

IFN- β (MIB-8C4.1): sc-53586

BACKGROUND

The genes encoding type I interferons (IFNs), which include 14 IFN- α genes, one IFN- β gene, one IFN- ω (also known as IFN- α II1) gene and a number of IFN- ω pseudogenes, are clustered on human chromosome 9. IFN- α and - β are cytokines that are widely known to induce potent antiviral activity. They exert a variety of other biological effects, including antitumor and immunomodulatory activities, and are increasingly used clinically to treat a range of malignancies, myelodysplasias and autoimmune diseases. IFN- ω is antigenically different from human IFN- α , IFN- β or IFN- γ , but is a component of natural mixtures of IFN species produced by virus-induced leukocytes or Burkitt's lymphoma cells. The type I interferon receptor (IFN- α R) interacts with IFN- α , IFN- β and IFN- ω , and seems to be a multisubunit receptor.

REFERENCES

- Adolf, G.R. 1987. Antigenic structure of human interferon- ω 1 (interferon α II1): comparison with other human interferons. *J. Gen. Virol.* 68: 1669-1676.
- Lim, J.K., et al. 1994. Intrinsic ligand binding properties of the human and bovine α -interferon receptors. *FEBS Lett.* 350: 281-286.
- Hussain, M., et al. 1996. Identification of interferon- α 7, - α 14, and - α 21 variants in the genome of a large human population. *J. Interferon Cytokine Res.* 16: 853-859.
- Mire-Sluis, A.R., et al. 1996. An anti-cytokine bioactivity assay for interferons - α , - β and - ω . *J. Immunol. Methods* 195: 55-61.
- Cutrone, E.C., et al. 1997. Contributions of cloned type I interferon receptor subunits to differential ligand binding. *FEBS Lett.* 404: 197-202.
- Vannucchi, S., et al. 2005. TRAIL is a key target in S-phase slowing-dependent apoptosis induced by interferon- β in cervical carcinoma cells. *Oncogene* 24: 2536-2546.
- Siren, J., et al. 2005. IFN- α regulates TLR-dependent gene expression of IFN- α , IFN- β , IL-28, and IL-29. *J. Immunol.* 174: 1932-1937.
- Molnarfi, N., et al. 2005. The production of IL-1 receptor antagonist in IFN- β -stimulated human monocytes depends on the activation of phosphatidylinositol 3-kinase but not of Stat1. *J. Immunol.* 174: 2974-2980.

CHROMOSOMAL LOCATION

Genetic locus: *Irfb1* (mouse) mapping to 4 C4.

SOURCE

IFN- β (MIB-8C4.1) is a Armenian hamster monoclonal antibody raised against recombinant IFN- β of mouse origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

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

IFN- β (MIB-8C4.1) is available conjugated to agarose (sc-53586 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53586 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53586 PE), fluorescein (sc-53586 FITC), Alexa Fluor[®] 488 (sc-53586 AF488), Alexa Fluor[®] 546 (sc-53586 AF546), Alexa Fluor[®] 594 (sc-53586 AF594) or Alexa Fluor[®] 647 (sc-53586 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53586 AF680) or Alexa Fluor[®] 790 (sc-53586 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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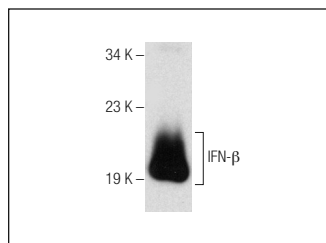
APPLICATIONS

IFN- β (MIB-8C4.1) is recommended for detection of IFN- β of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for IFN- β siRNA (m): sc-39604, IFN- β shRNA Plasmid (m): sc-39604-SH and IFN- β shRNA (m) Lentiviral Particles: sc-39604-V.

Molecular Weight of IFN- β : 20 kDa.

DATA



IFN- β (MIB-8C4.1): sc-53586. Western blot analysis of mouse recombinant IFN- β .

RESEARCH USE

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