

ISGF-3 γ p48 (E-9): sc-514648

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 α p91, Stat1 β 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 γ (IFN- γ) and Stat4. Stat1 α p91 (or Stat1 β 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

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2. Shuai, K., et al. 1993. A single phosphotyrosine residue of Stat91 required for gene activation by interferon- γ . *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., 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.

CHROMOSOMAL LOCATION

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

SOURCE

ISGF-3 γ p48 (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 370-393 at the C-terminus of ISGF-3 γ p48 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514648 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-514648 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ISGF-3 γ p48 (E-9) is recommended for detection of ISGF-3 γ p48 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 γ p48 siRNA (h): sc-38013, ISGF-3 γ p48 shRNA Plasmid (h): sc-38013-SH and ISGF-3 γ p48 shRNA (h) Lentiviral Particles: sc-38013-V.

ISGF-3 γ p48 (E-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

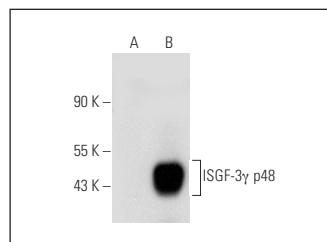
Molecular Weight of ISGF-3 γ p48: 48 kDa.

Positive Controls: ISGF-3 γ p48 (h): 293T Lysate: sc-115734.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ISGF-3 γ p48 (E-9): sc-514648. Western blot analysis of ISGF-3 γ p48 expression in non-transfected: sc-117752 (A) and human ISGF-3 γ p48 transfected: sc-115734 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO 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.

PROTOCOLS

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