

IL-12A p35 (C-19): sc-1280

BACKGROUND

Interleukin-12 (IL-12), also known as natural killer cell stimulatory factor (NKSF) and cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine that affects both natural killer (NK) cells and T lymphocytes. IL-12 is a heterodimer of subunit IL-12A p35 and subunit IL-12B p40 that is secreted by a wide variety of antigen presenting cells (APCs), including phagocytes, B cells and Langerhans cells. It is involved in mediating many aspects of antiviral immunity. In addition to stimulating T helper cell development, IL-12 is a potent inducer of interferon- γ (IFN- γ) production by T cells and NK cells. Increased IL-12 production is a consequence of EBV, CMV, LCMV or HSV infection. While it is unclear what separate effects can be attributed to each IL-12 subunit, evidence suggests IL-12A p35 is the biologically active component responsible for signal transduction via the IL-12 receptor.

REFERENCES

- Gubler, U., et al. 1991. Coexpression of two distinct genes is required to generate secreted bioactive cytotoxic lymphocyte maturation factor. Proc. Natl. Acad. Sci. USA 88: 4143-4147.
- Chizzonite, R., et al. 1991. IL-12: monoclonal antibodies specific for the 40 kDa subunit block receptor binding and biologic activity on activated human lymphoblasts. J. Immunol. 147: 1548-1556.
- Davis, S., et al. 1993. LIFR β and gp130 as heterodimerizing signal transducers of the tripartite CNTF receptor. Science 260: 1805-1808.
- Ma, X., et al. 1996. The interleukin-12 p40 gene promoter is primed by interferon- γ in monocytic cells. J. Exp. Med. 183: 147-157.
- Kanangat, S., et al. 1996. Herpes simplex virus type 1-mediated upregulation of IL-12 (p40) mRNA expression. Implications in immunopathogenesis and protection. J. Immunol. 156: 1110-1116.
- Orange, J.S., et al. 1996. An absolute and restricted requirement for IL-12 in natural killer cell IFN- γ production and antiviral defense. Studies of natural killer and T cell responses in contrasting viral infections. J. Immunol. 156: 1138-1142.
- Kang, K., et al. 1996. IL-12 synthesis by human Langerhans cells. J. Immunol. 156: 1402-1407.

CHROMOSOMAL LOCATION

Genetic locus: IL12A (human) mapping to 3q25.33.

SOURCE

IL-12A p35 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IL-12A p35 of human origin.

STORAGE

Store at 4° 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 or our catalog for detailed protocols and support products.

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-1280 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-12A p35 (C-19) is recommended for detection of IL-12A p35 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).

IL-12A p35 (C-19) is also recommended for detection of IL-12A p35 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IL-12A p35 siRNA (h): sc-39638, IL-12A p35 shRNA Plasmid (h): sc-39638-SH and IL-12A p35 shRNA (h) Lentiviral Particles: sc-39638-V.

Molecular Weight of IL-12A p35: 35 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233.

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.

RESEARCH USE

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



MONOS
Satisfation
Guaranteed

Try **IL-12A p35/p70 (B-T21): sc-65323**, our highly recommended monoclonal alternative to IL-12A p35 (C-19).