

IFN- γ (C-19): sc-1377

BACKGROUND

Interferon (IFN)- γ is an antiviral and antiparasitic agent produced by CD4⁺/CD8⁺ lymphocytes and natural killer cells that undergo activation by antigens, mitogens or alloantigens. IFN- γ production modulates T cell growth and differentiation and inhibits the growth of B cells. Synthesis of IFN- γ is inducible by IL-2, FGF and EGF. The active form of IFN- γ is a homodimer with each sub-unit containing six helices. The dimeric structure of human IFN- γ is stabilized by non-covalent interactions through the interface of the helices. IFN- γ 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- γ 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- γ inducing factor. *J. Leukoc. Biol.* 63: 658-664.
3. Okamura, H., et al. 1998. Regulation of IFN- γ production by IL-12 and IL-18. *Curr. Opin. Immunol.* 10: 259-264.

CHROMOSOMAL LOCATION

Genetic locus: IFNG (human) mapping to 12q15.

SOURCE

IFN- γ (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IFN- γ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1377 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IFN- γ (C-19) is recommended for detection of precursor and mature IFN- γ of 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IFN- γ siRNA (h): sc-39606, IFN- γ shRNA Plasmid (h): sc-39606-SH and IFN- γ shRNA (h) Lentiviral Particles: sc-39606-V.

Molecular Weight of IFN- γ : 20-25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CCRF-CEM cell lysate: sc-2225 or Daudi cell lysate: sc-2415.

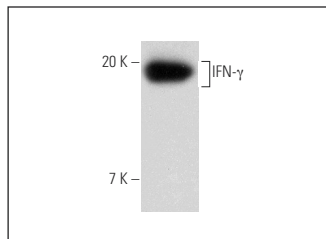
RESEARCH USE

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

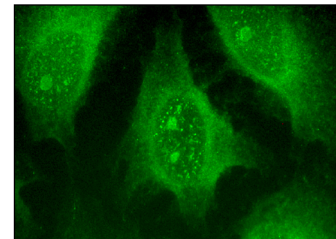
STORAGE

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

DATA



IFN- γ (C-19): sc-1377. Western blot analysis of human recombinant IFN- γ .



IFN- γ (C-19): sc-1377. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Royuela, M., et al. 2000. Interferon- γ and its functional receptors over-expression in benign prostatic hyperplasia and prostatic carcinoma: parallelism with c-myc and p53 expression. *Eur. Cytokine Netw.* 11: 119-127.
2. Lu, Y., et al. 2007. Immunological protection against HPV16 E7-expressing human esophageal cancer cell challenge by a novel HPV16-E6/E7 fusion protein based-vaccine in a Hu-PBL-SCID mouse model. *Biol. Pharm. Bull.* 30: 150-156.
3. García-Tuñón, I., et al. 2007. Influence of IFN- γ and its receptors in human breast cancer. *BMC Cancer* 7: 158.
4. Airolidi, I., et al. 2007. Endogenous IL-12 triggers an antiangiogenic program in melanoma cells. *Proc. Natl. Acad. Sci. USA* 104: 3996-4001.
5. Vieira, R.P., et al. 2009. Exercise reduces effects of creatine on lung. *Int. J. Sports Med.* 30: 684-690.
6. de Araujo, E., et al. 2011. Death ligand TRAIL, secreted by CD1a⁺ and CD14⁺ cells in blister fluids, is involved in killing keratinocytes in toxic epidermal necrolysis. *Exp. Dermatol.* 20: 107-112.
7. Collaço Rde, C., et al. 2012. Protection by *Mikania laevigata* (guaco) extract against the toxicity of *Philodryas olfersii* snake venom. *Toxicon* 60: 614-622.
8. Di Carlo, E., et al. 2013. Mechanisms of the antitumor activity of human V γ 9V δ 2 T cells in combination with zoledronic acid in a preclinical model of neuroblastoma. *Mol. Ther.* 21: 1034-1043.



Try **IFN- γ (E-10): sc-373727** or **IFN- γ (3F1E3): sc-32813**, our highly recommended monoclonal alternatives to IFN- γ (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IFN- γ (E-10): sc-373727**.