IFN-δ (N-19): sc-19064

BACKGROUND

The genes encoding type I interferons (IFNs), which include 14 IFN-α genes, 1 IFN-β gene, 1 IFN-ω (also known as IFN-α Il1) gene, and a number of IFN-ω pseudogenes, are clustered on human chromosome 9. Interferons-α and -β are cytokines that are widely known to induce potent anti-viral activity. IFN-α and -β exert a variety of other biological effects, including anti-tumor 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-αR) interacts with IFN-α, IFN-β and IFN-ω, and seems to be a multisubunit receptor.

REFERENCES

1. Adolf, G.R. 1987. Antigenic structure of human interferon ω1 (interferon α Il1): comparison with other human interferons. J. Gen. Virol. 68: 1669-1676.

2. Lim, J.K., et al. 1994. Intrinsic ligand binding properties of the human and bovine α-interferon receptors. FEBS Lett. 350: 281-286.

3. 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.

4. Mire-Sluis, A.R., et al. 1996. An anti-cytokine bioactivity assay for interferons-α-β and -ω. J. Immunol. Methods 195: 55-61.

5. Cutrone, E.C., et al. 1997. Contributions of cloned type I interferon receptor subunits to differential ligand binding. FEBS Lett. 404: 197-202.

6. Cencic, A. and La Bonnardière, C. 2002. Trophoblastic interferon-γ: current knowledge and possible role(s) in early pig pregnancy. Vet. Res. 33: 139-157.

7. Altmann, S.M., et al. 2003. Molecular and functional analysis of an interferon gene from the zebrafish, Danio rerio. J. Virol. 77: 1992-2002.

SOURCE

IFN-δ (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IFN-δ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-19064 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

IFN-δ (N-19) is recommended for detection of IFN-δ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IFN-δ (N-19) is also recommended for detection of IFN-δ in additional species, including bovine.

Molecular Weight of IFN-δ: 20 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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