**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 ISGF-3 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: STAT3 (human) mapping to 17q21.2.

**SOURCE**

p-Stat3 (pS727.25) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 727 phosphorylated 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-293059 X, 200 µg/0.1 ml.

**APPLICATIONS**

p-Stat3 (pS727.25) is recommended for detection of Ser 727 phosphorylated Stat3 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non-cross-reactive with Ser 727 phosphorylated Stat3 of mouse origin.


Molecular Weight of p-Stat3 isoforms: 91/86 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 + EGF whole cell lysate: sc-2202 or K-562 whole cell lysate: sc-2203.

**STORAGE**

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

**RESEARCH USE**

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

**PROTOCOLS**

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