

IL-12A p35 (C18.2): sc-517382

BACKGROUND

Interleukin-12, or 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

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2. 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.
3. Davis, S., et al. 1993. LIFR β and gp130 as heterodimerizing signal transducers of the tripartite CNTF receptor. Science 260: 1805-1808.
4. 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.
5. 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.
6. Kang, K., et al. 1996. IL-12 synthesis by human Langerhans cells. J. Immunol. 156: 1402-1407.

CHROMOSOMAL LOCATION

Genetic locus: Il12a (mouse) mapping to 3 E1.

SOURCE

IL-12A p35 (C18.2) is a mouse monoclonal antibody raised against recombinant IL-12 p70 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain 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.

PROTOCOLS

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

APPLICATIONS

IL-12A p35 (C18.2) is recommended for detection of IL-12A p35 of mouse and rat origin by flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for IL-12A p35 siRNA (m): sc-39639, IL-12A p35 shRNA Plasmid (m): sc-39639-SH and IL-12A p35 shRNA (m) Lentiviral Particles: sc-39639-V.

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

Molecular Weight of IL-12A p70: 75 kDa.

RESEARCH USE

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