

IFN- α / β R β (H-300): sc-30014

BACKGROUND

The type I interferons, IFN- α and IFN- β , are a group of structurally and functionally related proteins that are induced by either viruses or double-stranded RNA and are defined by their ability to confer an antiviral state in cells. IFN- α and IFN- β appear to compete with one another for binding to a common cell surface receptor, while immune IFN (IFN- γ) binds to a distinct receptor. This distinct receptor, IFN- α R, is only weakly responsive to type I interferons, in contrast to IFN- α / β R, which binds to and responds effectively to IFN- β and to several of the IFN- α subtypes. IFN- α / β R is expressed as two alternatively spliced transcripts, designated IFN- α / β R α (IFN- α / β R1) and IFN- α / β R β (IFN- α / β R2), both of which are involved in signal transduction and ligand binding.

REFERENCES

1. Branca, A.A., et al. 1981. Evidence that type I and II interferons have different receptors. *Nature* 294: 768-770.
2. Orchansky, P., et al. 1984. Type I and type II interferon receptors. *J. Interferon Res.* 4: 275-282.
3. Novick, D., et al. 1987. The human interferon- γ receptor, purification, characterization and preparation of antibodies. *J. Biol. Chem.* 262: 8483-8487.

CHROMOSOMAL LOCATION

Genetic locus: IFNAR2 (human) mapping to 21q22.1.

SOURCE

IFN- α / β R β (H-300) is a rabbit polyclonal antibody raised against amino acids 27-236 mapping near the N-terminus of IFN- α / β 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.

APPLICATIONS

IFN- α / β R β (H-300) is recommended for detection of IFN- α / β 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFN- α / β R β siRNA (h): sc-40091, IFN- α / β R β shRNA Plasmid (h): sc-40091-SH and IFN- α / β R β shRNA (h) Lentiviral Particles: sc-40091-V.

Molecular Weight of IFN- α subunit: 110 kDa.

Molecular Weight of IFN- β R β subunit: 95-100 kDa.

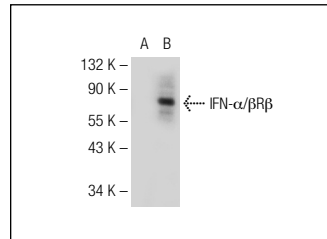
Molecular Weight of IFN- β R β subunit short form: 55 kDa.

Positive Controls: IFN- α / β R β (h2): 293T Lysate: sc-159501, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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- α / β R β (H-300): sc-30014. Western blot analysis of IFN- α / β R β expression in non-transfected: sc-117752 (A) and human IFN- α / β R β transfected: sc-159501 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Vitale, G., et al. 2006. IFN- β is a highly potent inhibitor of gastroenteropancreatic neuroendocrine tumor cell growth *in vitro*. *Cancer Res.* 66: 554-562.
2. Zhang, Q., et al. 2011. Activation of the Ras/Raf/MEK pathway facilitates HCV replication via attenuation of the IFN-JAK-STAT pathway. *J. Virol.* 86: 1544-1554.
3. Han, T., et al. 2015. Set7 facilitates hepatitis C virus replication via enzymatic activity-dependent attenuation of the IFN-related pathway. *J. Immunol.* 194: 2757-2768.

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.



Try IFN- α / β R β (G-4): sc-376273 or IFN- α / β R β (D-6): sc-271105, our highly recommended monoclonal alternatives to IFN- α / β R β (H-300).