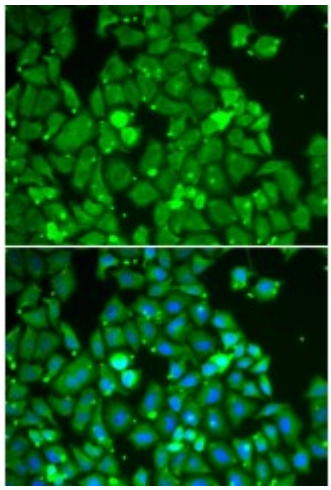
Anti-STAT1 Antibody



Description	The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein can be activated by various ligands including interferon-alpha, interferon-gamma, EGF, PDGF and IL6. This protein mediates the expression of a variety of genes, which is thought to be important for cell viability in response to different cell stimuli and pathogens. Two alternatively spliced transcript variants encoding distinct isoforms have been described.

Model	STJ114211
Host	Rabbit
Reactivity	Human, Mouse
Applications	IF, WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 513-712 of human STAT1 (NP_644671.1).
Gene ID	6772
Gene Symbol	STAT1
Dilution range	WB 1:500 - 1:2000 IF 1:50 - 1:100
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Signal transducer and activator of transcription 1-alpha/beta Transcription

	factor ISGF-3 components p91/p84
Molecular Weight	87.335 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:11362OMIM:600555Reactome:R-HSA-1059683
Alternative Names	Signal transducer and activator of transcription 1-alpha/beta Transcription factor ISGF-3 components p91/p84
Function	Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors, Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, signaling via protein kinases leads to activation of Jak kinases (TYK2 and JAK1) and to tyrosine phosphorylation of STAT1 and STAT2, The phosphorylated STATs dimerize and associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus to drive the expression of the target genes, inducing a cellular antiviral state, Becomes activated in response to KITLG/SCF and KIT signaling, May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4,
Cellular Localization	Cytoplasm,
Post-translational Modifications	Phosphorylated on tyrosine and serine residues in response to a variety of cytokines/growth hormones including IFN-alpha, IFN-gamma, PDGF and EGF, Activated KIT promotes phosphorylation on tyrosine residues and subsequent translocation to the nucleus, Upon EGF stimulation, phosphorylation on Tyr-701 (lacking in beta form) by JAK1, JAK2 or TYK2 promotes dimerization and subsequent translocation to the nucleus, Growth hormone (GH) activates STAT1 signaling only via JAK2, Tyrosine phosphorylated in response to constitutively activated FGFR1, FGFR2, FGFR3 and FGFR4, Phosphorylation on Ser-727 by several kinases including MAPK14, ERK1/2 and CAMKII on IFN-gamma stimulation, regulates STAT1 transcriptional activity, Phosphorylation on Ser-727 promotes sumoylation though increasing interaction with PIAS, Phosphorylation on Ser-727 by PRKCD induces apoptosis in response to DNA-damaging agents, Phosphorylated on tyrosine residues when PTK2/FAK1 is activated