

IFN- γ R β (C-20): sc-970

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.

CHROMOSOMAL LOCATION

Genetic locus: IFNGR2 (human) mapping to 21q22.11.

SOURCE

IFN- γ R β (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IFN- γ R β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for biological studies, sc-970 L, 200 μ g/0.1 ml.

IFN- γ R β (C-20) is available conjugated to agarose (sc-970 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-970 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

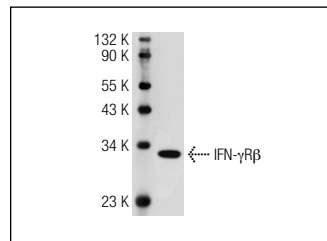
IFN- γ R β (C-20) is recommended for detection of IFN- γ R β of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 β siRNA (h): sc-40094, IFN- γ R β shRNA Plasmid (h): sc-40094-SH and IFN- γ R β shRNA (h) Lentiviral Particles: sc-40094-V.

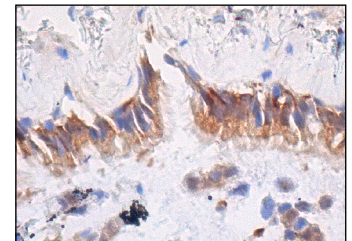
Molecular Weight of IFN- γ R β : 38 kDa.

Positive Controls: human PBL whole cell lysate.

DATA



IFN- γ R β (C-20): sc-970. Western blot analysis of IFN- γ R β expression in human PBL whole cell lysate.



IFN- γ R β (C-20): sc-970. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Royuela, M., et al. 2000. Interferon- γ and its functional receptors over-expression in benign prostatic hyperplasia and prostatic carcinoma: parallelism with c-Myc and p53 expression. *Eur. Cytokine Netw.* 11: 119-127.
2. Atsushi, H., et al. 2003. Hepatitis C virus core protein differently regulates the JAK-Stat signaling pathway under interleukin-6 and interferon- γ stimuli. *J. Biol. Chem.* 278: 28562-28571.
3. Ito, T., et al. 2005. Interferon- γ is a potent inducer of catagen-like changes in cultured human anagen hair follicles. *Br. J. Dermatol.* 152: 623-631.
4. García-Tuñón, I., et al. 2007. Influence of IFN- γ and its receptors in human breast cancer. *BMC Cancer* 7: 158.
5. Li, R., et al. 2009. IFN γ regulates retinal pigment epithelial fluid transport. *Am. J. Physiol., Cell Physiol.* 297: C1452-C1465.

MONOS
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Try **IFN- γ R β (A-11): sc-377291** or **IFN- γ R β (2 HUB 159): sc-53589**, our highly recommended monoclonal alternatives to IFN- γ R β (C-20).