

IFN- γ R α (C-20): sc-700

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.

CHROMOSOMAL LOCATION

Genetic locus: IFNGR1 (human) mapping to 6q23.3; Ifngr1 (mouse) mapping to 10 A3.

SOURCE

IFN- γ R α (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of IFN- γ R α of human origin.

PRODUCT

Each vial contains 100 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-700 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IFN- γ R α (C-20) is recommended for detection of IFN- γ R α of mouse, rat and 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 α siRNA (h): sc-29357, IFN- γ R α siRNA (m): sc-35636, IFN- γ R α shRNA Plasmid (h): sc-29357-SH, IFN- γ R α shRNA Plasmid (m): sc-35636-SH, IFN- γ R α shRNA (h) Lentiviral Particles: sc-29357-V and IFN- γ R α shRNA (m) Lentiviral Particles: sc-35636-V.

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

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

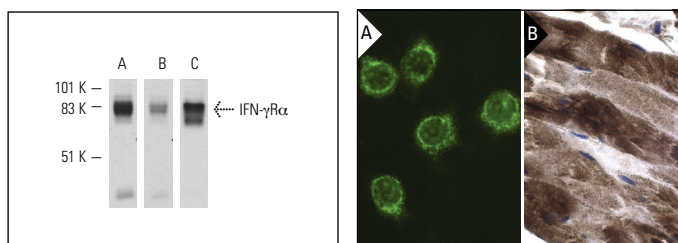
STORAGE

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.

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 (C-20): sc-700. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

- Robertson, B., et al. 1997. Interferon- γ receptors in nociceptive pathways: role in neuropathic pain-related behaviour. *NeuroReport* 8: 1311-1316.
- Popova, S.N., et al. 2004. The mesenchymal α 11 β 1 integrin attenuates PDGF-BB-stimulated chemotaxis of embryonic fibroblasts on collagens. *Dev. Biol.* 270: 427-442.
- Leon, C., et al. 2006. Annexin V associates with the IFN- γ receptor and regulates IFN- γ signaling. *J. Immunol.* 176: 5934-5942.
- Bennett, R.L., et al. 2006. RAX, the PKR activator, sensitizes cells to inflammatory cytokines, serum withdrawal, chemotherapy, and viral infection. *Blood* 108: 821-829.
- Wang, H., et al. 2007. Inflammation activates the interferon signaling pathways in taste bud cells. *J. Neurosci.* 27: 10703-10713.
- Liang, L., et al. 2008. Expression of γ interferon-dependent genes is blocked independently by virion host shutoff RNase and by US3 protein kinase. *J. Virol.* 82: 4688-4696.
- Chentouf, M., et al. 2011. Excessive food intake, obesity and inflammation process in Zucker fa/fa rat pancreatic islets. *PLoS ONE* 6: e22954.
- Zhang, X., et al. 2011. Interferon- γ exacerbates dry eye-induced apoptosis in conjunctiva through dual apoptotic pathways. *Invest. Ophthalmol. Vis. Sci.* 52: 6279-6285.
- Chen, C., et al. 2012. Modulation of IFN- γ receptor 1 expression by AP-2 α influences IFN- γ sensitivity of cancer cells. *Am. J. Pathol.* 180: 661-671.

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Try **IFN- γ R α (GIR-94): sc-12755** or **IFN- γ R α (D-3): sc-28363**, our highly recommended monoclonal alternatives to IFN- γ R α (C-20).