p-Stat1 (pY701.4A): sc-136229

**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. Mouse, rat and human Stat1 are phosphorylated on tyrosine and serine residues, specifically Tyr 701 which is phosphorylated by JAK1, which promotes dimerization, allowing Stat1 to be translocated to the nucleus.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: STAT1 (human) mapping to 2q32.2; Stat1 (mouse) mapping to chromosome 7.

**SOURCE**

p-Stat1 (pY701.4A) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 701 phosphorylated Stat1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

p-Stat1 (pY701.4A) is recommended for detection of Tyr 701 phosphorylated Stat1α and Stat1β 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 immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Stat1α: 91 kDa.

Molecular Weight of Stat1β: 84 kDa.

Positive Controls: A-431 + EGF whole cell lysate: sc-2202, KARPAS-299 whole cell lysate: sc-364781 or human umbilical cord extract: sc-363783.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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