

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

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

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., Stark, G.R., Kerr, I.M. and Darnell, J.E., Jr. 1993. A single phosphotyrosine residue of Stat91 required for gene activation by interferon- γ . *Science* 261: 1744-1746.
3. Zhong, Z., Wen, Z. and Darnell, J.E., Jr. 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., Kerr, I.M. and Stark, G.R. 1994. Jak-STAT pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. *Science* 264: 1415-1421.
5. Akira, S., Nishio, Y., Inoue, M., Wang, X., Wei, S., Matsusaka, T., Yoshida, K., Sudo, T., Naruto, M. and Kishimoto, T. 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., Takahashi, E.I., Itoh, S., Harada, K., Hori, T.A. and Taniguchi, T. 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., Quelle, F.W., Thierfelder, W.E., Kreider, B.L., Gilbert, D.J., Jenkins, N.A., Copeland, N.G., Silvennoinen, O. and Ihle, J.N. 1994. Stat4, a novel γ 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.

PRODUCT

ISGF-3 γ p48 (h): 293T Lysate represents a lysate of human ISGF-3 γ p48 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

ISGF-3 γ p48 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive ISGF-3 γ p48 antibodies. Recommended use: 10-20 μ l per lane.

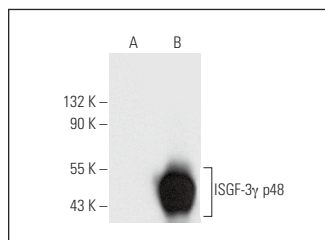
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ISGF-3 γ p48 (H-10): sc-365893 is recommended as a positive control antibody for Western Blot analysis of enhanced human ISGF-3 γ p48 expression in ISGF-3 γ p48 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

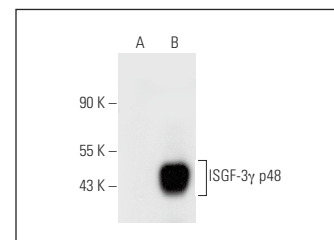
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ISGF-3 γ p48 (H-10): sc-365893. 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.



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 -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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