**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 the various Stat transcription factors. Stat1 and Stat2 are induced by IFN-α and form a heterodimer which is part of the ISGF3 transcription factor complex. Although early reports indicate Stat3 activation by EGF and IL-6, it has been shown that Stat3β appears to be activated by both while Stat3α is activated by EGF, but not by IL-6. Highest expression of Stat4 is seen in testis and myeloid cells. IL-12 has been identified as an activator of Stat4. Stat5 has been shown to be activated by prolactin and by IL-3. Stat6 is involved in IL-4 activated signaling pathways.

**CHROMOSOMAL LOCATION**

Genetic locus: STAT3 (human) mapping to 17q21.2; Stat3 (mouse) mapping to 11 D.

**SOURCE**

Stat3 (285.87) is a mouse monoclonal antibody raised against amino acids 1-175 of recombinant Stat3 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Stat3 (285.87) is available conjugated to agarose (sc-293151 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-293151 HRP), 200 µg/ml, for WB, IHC(PO) and ELISA.

**APPLICATIONS**

Stat3 (285.87) is recommended for detection of Stat3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of Stat3α isoform: 91 kDa.

Molecular Weight of Stat3β isoform: 86 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, Neuro-2A whole cell lysate: sc-364185 or HeLa whole cell lysate: sc-2200.

**STORAGE**

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

**DATA**

Stat3 (285.87): sc-293151. Western blot analysis of Stat3 expression in 3T3-L1 whole cell lysate.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.