# SANTA CRUZ BIOTECHNOLOGY, INC.

# ISGF-3γ p48 (H-143): sc-10793



## BACKGROUND

Interferon signaling to the cell nucleus operates through phosphorylation on Tyrosine of proteins that have been designated Stats (signal transducers and activators of transcription). The first members of this family to be described include Stat1 $\alpha$  p91, Stat1 $\beta$  p84 (a form of p91 that lacks 38 COOH-terminal amino acids) and Stat2 p113. Other members of the family include Stat3, which becomes activated through phosphorylation on Tyrosine as a DNA binding protein in response to epidermal growth factor (EGF) and interleukin-6 (IL-6) but not interferon  $\gamma$  (IFN- $\gamma$ ) and Stat4. Stat1 $\alpha$  p91 (or Stat1 $\beta$  p84) and p113 form a complex (designated ISGF-3) with p48, a protein that has been shown by sequence analysis to be a member of the interferon regulatory (IRF) family of DNA binding proteins.

#### CHROMOSOMAL LOCATION

Genetic locus: IRF9 (human) mapping to 14q12; Irf9 (mouse) mapping to 14 C3.

#### SOURCE

 $ISGF{-}3\gamma$  p48 (H-143) is a rabbit polyclonal antibody raised against amino acids 113-255 of ISGF{-}3\gamma p48 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG 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-10793 X, 200  $\mu g/0.1$  ml.

### **APPLICATIONS**

ISGF-3 $\gamma$  p48 (H-143) is recommended for detection of ISGF-3 $\gamma$  p48 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)], 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).

Suitable for use as control antibody for ISGF-3 $\gamma$  p48 siRNA (h): sc-38013, ISGF-3 $\gamma$  p48 siRNA (m): sc-38014, ISGF-3 $\gamma$  p48 shRNA Plasmid (h): sc-38013-SH, ISGF-3 $\gamma$  p48 shRNA Plasmid (m): sc-38014-SH, ISGF-3 $\gamma$  p48 shRNA (h) Lentiviral Particles: sc-38013-V and ISGF-3 $\gamma$  p48 shRNA (m) Lentiviral Particles: sc-38014-V.

ISGF-3 $\gamma$  p48 (H-143) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ISGF-3y p48: 48 kDa.

Positive Controls: HeLa + IFN- $\gamma$  cell lysate: sc-2222, or MCF7 whole cell lysate: sc-2206.

#### STORAGE

Store at 4° C, \*\*D0 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.

#### DATA





ISGF-3 $\gamma$  p48 (H-143): sc-10793. Western blot analysis of ISGF-3 $\gamma$  p48 expression in HeLa + IFN $\alpha$  whole cell lysate.

ISGF-3g p48 (H-143): sc-10793. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear and cytoplasmic staining of glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Clarke, N., et al. 2004. Tumor suppressor IRF-1 mediates retinoid and interferon anticancer signaling to death ligand TRAIL. EMBO J. 23: 3051-3060.
- 2. Zurney, J., et al. 2009. Reovirus  $\mu$ 2 protein inhibits interferon signaling through a novel mechanism involving nuclear accumulation of interferon regulatory factor 9. J. Virol. 83: 2178-2187.
- De Marchis, M.L., et al. 2009. A new molecular network comprising PU.1, interferon regulatory factor proteins and miR-342 stimulates ATRA-mediated granulocytic differentiation of acute promyelocytic leukemia cells. Leukemia 23: 856-862.
- 4. Tsuno, T., et al. 2009. IRF9 is a key factor for eliciting the antiproliferative activity of IFN- $\alpha$ . J. Immunother. 32: 803-816.
- Su, W.C., et al. 2009. Ribavirin enhances interferon signaling via stimulation of mTOR and p53 activities. FEBS Lett. 583: 2793-2798.
- Rosas-Murrieta, N.H., et al. 2010. Interaction of mumps virus V protein variants with STAT1-STAT2 heterodimer: experimental and theoretical studies. Virol. J. 7: 263.
- Schmid, S., et al. 2010. Transcription factor redundancy ensures induction of the antiviral state. J. Biol. Chem. 285: 42013-42022.
- 8. Flammer, J.R., et al. 2010. The type I interferon signaling pathway is a target for glucocorticoid inhibition. Mol. Cell. Biol. 30: 4564-4574.
- Mutocheluh, M., et al. 2011. KSHV vIRF-2 inhibits type 1 interferon signalling by targeting ISGF-3. J. Gen. Virol. 92: 2394-2398.

#### MONOS Satisfation Guaranteed

Try ISGF-3γ p48 (H-10): sc-365893 or ISGF-3γ p48 (E-9): sc-514648, our highly recommended monoclonal aternatives to ISGF-3γ p48 (H-143).