

p-Stat3 (Ser 727): sc-21876

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 Stat3 β appears to be activated by both while Stat3 α 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

p-Stat3 (Ser 727) is available as either goat (sc-21876) or rabbit (sc-21876-R) affinity purified polyclonal antibody raised against a short amino acid sequence containing Ser 727 phosphorylated Stat3 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.

Blocking peptide available for competition studies, sc-21876 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-Stat3 (Ser 727) is recommended for detection of Ser 727 phosphorylated Stat3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

p-Stat3 (Ser 727) is also recommended for detection of correspondingly phosphorylated Stat3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Stat3 siRNA (h): sc-29493, Stat3 siRNA (m): sc-29494, Stat3 shRNA Plasmid (h): sc-29493-SH, Stat3 shRNA Plasmid (m): sc-29494-SH, Stat3 shRNA (h) Lentiviral Particles: sc-29493-V and Stat3 shRNA (m) Lentiviral Particles: sc-29494-V.

Molecular Weight of p-Stat3 α isoform: 91 kDa.

Molecular Weight of p-Stat3 β isoform: 86 kDa.

Positive Controls: HeLa + IFN- γ cell lysate: sc-2222, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

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- Kumar, A., et al. 2011. A novel parthenin analog exhibits anti-cancer activity: activation of apoptotic signaling events through robust NO formation in human leukemia HL-60 cells. *Chem. Biol. Interact.* 193: 204-215.
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- Amara, S., et al. 2015. Synergistic effect of pro-inflammatory TNF α and IL-17 in periostin mediated collagen deposition: potential role in liver fibrosis. *Mol. Immunol.* 64: 26-35.

RESEARCH USE

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

PROTOCOLS

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


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Try **p-Stat3 (pS727.25): sc-293059** or **p-Stat3 (23G5): sc-56747**, our highly recommended monoclonal alternatives to p-Stat3 (Ser 727).