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Anti- STAT1 Antibody
Catalog # ABV11946

Specification

Anti- STAT1 Antibody - Product Information

Application	**WB**
Primary Accession	P42224
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Isotype	**Rabbit IgG**
Calculated MW	**87335**

Anti- STAT1 Antibody - Additional Information

Gene ID 6772

Positive Control	**WB; HEK293T, RAW264.7, H9C2 cell lysate**
Application & Usage	**WB; 1:500 – 1:2000**

Other Names
Signal transducer and activator of transcription 1-alpha/beta; Transcription factor ISGF-3 components p91/p84

Target/Specificity
STAT1

Antibody Form
Liquid

Appearance
Colorless liquid

Handling
The antibody solution should be gently mixed before use

Reconstitution & Storage
-20°C

Background Descriptions

Precautions
Anti- STAT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti- STAT1 Antibody - Protein Information

Name STAT1

Function
Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors (PubMed:9724754, PubMed:12855578, PubMed:12764129, PubMed:15322115, PubMed:34508746, PubMed:35568036, PubMed:23940278). 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 (PubMed:28753426, PubMed:35568036). ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of IFN-stimulated genes (ISG), which drive the cell in an antiviral state (PubMed:28753426, PubMed:35568036). In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated (PubMed:26479788). It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state (PubMed:8156998). Becomes activated in response to KITLG/SCF and KIT signaling (PubMed:15526160). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed:19088846). Involved in food tolerance in small intestine: associates with the Gasdermin-D, p13 cleavage product (13 kDa GSDMD) and promotes transcription of CIITA, inducing type 1 regulatory T (Tr1) cells in upper small intestine (By similarity).

Cellular Location
Cytoplasm. Nucleus Note=Translocated into the nucleus upon tyrosine phosphorylation and dimerization, in response to IFN-gamma and signaling by activated FGFR1, FGFR2, FGFR3 or FGFR4 (PubMed:15322115). Monomethylation at Lys- 525 is required for phosphorylation at Tyr-701 and translocation into the nucleus (PubMed:28753426). Translocates into the nucleus in response to interferon-beta stimulation (PubMed:26479788)

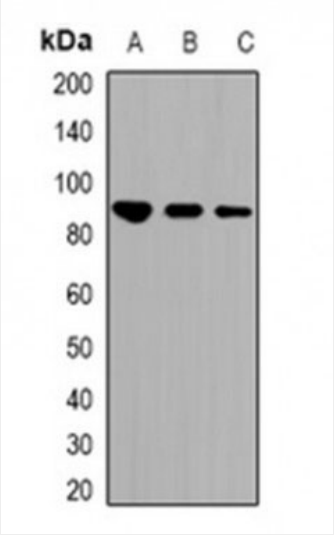
Anti- STAT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti- STAT1 Antibody - Images

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WB analysis of ST AT1 (AcK410/K413) expression in HEK293T (A) RAW264.7 (B) H9C2 (C) whole cell lysates