

IFN- γ R α (GIR-94): sc-12755

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 (GIR-94) is a mouse monoclonal antibody raised against purified IFN- γ R α of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IFN- γ R α (GIR-94) is available conjugated to agarose (sc-12755 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-12755 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-12755 PE), fluorescein (sc-12755 FITC), Alexa Fluor[®] 488 (sc-12755 AF488), Alexa Fluor[®] 546 (sc-12755 AF546), Alexa Fluor[®] 594 (sc-12755 AF594) or Alexa Fluor[®] 647 (sc-12755 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-12755 AF680) or Alexa Fluor[®] 790 (sc-12755 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

IFN- γ R α (GIR-94) 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) and flow cytometry (1 μ g per 1 x 10⁶ cells).

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, AML-193 whole cell lysate: sc-364182 or Raji whole cell lysate: sc-364236.

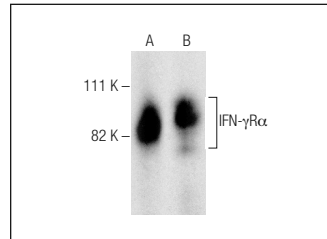
RESEARCH USE

For research use only, not for use in diagnostic procedures.

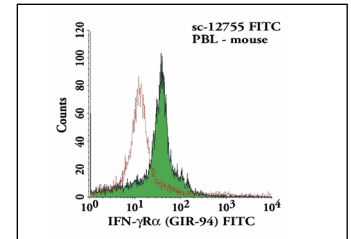
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



IFN- γ R α (GIR-94): sc-12755. Western blot analysis of IFN- γ R α expression in Raji (A) and AML-193 (B) whole cell lysates.



IFN- γ R α (GIR-94) FITC: sc-12755 FITC. FCM analysis of mouse peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG_{2b}-FITC: sc-2857.

SELECT PRODUCT CITATIONS

- Yokota, S., et al. 2003. Measles virus suppresses interferon- α signaling pathway: suppression of Jak1 phosphorylation and association of viral accessory proteins, C and V, with interferon- α receptor complex. *Virology* 306: 135-146.
- Ansari, N.A., et al. 2006. Interferon (IFN)- γ , tumor necrosis factor- α , interleukin-6, and IFN- γ receptor 1 are the major immunological determinants associated with post-kala azar dermal leishmaniasis. *J. Infect. Dis.* 194: 958-965.
- Okada, S., et al. 2007. The novel IFNGR1 mutation 774del4 produces a truncated form of interferon- γ receptor 1 and has a dominant-negative effect on interferon- γ signal transduction. *J. Med. Genet.* 44: 485-491.
- Zhang, S., et al. 2018. Swiprosin-1 deficiency impairs macrophage immune response of septic mice. *JCI Insight* 3 pii: 95396.
- Morey, P., et al. 2018. *Helicobacter pylori* depletes cholesterol in gastric glands to prevent interferon γ signaling and escape the inflammatory response. *Gastroenterology* 154: 1391.e9-1404.e9.
- Shakya, A.K., et al. 2019. Interferon γ inhibits varicella-zoster virus replication in a cell line-dependent manner. *J. Virol.* 27 pii: JVI.00257-19.
- Christie, S., et al. 2020. Covalently immobilizing interferon- γ drives filopodia production through specific receptor-ligand interactions independently of canonical downstream signaling. *Bioconjug. Chem.* E-published.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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