SANTA CRUZ BIOTECHNOLOGY, INC.

IFN-γ (F14): sc-52682



BACKGROUND

Interferon (IFN)-y is an antiviral and antiparasitic agent produced by CD4+/ CD8+ lymphocytes and natural killer cells that undergo activation by antigens, mitogens or alloantigens. IFN-y production modulates T cell growth and differentiation and inhibits the growth of B cells. Synthesis of IFN-y 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-y 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. 20 kDa and 25 kDa forms exist due to variable glycosylation; 40-60 kDa forms are observable under non-denaturing conditions as 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-v 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.
- 4. Costa-Pereira, A.P., et al. 2002. The antiviral response to IFN-y. J. Virol. 76: 9060-9068.
- 5. Zika, E., et al. 2003. Histone deacetylase 1/mSin3A disrupts IFN-y-induced CIITA function and major histocompatibility complex class II enhanceosome formation. Mol. Cell. Biol. 23: 3091-3102.
- 6. Schroder, K., et al. 2004. IFN-γ: an overview of signals, mechanisms and functions. J. Leukoc. Biol. 75: 163-189.
- 7. Ellis, T.N., et al. 2004. IFN-γ activation of polymorphonuclear neutrophil function. Immunology 112: 2-12.
- 8. Sizemore, N., et al. 2004. Inhibitor of KB kinase is required to activate a subset of IFN-γ-stimulated genes. Proc. Natl. Acad. Sci. USA 101: 7994-7998.
- 9. Halfter, U.M., et al. 2005. IFN-y-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 (human) mapping to 12g15.

SOURCE

IFN-y (F14) is a mouse monoclonal antibody raised against IFN-y of human origin.

PRODUCT

Each vial contains 100 μ g lgG₁ 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-y (F14) is recommended for detection of both recombinant and native IFN-y of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with other cytokines.

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

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See IFN-γ (E-10): sc-373727 for IFN-γ antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor[®] 647.