

IL-12 (hBA-FL): sc-4605

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 has multiple effects on both natural killer (NK) cells and T lymphocytes. IL-12 is a 75 kDa heterodimer composed of a 35 kDa subunit (IL-12A p35) and a 40 kDa subunit (IL-12B p40) that is secreted by a wide variety of antigen presenting cells (APCs), including phagocytes, B cells and Langerhans cells. IL-12 is integrally 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. An increase of IL-12 production has been shown to be a consequence of infection with EBV, CMV, LCMV and HSV. It is not clear what separate effects can be attributed to each IL-12 subunit; however, there is evidence that IL-12A p35 is the biologically active component and may be responsible for signal transduction via the IL-12 receptor.

REFERENCES

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SOURCE

IL-12 (hBA-FL) is produced in *E. coli* as 49 kDa biologically active protein corresponding to the full length IL-12 p35 subunit of human origin.

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: IL12A (human) mapping to 3p12-q13.2, IL12B (human) mapping to 5q31.1-q33.1; Il2b (mouse) mapping to 3 E1, Il2b (mouse) mapping to 11 A5-B2.

PRODUCT

IL-12 (hBA-FL) is purified from bacterial lysates (>98%); supplied as 50 μ g purified protein.

BIOLOGICAL ACTIVITY

IL-12 (hBA-FL) is biologically active as determined by the stimulation of the full length IL-12 p35 subunit of IFN- γ production by murine splenocytes co-stimulated with IL-12.

Expected ED₅₀: <0.1 ng/ml.

Specific Activity: Greater than 1 x 10⁷ units/mg.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

PROTOCOLS

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