

## IFN- $\omega$ (N-13): sc-17703

### BACKGROUND

The genes encoding type I interferons (IFNs), which include 14 IFN- $\alpha$  genes, 1 IFN- $\beta$  gene, 1 IFN- $\omega$  (also known as IFN- $\alpha$  II1) gene, and a number of IFN- $\omega$  pseudogenes, are clustered on human chromosome 9. Interferons- $\alpha$  and - $\beta$  are cytokines that are widely known to induce potent anti-viral activity. IFN- $\alpha$  and - $\beta$  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- $\omega$  is antigenically different from human IFN- $\alpha$ , IFN- $\beta$  or IFN- $\gamma$ , 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- $\alpha$ R) interacts with IFN- $\alpha$ , IFN- $\beta$  and IFN- $\omega$ , and seems to be a multisubunit receptor.

### REFERENCES

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4. Mire-Sluis, A.R., et al. 1996. An anti-cytokine bioactivity assay for interferons- $\alpha$ - $\beta$  and - $\omega$ . J. Immunol. Methods 195: 55-61.
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7. Molnarfi, N., et al. 2005. The production of IL-1 receptor antagonist in IFN- $\beta$ -stimulated human monocytes depends on the activation of phosphatidylinositol 3-kinase but not of STAT1. J. Immunol. 174: 2974-2980.
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### CHROMOSOMAL LOCATION

Genetic locus: IFNW1 (human) mapping to 9p21.3.

### SOURCE

IFN- $\omega$  (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of IFN- $\omega$  of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-17703 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

IFN- $\omega$  (N-13) is recommended for detection of IFN- $\omega$  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).

Suitable for use as control antibody for IFN- $\omega$  siRNA (h): sc-39609, IFN- $\omega$  shRNA Plasmid (h): sc-39609-SH and IFN- $\omega$  shRNA (h) Lentiviral Particles: sc-39609-V.

### 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.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **IFN- $\omega$  (OMG-4): sc-65420**, our highly recommended monoclonal alternative to IFN- $\omega$  (N-13).