

# ISGF-3 $\gamma$ p48 (C-20): sc-496

## 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; Isgf3g (mouse) mapping to 14 C3.

## SOURCE

ISGF-3 $\gamma$  p48 (C-20) is a rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of ISGF-3 $\gamma$  p48 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-496 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-496 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

ISGF-3 $\gamma$  p48 (C-20) is recommended for detection of ISGF-3 $\gamma$  p48 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ISGF-3 $\gamma$  p48 (C-20) is also recommended for detection of ISGF-3 $\gamma$  p48 in additional species, including equine.

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 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

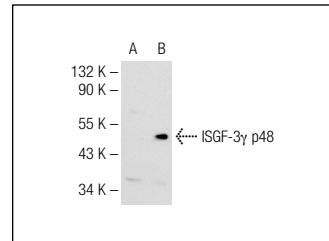
Molecular Weight of ISGF-3 $\gamma$  p48: 48 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa + IFN- $\alpha$  cell lysate: sc-2273 or ISGF-3 $\gamma$  p48 (h): 293T Lysate: sc-115734.

## STORAGE

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

## DATA



ISGF-3 $\gamma$  p48 (C-20): sc-496. Western blot analysis of ISGF-3 $\gamma$  p48 expression in non-transfected: sc-117752 (A) and human ISGF-3 $\gamma$  p48 transfected: sc-115734 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Lu, R., et al. 2000. Regulation of the promoter activity of interferon regulatory factor-7 gene. Activation by inteferon and silencing by hypermethylation. *J. Biol. Chem.* 275: 31805-31812.
- Clifford, J.L., et al. 2000. Expression of protein mediators of type I interferon signaling in human squamous cell carcinoma of the skin. *Cancer Epidemiol. Biomarkers Prev.* 9: 993-997.
- Saloura, V., et al. 2010. Evaluation of an attenuated vesicular stomatitis virus vector expressing interferon- $\beta$  for use in malignant pleural mesothelioma: heterogeneity in interferon responsiveness defines potential efficacy. *Hum. Gene Ther.* 21: 51-64.
- Rieder, M., et al. 2011. Genetic dissection of interferon-antagonistic functions of rabies virus phosphoprotein: inhibition of interferon regulatory factor 3 activation is important for pathogenicity. *J. Virol.* 85: 842-852.
- El Bougrini, J., et al. 2011. PML positively regulates interferon  $\gamma$  signaling. *Biochimie* 93: 389-398.
- Smith, C.D., et al. 2011. Characterization of the liver kinase B1-mouse protein-25-Ste-20-related adaptor protein complex in adult mouse skeletal muscle. *J. Appl. Physiol.* 111: 1622-1628.
- Steen, H.C., et al. 2013. Identification of STAT2 serine 287 as a novel regulatory phosphorylation site in type I interferon-induced cellular responses. *J. Biol. Chem.* 288: 747-758.

## RESEARCH USE

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



Try **ISGF-3 $\gamma$  p48 (H-10): sc-365893** or **ISGF-3 $\gamma$  p48 (E-9): sc-514648**, our highly recommended monoclonal alternatives to ISGF-3 $\gamma$  p48 (C-20).