SANTA CRUZ BIOTECHNOLOGY, INC.

IFN-γRβ (MOB-47): sc-12752



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 α

REFERENCES

- 1. Orchansky, P., et al. 1984. Type I and type II interferon receptors. J. Interferon Res. 4: 275-282.
- 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.
- 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.
- Soh, J., et al. 1994. Identification and sequence of an accessory factor required for activation of the human interferon-γ receptor. Cell 76: 793-802.
- Hemmi, S., et al. 1994. A novel member of the interferon receptor family complements functionality of the murine interferon-γ receptor in human cells. Cell 76: 803-810.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: Ifngr2 (mouse) mapping to 16 C3.3.

SOURCE

IFN- $\gamma R\beta$ (MOB-47) is a hamster monoclonal antibody epitope mapping to the purified extracellular domain of IFN- $\gamma R\beta$ of mouse origin.

PRODUCT

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

IFN- $\gamma R\beta$ (MOB-47) is available conjugated to either phycoerythrin (sc-12752 PE) or fluorescein (sc-12752 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

IFN-γRβ (MOB-47) is recommended for detection of IFN-γRβ of mouse 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 flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for IFN- $\gamma R\beta$ siRNA (m): sc-35635, IFN- $\gamma R\beta$ shRNA Plasmid (m): sc-35635-SH and IFN- $\gamma R\beta$ shRNA (m) Lentiviral Particles: sc-35635-V.

Molecular Weight of IFN- $\gamma R\beta$: 38 kDa.

DATA



IFN-γRβ (MOB-47) FITC: sc-12752 FITC. FCM analysis of mouse peripheral blood leukocytes. Black line histogram represents the isotype control, normal Armenian hamster IgG-FITC: sc-2864.

SELECT PRODUCT CITATIONS

- González, J.M., et al. 2005. Expression of a dominant negative IFN-γ receptor on mouse oligodendrocytes. Glia 51: 22-34.
- Numasaki, M., et al. 2007. IL-28 elicits antitumor responses against murine fibrosarcoma. J. Immunol. 178: 5086-5098.
- Ribechini, E., et al. 2017. Novel GM-CSF signals via IFN-γR/IRF-1 and Akt/ mTOR license monocytes for suppressor function. Blood Adv. 1: 947-960.
- Xu, X., et al. 2018. Phosphorylation-mediated IFN-γR2 membrane translocation is required to activate macrophage innate response. Cell 175: 1336-1351.e17.
- Fryxell, D.C., et al. 2019. Eco-evolutionary feedbacks link prey adaptation to predator performance. Biol. Lett. 15: 20190626.
- Shan, X., et al. 2022. Serine metabolism orchestrates macrophage polarization by regulating the IGF1-p38 axis. Cell. Mol. Immunol. 19: 1263-1278.

STORAGE

Store at 4° C, **D0 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.