

IFN- γ R α (K-17): sc-703

BACKGROUND

IFN- γ induces a variety of biological responses, such as antiviral, antiproliferative and immunomodulatory activity in sensitive cells. Activation of the IFN- γ receptor (IFN- γ R) leads to autophosphorylation of the Janus kinases JAK1 and JAK2, and the nuclear translocation of the transcription factors Stat1 α p91 and Stat1 β p84. The IFN- γ R is composed of at least two chains, designated IFN- γ R α and IFN- γ R β , respectively. Although expression of IFN- γ R α is sufficient for ligand binding, it alone does not confer responsiveness to IFN- γ . Concomitant expression of IFN- γ R α and IFN- γ R β is required for transcriptional activation of IFN- γ -inducible genes. The IFN- γ R β chain, also called AF-1, is 332 and 337 amino acids in length in mouse and human, respectively, and may represent the signal transducing component of the IFN- γ R.

REFERENCES

1. Orchansky, P., et al. 1984. Type I and type II interferon receptors. *J. Interferon Res.* 4: 275-282.
2. Novick, D., et al. 1987. The human interferon- γ receptor, purification, characterization and preparation of antibodies. *J. Biol. Chem.* 262: 8483-8487.
3. Aguet, M., et al. 1988. Molecular cloning and expression of the human interferon- γ receptor. *Cell* 55: 273-280.
4. Silvennoinen, O., et al. 1993. Interferon-induced nuclear signalling by JAK protein tyrosine kinases. *Nature* 366: 583-585.
5. Farrar, M.A., et al. 1993. The molecular cell biology of interferon- γ and its receptor. *Annu. Rev. Immunol.* 11: 571-611.
6. Soh, J., et al. 1994. Identification and sequence of an accessory factor required for activation of the human interferon γ receptor. *Cell* 76: 793-802.

CHROMOSOMAL LOCATION

Genetic locus: *Ifngr1* (mouse) mapping to 10 A3.

SOURCE

IFN- γ R α (K-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of IFN- γ R α of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-703 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

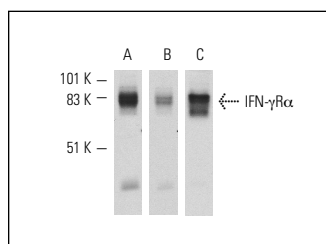
IFN- γ R α (K-17) is recommended for detection of IFN- γ R α of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 IFN- γ R α siRNA (m): sc-35636, IFN- γ R α shRNA Plasmid (m): sc-35636-SH and IFN- γ R α shRNA (m) Lenti-viral Particles: sc-35636-V.

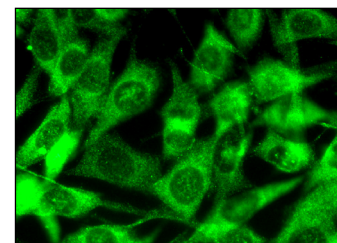
Molecular Weight of IFN- γ R α : 80-95 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, BYDP whole cell lysate: sc-364368 or WEHI-231 whole cell lysate: sc-2213.

DATA



Western blot analysis of mouse IFN- γ R α in RAW 264.7 (A) and WEHI-231 (B, C) whole cell lysates. Antibodies tested include IFN- γ R α (K-17): sc-703 (A, B) and IFN- γ R α (C-20): sc-700 (C).



IFN- γ R α (K-17): sc-703. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

1. Lundkvist, G.B., et al. 1998. Expression of an oscillating interferon- γ receptor in the suprachiasmatic nuclei. *Neuroreport* 9: 1059-1063.
2. Kanzaki, M., et al. 1998. Identification and regulation of testicular interferon- γ (IFN γ) receptor subunits: IFN γ enhances interferon regulatory factor-1 and interleukin-1 β converting enzyme expression. *Endocrinology* 139: 2636-2644.
3. Starr, R., et al. 2009. SOCS-1 binding to tyrosine 441 of IFN- γ receptor subunit 1 contributes to the attenuation of IFN- γ signaling *in vivo*. *J. Immunol.* 183: 4537-4544.

PROTOCOLS

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



Try IFN- γ R α (GIR-94): sc-12755 or IFN- γ R α (F-6): sc-74450, our highly recommended monoclonal alternatives to IFN- γ R α (K-17).