

IFN- γ (DB-14): sc-59992

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 subunit 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

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- Halfter, U.M., et al. 2005. IFN- γ -dependent tyrosine phosphorylation of MEKK4 via PYK2 is regulated by Annexin II and SHP2 in keratinocytes. *Biochem. J.* 388: 17-28.

CHROMOSOMAL LOCATION

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

SOURCE

IFN- γ (DB-14) is a mouse monoclonal antibody raised against IFN- γ of rat origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

IFN- γ (DB-14) is recommended for detection of IFN- γ of mouse and rat 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- γ siRNA (m): sc-39607, IFN- γ shRNA Plasmid (m): sc-39607-SH and IFN- γ shRNA (m) Lentiviral Particles: sc-39607-V.

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

Positive Controls: rat brain extract: sc-2392.

SELECT PRODUCT CITATIONS

- Kim, H.J., et al. 2013. Inhibition of endoplasmic reticulum stress alleviates lipopolysaccharide-induced lung inflammation through modulation of NF κ B/HIF-1 α signaling pathway. *Sci. Rep.* 3: 1142.
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- Liu, J., et al. 2019. Improving acute cardiac transplantation rejection therapy using ultrasound-targeted FK506-loaded microbubbles in rats. *Biomater. Sci.* 7: 3729-3740.

STORAGE

Store at 4 $^{\circ}$ 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.