

Datasheet for ABIN967808

anti-STAT3 antibody (AA 1-175)**1** Image**5** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	STAT3
Binding Specificity:	AA 1-175
Reactivity:	Human, Mouse, Rat, Dog, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This STAT3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Rat Stat3 aa. 1-175
Clone:	84-Stat3
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse (Murine), Dog (Canine), Chicken, Frog
Characteristics:	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.
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Target Details

Target:	STAT3
Alternative Name:	Stat3 (STAT3 Products)
Background:	The Stat proteins function as both cytoplasmic signal transducers and activators of transcription. Stat91/84 (the two proteins are the result of alternate splicing-Stat91 has an additional 38 C-terminal amino acids) and Stat113 were the first identified members of this protein family. With the discovery of additional members of the Stat family (Stats3 & 4), the nomenclature has been revised to indicate the Stat family members in the order of their discovery. Stat 91, 84, and 113 have become Stat1alpha, Stat1beta, and Stat2, respectively. Stat3 is a 92 kDa protein that is activated as a DNA binding protein through tyrosine phosphorylation in response to treatment of cells with EGF and IL-6 but not with IFN-gamma. Stat3 is widely expressed and can bind to DNA in the absence of Stat1alpha or Stat2. Stat3 can bind to the sis-inducible element (SIE) site from the c-fos promoter. The site is similar to the GAS element that is present in IFN-gamma induced genes. It appears that Stat3 binds to DNA as a homodimer, but it is also capable of binding as a heterodimer with Stat1. With the isolation of Stat3 and the discovery of Stat4, it appears that the Stat family may contain many members, each with a characteristic tissue distribution and specific activating ligands.
Molecular Weight:	92 kDa
Pathways:	JAK-STAT Signaling , RTK Signaling , Interferon-gamma Pathway , Neurotrophin Signaling Pathway , Dopaminergic Neurogenesis , Response to Growth Hormone Stimulus , Carbohydrate Homeostasis , Stem Cell Maintenance , Hepatitis C , Protein targeting to Nucleus , Feeding Behaviour , CXCR4-mediated Signaling Events , Signaling of Hepatocyte Growth Factor Receptor

Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
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Handling

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:	Buitenhuis, Baltus, Lammers, Coffe, Koenderman: "Signal transducer and activator of transcription 5a (STAT5a) is required for eosinophil differentiation of human cord blood-derived CD34+ cells." in: Blood, Vol. 101, Issue 1, pp. 134-42, (2002) (PubMed). Kirito, Osawa, Morita, Shimizu, Yamamoto, Oda, Fujita, Tanaka, Nakajima, Miura, Ozawa, Komatsu: "A functional role of Stat3 in in vivo megakaryopoiesis." in: Blood, Vol. 99, Issue 9, pp. 3220-7, (2002) (PubMed). Hart, Robertson, Donoghue: "Identification of tyrosine residues in constitutively activated fibroblast growth factor receptor 3 involved in mitogenesis, Stat activation, and phosphatidylinositol 3-kinase activation." in: Molecular biology of the cell, Vol. 12, Issue 4, pp. 931-42, (2001) (PubMed). Nielsen, Svejgaard, Skov, Odum: "Interleukin-2 induces tyrosine phosphorylation and nuclear translocation of stat3 in human T lymphocytes." in: European journal of immunology, Vol. 24, Issue 12, pp. 3082-6, (1995) (PubMed). Zhong, Wen, Darnell: "Stat3 and Stat4: members of the family of signal transducers and activators of transcription." in: Proceedings of the National Academy of Sciences of the United States of America, Vol. 91, Issue 11, pp. 4806-10, (1994) (PubMed).
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Western Blotting

Image 1. Western blot analysis of Stat3 on a A431 cell lysate (Human epithelial carcinoma, ATCC CRL-1555). Lane 1: 1:2500, lane 2: 1:5000, lane 3: 10,000 dilution of the mouse anti-Stat3 antibody.