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# STAT1 Antibody
**Mouse Monoclonal Antibody (Mab)**
**Catalog # AM2229b**

## Specification

### STAT1 Antibody - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | P42224 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **IgG1** |

### STAT1 Antibody - Additional Information

**Gene ID** 6772

**Other Names**
Signal transducer and activator of transcription 1-alpha/beta, Transcription factor ISGF-3 components p91/p84, STAT1

**Target/Specificity**
Purified His-tagged STAT1 protein was used to produced this monoclonal antibody.

**Dilution**
WB~~1:1000

**Format**
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

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

### 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).

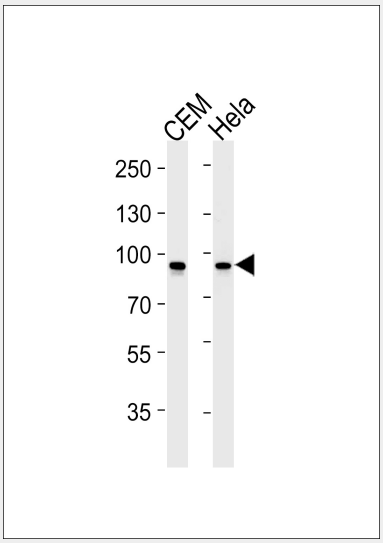
**Cellular Location**
Cytoplasm. Nucleus Note=Translocated into the nucleus upon tyrosine phosphorylation and dimerization, in response to IFN-gamma and signaling by activated FGFR1, FGFR2, FGFR3 or FGFR4 (PubMed:15322115). Monomethylation at Lys- 525 is required for phosphorylation at Tyr-701 and translocation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

## 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

## STAT1 Antibody - Images




STAT1 Antibody(Cat. #AM2229b) western blot analysis in CEM,Hela cell line lysates (35µg/lane).This demonstrates the STAT1 antibody detected the STAT1 protein (arrow).

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## STAT1 Antibody - Background

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## STAT1 Antibody - References

Kristensen I., et al. Submitted (NOV-2009) to the EMBL/GenBank/DDBJ databases.
Schindler C., et al. Proc. Natl. Acad. Sci. U.S.A. 89:7836-7839(1992).
Ota T., et al. Nat. Genet. 36:40-45(2004).
Bechtel S., et al. BMC Genomics 8:399-399(2007).
Kalnine N., et al. Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.