

IFN- γ R β (A-11): sc-377291

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. Farrar, M.A., et al. 1993. The molecular cell biology of interferon- γ and its receptor. *Annu. Rev. Immunol.* 11: 571-611.
5. Silvennoinen, O., et al. 1993. Interferon-induced nuclear signalling by Jak protein tyrosine kinases. *Nature* 366: 583-585.
6. Vilcek, J., et al. 1994. Recent progress in the elucidation of interferon- γ actions: molecular biology and biological functions. *Int. Arch. Allergy Immunol.* 104: 311-316.
7. Darnell, J.E., Jr., et al. 1994. Jak-STAT pathways and transcriptional activation in response to IFNs and other extracellular signaling proteins. *Science* 264: 1415-1421.

CHROMOSOMAL LOCATION

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

SOURCE

IFN- γ R β (A-11) is a mouse monoclonal antibody raised against amino acids 28-337 of IFN- γ R β of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IFN- γ R β (A-11) is available conjugated to agarose (sc-377291 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377291 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377291 PE), fluorescein (sc-377291 FITC), Alexa Fluor[®] 488 (sc-377291 AF488), Alexa Fluor[®] 546 (sc-377291 AF546), Alexa Fluor[®] 594 (sc-377291 AF594) or Alexa Fluor[®] 647 (sc-377291 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377291 AF680) or Alexa Fluor[®] 790 (sc-377291 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IFN- γ R β (A-11) is recommended for detection of IFN- γ R β of human origin by Western Blotting (starting dilution 1:100, 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 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.

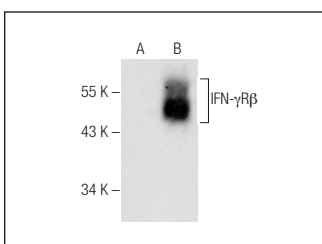
Positive Controls: IFN- γ R β (h): 293T Lysate: sc-159333.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



IFN- γ R β (A-11): sc-377291. Western blot analysis of IFN- γ R β expression in non-transfected: sc-117752 (A) and human IFN- γ R β transfected: sc-159333 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Oleaga-Quintas, C., et al. 2018. A purely quantitative form of partial recessive IFN- γ R2 deficiency caused by mutations of the initiation or second codon. *Hum. Mol. Genet.* 27: 3919-3935.

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.

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