

## Anti-STAT1 Antibody (C-Terminus)

Rabbit Anti Human Polyclonal Antibody Catalog # ALS17293

### Specification

# Anti-STAT1 Antibody (C-Terminus) - Product Information

Application Primary Accession Predicted

Host Clonality Calculated MW IHC-P P42224 Human, Mouse, Rat, Monkey, Pig, Chicken, Bovine, Dog Rabbit Polyclonal 87335

## Anti-STAT1 Antibody (C-Terminus) - Additional Information

Gene ID 6772

Alias Symbol Other Names STAT1, ISGF-3, STAT91, CANDF7 STAT1

Target/Specificity Recognizes endogenous levels of STAT1 protein.

**Reconstitution & Storage** PBS, pH 7.3, 0.01% sodium azide, 30% glycerol. Store at -20°C. Aliquot to avoid freeze/thaw cycles.

**Precautions** Anti-STAT1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

#### Anti-STAT1 Antibody (C-Terminus) - 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:<a href="http://www.uniprot.org/citations/12764129" target="\_blank">12764129</a>, PubMed:<a href="http://www.uniprot.org/citations/12855578" target="\_blank">12855578</a>, PubMed:<a href="http://www.uniprot.org/citations/15322115" target="\_blank">15322115</a>, PubMed:<a href="http://www.uniprot.org/citations/23940278" target="\_blank">23940278</a>, PubMed:<a href="http://www.uniprot.org/citations/23940278" target="\_blank">34508746</a>, PubMed:<a href="http://www.uniprot.org/citations/34508746" target="\_blank">34508746</a>, PubMed:<a href="http://www.uniprot.org/citations/34508746" target="\_blank">34508746</a>, PubMed:<a href="http://www.uniprot.org/citations/35568036" target="\_blank">34508746</a>, PubMed:<a href="http://www.uniprot.org/citations/35568036" target="\_blank">34508746</a>, PubMed:<a href="http://www.uniprot.org/citations/34508746" target="\_blank">34508746</a>, PubMed:<a



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:<a

href="http://www.uniprot.org/citations/28753426" target="\_blank">28753426</a>, PubMed:<a href="http://www.uniprot.org/citations/35568036" target="\_blank">35568036</a>). 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:<a

href="http://www.uniprot.org/citations/28753426" target=" blank">28753426</a>, PubMed:<a href="http://www.uniprot.org/citations/35568036" target=" blank">35568036</a>). In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated (PubMed: <a href="http://www.uniprot.org/citations/26479788" target=" blank">26479788</a>). 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:<a href="http://www.uniprot.org/citations/8156998" target=" blank">8156998</a>). Becomes activated in response to KITLG/SCF and KIT signaling (PubMed:<a href="http://www.uniprot.org/citations/15526160" target=" blank">15526160</a>). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed: <a href="http://www.uniprot.org/citations/19088846" target="\_blank">19088846</a>). Following bacterial lipopolysaccharide (LPS)-induced TLR4 endocytosis, phosphorylated at Thr-749 by IKBKB which promotes binding of STAT1 to the 5'-TTTGAGGC-3' sequence in the ARID5A promoter, resulting in transcriptional activation of ARID5A and subsequent ARID5A-mediated stabilization of IL6 (PubMed: <a href="http://www.uniprot.org/citations/32209697" target=" blank">32209697</a>). Phosphorylation at Thr-749 also promotes binding of STAT1 to the 5'-TTTGAGTC-3' sequence in the IL12B promoter and activation of IL12B transcription (PubMed:<a href="http://www.uniprot.org/citations/32209697" target="\_blank">32209697</a>). 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)

#### **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 (C-Terminus) - Protocols

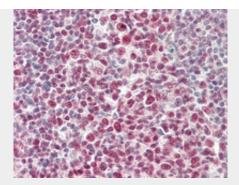
cells in upper small intestine (By similarity).

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-STAT1 Antibody (C-Terminus) - Images





Human Tonsil: Formalin-Fixed, Paraffin-Embedded (FFPE)