**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 (H-190) is a rabbit polyclonal antibody raised against amino acids 50-240 of Stat3 p92 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7179 X, 200 µg/0.1 ml.

**APPLICATIONS**

Stat3 (H-190) is recommended for detection of Stat3 p92 of mouse, rat, human, *Xenopus laevis* and zebrafish 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Stat3 (H-190) is also recommended for detection of Stat3 p92 in additional species, including equine, canine, bovine, porcine and avian.


Stat3 (H-190) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Stat3α is isofrom: 91 kDa.

Molecular Weight of Stat3β isofrom: 86 kDa.

Positive Controls: Stat3 (h3): 293T Lysate: sc-177985, NIH/3T3 whole cell lysate: sc-2210 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.

**DATA**

![Western blot analysis of Stat3 expression in non-transfected 293T: sc-117752 (A), human Stat3 transfected 293T: sc-177985 (B) and K-562 (C) whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**Try Stat3 (F-2): sc-8019 or Stat3 (285.87): sc-293151, our highly recommended monoclonal alternatives to Stat3 (H-190). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see Stat3 (F-2): sc-8019.**