

Stat6 (M-200): sc-1698

BACKGROUND

Membrane receptor signaling by various ligands, including interferons and growth hormones such as EGF, induces activation of JAK kinases which then leads to tyrosine phosphorylation of proteins that have been designated Stats (signal transducers and activators of transcription). The first members of this family to be described include Stat1 α p91, Stat1 β p84 (a form of p91 that lacks 38 COOH-terminal amino acids) and Stat2 p113. Stat1 and Stat2 are induced by IFN- α and form a heterodimer which is part of the ISGF3 transcription factor complex. Stat3, which becomes activated in response to epidermal growth factor (EGF) and interleukin-6 (IL-6), but not interferon- γ (IFN- γ) or Stat4, is an additional member of this family. It has been suggested that the phosphorylated forms of both Stat3 and Stat4 form homodimers as well as heterodimers with the other members of the Stat family, and that differential activation of different Stat proteins in response to different ligands should help to explain specificity in nuclear signaling from the cell surface. Highest expression of Stat4 is seen in testis and myeloid cells. IL-12 has been identified as an activator of Stat4. Other members of the Stat family include Stat5, which has been shown to be activated by prolactin and by IL-3, and Stat6 (also designated IL-4 Stat), which is involved in IL-4-activated signaling pathways.

CHROMOSOMAL LOCATION

Genetic locus: STAT6 (human) mapping to 12q13.3; Stat6 (mouse) mapping to 10 D3.

SOURCE

Stat6 (M-200) is a rabbit polyclonal antibody raised against amino acids 280-480 of Stat6 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1698 X, 200 μ g/0.1 ml.

Stat6 (M-200) is available conjugated to agarose (sc-1698 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

Stat6 (M-200) is recommended for detection of Stat6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Stat6 (M-200) is also recommended for detection of Stat6 in additional species, including equine, canine, bovine and porcine.

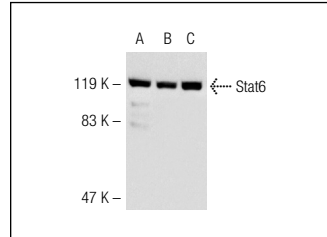
Suitable for use as control antibody for Stat6 siRNA (h): sc-29497, Stat6 siRNA (m): sc-36570, Stat6 shRNA Plasmid (h): sc-29497-SH, Stat6 shRNA Plasmid (m): sc-36570-SH, Stat6 shRNA (h) Lentiviral Particles: sc-29497-V and Stat6 shRNA (m) Lentiviral Particles: sc-36570-V.

Molecular Weight of Stat6: 119 kDa.

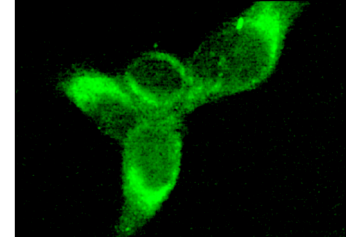
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Stat6 (M-200): sc-1698. Western blot analysis of Stat6 expression in NIH/3T3 (A), KNRK (B) and RAW 264.7 (C) whole cell lysates.



Stat6 (M-200): sc-1698. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Zamanian-Daryoush, M., et al. 2000. NF κ B activation by double-stranded-RNA-activated protein kinase (PKR) is mediated through NF κ B-inducing kinase and I κ B kinase. *Mol. Cell. Biol.* 20: 1278-1290.
- Schjerven, H. 2000. Mechanism of IL-4-mediated up-regulation of the polymeric Ig receptor: role of Stat6 in cell type-specific delayed transcriptional response. *J. Immunol.* 165: 3898-3906.
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- Scheinman, E.J., et al. 2009. Transcriptional regulation of GATA3 in T helper cells by the integrated activities of transcription factors downstream of the interleukin-4 receptor and T cell receptor. *J. Biol. Chem.* 284: 3037-3048.
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- Chu, D., et al. 2011. Paeoniflorin attenuates schistosomiasis japonica-associated liver fibrosis through inhibiting alternative activation of macrophages. *Parasitology* 138: 1259-1271.
- De, S., et al. 2011. Dynamic BRG1 recruitment during T helper differentiation and activation reveals distal regulatory elements. *Mol. Cell. Biol.* 31: 1512-1527.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Stat6 (D-1): sc-374021** or **Stat6 (C-9): sc-1689**, our highly recommended monoclonal alternatives to Stat6 (M-200). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Stat6 (D-1): sc-374021**.