1.0
Ifnar1	Interferon (alpha and beta) receptor 1	0.9
Ifng	Interferon gamma	21.3
Ifngr1	Interferon gamma receptor 1	0.9
Il10ra	Interleukin 10 receptor, alpha	0.1
Il10rb	Interleukin 10 receptor, beta	1.0
Il20	Interleukin 20	0.4
Il2ra	Interleukin 2 receptor, alpha chain	0.4
Il2rg	Interleukin 2 receptor, gamma chain	1.0
Il4	Interleukin 4	0.5
Il4ra	Interleukin 4 receptor, alpha	1.0
Il6st	Interleukin 6 signal transducer	0.7
Irf1	Interferon regulatory factor 1	0.7
Irf9	Interferon regulatory factor 9	0.9

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Jak1	Janus kinase 1	0.8
Jak2	Janus kinase 2	1.0
Jun	Jun oncogene	1.1
Junb	Jun-B oncogene	1.0
Mmp3	Matrix metalloproteinase 3	0.3
Mpl	Myeloproliferative leukemia virus oncogene	0.6
Myc	Myelocytomatosis oncogene	1.0
Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105	0.8
Nos2	Nitric oxide synthase 2, inducible	0.3
Nr3c1	Nuclear receptor subfamily 3, group C, member 1	0.9
Oas1a	2'-5' oligoadenylate synthetase 1A	0.8
Osm	Oncostatin M	1.0
Pdgfra	Platelet derived growth factor receptor, alpha polypeptide	0.5
Pias1	Protein inhibitor of activated STAT 1	0.9
Prl	Prolactin	0.4
Prlr	Prolactin receptor	0.8
Ptpn1	Protein tyrosine phosphatase, non-receptor type 1	1.1
Ptprc	Protein tyrosine phosphatase, receptor type, C	0.6
Pzp	Pregnancy zone protein	0.5
Saa3	Serum amyloid A 3	0.8
Sfpi1	SFFV proviral integration 1	1.0
Sh2b1	SH2B adaptor protein 1	0.8
Sit1	Suppression inducing transmembrane adaptor 1	0.4
Sla2	Src-like-adaptor 2	0.7
Smad1	MAD homolog 1 (Drosophila)	0.8
Smad2	MAD homolog 2 (Drosophila)	0.8
Smad3	MAD homolog 3 (Drosophila)	0.8
Smad4	MAD homolog 4 (Drosophila)	0.9
Smad5	MAD homolog 5 (Drosophila)	0.6
Socs1	Suppressor of cytokine signaling 1	1.0
Socs2	Suppressor of cytokine signaling 2	0.9
Socs3	Suppressor of cytokine signaling 3	1.0
Socs4	Suppressor of cytokine signaling 4	0.9
Socs5	Suppressor of cytokine signaling 5	0.9
Sp1	Trans-acting transcription factor 1	0.8
Src	Rous sarcoma oncogene	0.8
Stam	Signal transducing adaptor molecule (SH3 domain and ITAM motif) 1	0.9
Stat1	Signal transducer and activator of transcription 1	0.9
Stat2	Signal transducer and activator of transcription 2	0.6
Stat3	Signal transducer and activator of transcription 3	0.9
Stat4	Signal transducer and activator of transcription 4	0.6

ESM TABLE 1: *Fold changes in JAK/STAT PCR Array gene expression for INS-1 cells and β TC-3 cells related to IL-12 stimulation. Table page 6*

Stat5a	Signal transducer and activator of transcription 5A	0.9
Stat5b	Signal transducer and activator of transcription 5B	0.9
Stat6	Signal transducer and activator of transcription 6	1.0
Stub1	STIP1 homology and U-Box containing protein 1	0.9
Tyk2	Tyrosine kinase 2	0.7
Usf1	Upstream transcription factor 1	0.9
Yy1	YY1 transcription factor	0.8
Gusb	Glucuronidase, beta	0.7
Hprt	Hypoxanthine guanine phosphoribosyl transferase	0.9
Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1	0.8