

# IFN- $\gamma$ (F3): sc-59993

## BACKGROUND

Interferon (IFN)- $\gamma$  is an antiviral and antiparasitic agent produced by CD4<sup>+</sup>/CD8<sup>+</sup> lymphocytes and natural killer cells that undergo activation by antigens, mitogens or alloantigens. IFN- $\gamma$  production modulates T cell growth and differentiation and inhibits the growth of B cells. Synthesis of IFN- $\gamma$  is inducible by IL-2, FGF and EGF. The active form of IFN- $\gamma$  is a homodimer with each subunit containing six helices. The dimeric structure of human IFN- $\gamma$  is stabilized by non-covalent interactions through the interface of the helices. IFN- $\gamma$  translated precursor is 166 amino acids, including the 23 amino acid secretory sequence. Multiple forms exist due to variable glycosylation and under non-denaturing conditions due to dimers and tetramers.

## REFERENCES

1. Young, H.A., et al. 1995. Role of IFN- $\gamma$  in immune cell regulation. *J. Leukoc. Biol.* 58: 373-381.
2. Dinarello, C.A., et al. 1998. Overview of interleukin-18: more than an IFN- $\gamma$  inducing factor. *J. Leukoc. Biol.* 63: 658-664.
3. Okamura, H., et al. 1998. Regulation of IFN- $\gamma$  production by IL-12 and IL-18. *Curr. Opin. Immunol.* 10: 259-264.
4. Costa-Pereira, A.P., et al. 2002. The antiviral response to IFN- $\gamma$ . *J. Virol.* 76: 9060-9068.
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7. Ellis, T.N., et al. 2004. IFN- $\gamma$  activation of polymorphonuclear neutrophil function. *Immunology* 112: 2-12.
8. Sizemore, N., et al. 2004. Inhibitor of  $\kappa$ B kinase is required to activate a subset of IFN- $\gamma$ -stimulated genes. *Proc. Natl. Acad. Sci. USA* 101: 7994-7998.
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## CHROMOSOMAL LOCATION

Genetic locus: *Ifng* (mouse) mapping to 10 D2.

## SOURCE

IFN- $\gamma$  (F3) is a rat monoclonal antibody raised against IFN- $\gamma$  of mouse origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

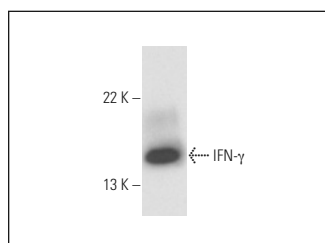
## APPLICATIONS

IFN- $\gamma$  (F3) is recommended for detection of IFN- $\gamma$  of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for IFN- $\gamma$  siRNA (m): sc-39607, IFN- $\gamma$  shRNA Plasmid (m): sc-39607-SH and IFN- $\gamma$  shRNA (m) Lentiviral Particles: sc-39607-V.

Molecular Weight of IFN- $\gamma$ : 20-25 kDa.

## DATA



IFN- $\gamma$  (F3): sc-59993. Western blot analysis of mouse recombinant IFN- $\gamma$ .

## SELECT PRODUCT CITATIONS

1. Aydemir, E.A., et al. 2011. *Glycyrrhiza flavescens subsp. antalyensis* exerts antiproliferative effects on melanoma cells via altering TNF- $\alpha$  and IFN- $\alpha$  levels. *Food Chem. Toxicol.* 49: 820-828.
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4. Simsek, E., et al. 2017. Caspase-mediated apoptotic effects of *Ebenus boissieri* barbey extracts on human cervical cancer cell line HeLa. *Pharmacogn. Mag.* 13: 254-259.
5. Liu, P., et al. 2020. Baicalin suppresses Th1 and Th17 responses and promotes Treg response to ameliorate sepsis-associated pancreatic injury via the RhoA-ROCK pathway. *Int. Immunopharmacol.* 86: 106685.
6. Lunardon, G., et al. 2022. Set7 deletion attenuates isoproterenol-induced cardiac fibrosis and delays cardiac dysfunction. *Clin. Sci.* E-published.

## 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) for detailed protocols and support products.