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Datasheet for ABIN967759

anti-STAT1 antibody (AA 1-194)

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Overview

Quantity:	150 µg
Target:	STAT1
Binding Specificity:	AA 1-194
Reactivity:	Human, Mouse, Rat, Dog, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This STAT1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human Stat1 aa. 1-194
Clone:	1-Stat1
Isotype:	IgG1
Cross-Reactivity:	Chicken, Dog (Canine), Frog, Mouse (Murine), Rat (Rattus)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification: The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: STAT1

Alternative Name: Stat1 ([STAT1 Products](#))

Background: Stat (Signal transducer and activators of transcription) proteins are critical mediators of the biologic activity of cytokines, including interleukins, interferons, erythropoietin, and growth factors. Ligand-receptor interaction leads to activation of constitutively associated JAK family kinases and subsequent recruitment/activation of Stat proteins by tyrosine phosphorylation. Active Stat proteins then move to the nucleus to promote transcription of cytokine-inducible genes. Seven Stat proteins have been cloned, each of which is differentially expressed and/or activated in a cytokine-specific and cell type-specific manner. Stat1 and Stat2 are components of the ISGF3 (Interferon-Stimulated Gene Factor 3) complex, which is the primary transcription activator induced by the binding of the interferon to a specific cell-surface receptor. Stat1 has two alternatively spliced isoforms, 91-kDa Stat1alpha and 84 kDa Stat1beta, Stat1alpha has 38 additional C-terminal amino acids. In response to the binding of IFNalpha, IFNgamma, EGF, PDGF, or CSF-1 to their respective receptors, the Stat1 subunits become tyrosine-phosphorylated at Y701, and the complex is translocated to the nucleus. This results in the formation of an active complex that includes the DNA-binding p48 subunit. This complex is responsible for modulating the transcription of the interferon-stimulated genes (ISGs). Thus, phosphorylation of Y701 in Stat1 occurs in response to growth factors and cytokines, and is essential for normal transcriptional activity of the ISGF3 complex. The 1/Stat1 monoclonal antibody recognizes the N-terminus of human Stat1 (both isoforms), regardless of phosphorylation status. This antibody is routinely tested by western blot analysis.

Molecular Weight: 91/84 kDa

Pathways: [JAK-STAT Signaling](#), [RTK Signaling](#), [Interferon-gamma Pathway](#), [Response to Growth Hormone Stimulus](#), [Cellular Response to Molecule of Bacterial Origin](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [CXCR4-mediated Signaling Events](#)

Application Details

Comment: Related Products: ABIN968533, ABIN967389

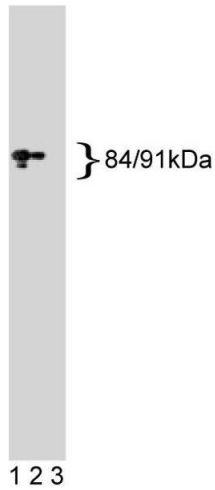
Restrictions: For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

- Product cited in:
- Doan, Ali, Bernstein: "Tyrosine kinase activation by the angiotensin II receptor in the absence of calcium signaling." in: **The Journal of biological chemistry**, Vol. 276, Issue 24, pp. 20954-8, (2001) ([PubMed](#)).
- Dupuis, Dargemont, Fieschi, Thomassin, Rosenzweig, Harris, Holland, Schreiber, Casanova: "Impairment of mycobacterial but not viral immunity by a germline human STAT1 mutation." in: **Science (New York, N.Y.)**, Vol. 293, Issue 5528, pp. 300-3, (2001) ([PubMed](#)).
- Dumoutier, Louahed, Renault: "Cloning and characterization of IL-10-related T cell-derived inducible factor (IL-TIF), a novel cytokine structurally related to IL-10 and inducible by IL-9." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 164, Issue 4, pp. 1814-9, (2000) ([PubMed](#)).
- Sadowski, Shuai, Darnell, Gilman: "A common nuclear signal transduction pathway activated by growth factor and cytokine receptors." in: **Science (New York, N.Y.)**, Vol. 261, Issue 5129, pp. 1739-44, (1993) ([PubMed](#)).
- Fu, Schindler, Improta, Aebersold, Darnell: "The proteins of ISGF-3, the interferon alpha-induced transcriptional activator, define a gene family involved in signal transduction." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 89, Issue 16, pp. 7840-3, (1992) ([PubMed](#)).



Western Blotting

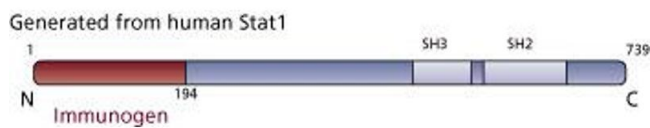
Image 1. Western blot analysis of Stat1 on a A431 cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti- Stat1 antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of human fibroblast cells.

Image 3.



Please check the [product details page](#) for more images. Overall 4 images are available for ABIN967759.