SANTA CRUZ BIOTECHNOLOGY, INC.

IFN-γRβ (H-310): sc-30012

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-γR) leads to autophosphorylation of the Janus kinases JAK1 and JAK2, and the nuclear translocation of the transcription factors Stat1α p91 and Stat1β p84. The IFN-γR is composed of at least two chains, designated IFN-γRα and IFN-γRβ. Although expression of IFN-γRα is sufficient for ligand binding, it alone does not confer responsiveness to IFN-γ. Concomitant expression of IFN-γRα and IFN-γRβ is required for transcriptional activation of IFN-γ-inducible genes. The IFN-γRβ 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-γR.

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-γRβ (H-310) is a rabbit polyclonal antibody raised against amino acids 28-337 of IFN-γRβ of human origin.

PRODUCT

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

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 or our catalog for detailed protocols and support products.

APPLICATIONS

IFN-γRβ (H-310) is recommended for detection of IFN-γRβ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-γRβ siRNA (h): sc-40094, IFN-γRβ shRNA Plasmid (h): sc-40094-SH and IFN-γRβ shRNA (h) Lentiviral Particles: sc-40094-V.

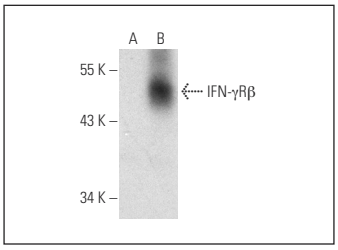
Molecular Weight of IFN-γRβ: 38 kDa.

Positive Controls: IFN-γRβ (h): 293T Lysate: sc-159333.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IFN-γRβ (H-310): sc-30012. Western blot analysis of IFN-γRβ expression in non-transfected: sc-117752 (**A**) and human IFN-γRβ transfected: sc-159333 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. 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.