

# ISGF-3 $\gamma$ p48 (6): sc-135953

## 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.

## REFERENCES

1. Fu, X. and Zhang, J. 1993. Transcription factor p91 interacts with the epidermal growth factor receptor and mediates activation of the c-Fos gene promoter. *Cell* 74: 1135-1145.
2. Shuai, K., et al. 1993. A single phosphotyrosine residue of Stat91 required for gene activation by interferon- $\gamma$ . *Science* 261: 1744-1746.
3. Zhong, Z., et al. 1994. Stat3: a Stat family member activated by Tyrosine phosphorylation in response to epidermal growth factor and interleukin-6. *Science* 264: 95-98.
4. Darnell, J.E., Jr., et al. 1994. Jak-Stat pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. *Science* 264: 1415-1421.
5. Akira, S., et al. 1994. Molecular cloning of APRF, a novel IFN-stimulated gene factor 3 p91-related transcription factor involved in the gp130-mediated signaling pathway. *Cell* 77: 63-71.
6. Harada, H., et al. 1994. Structure and regulation of the human interferon regulatory factor 1 (IRF-1) and IRF-2 genes: implications for a gene network in the interferon system. *Mol. Cell. Biol.* 14: 1500-1509.
7. Yamamoto, K., et al. 1994. Stat4, a novel  $\gamma$  interferon activation site-binding protein expressed in early myeloid differentiation. *Mol. Cell. Biol.* 14: 4342-4349.

## CHROMOSOMAL LOCATION

Genetic locus: IRF9 (human) mapping to 14q12.

## SOURCE

ISGF-3 $\gamma$  p48 (6) is a mouse monoclonal antibody raised against amino acids 126-351 of ISGF-3 $\gamma$  p48 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

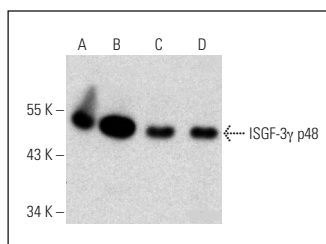
ISGF-3 $\gamma$  p48 (6) is recommended for detection of ISGF-3 $\gamma$  p48 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

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

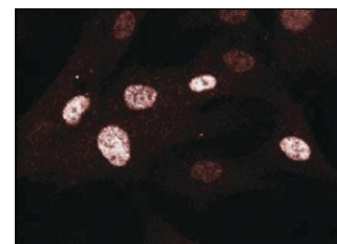
Molecular Weight of ISGF-3 $\gamma$  p48: 48 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

## DATA



ISGF-3 $\gamma$  p48 (6): sc-135953. Western blot analysis of ISGF-3 $\gamma$  p48 expression in MCF7 (A), ECV304 (B), Hep G2 (C) and HeLa (D) whole cell lysates.



ISGF-3 $\gamma$  p48 (6): sc-135953. Immunofluorescence staining of human fibroblast cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

1. Wu, L., et al. 2018. KDM5 histone demethylases repress immune response via suppression of STING. *PLoS Biol.* 16: e2006134.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.