BACKGROUND

The interleukins (ILs) are a broad family of well characterized cytokines, primarily of hematopoietic cell origin. As new cytokines are molecularly characterized, they are assigned an IL number to maintain a standard nomenclature. ILs are secreted by immune cells (mainly macrophages, B cells or T cells) that regulate a wide range of immune system functions. The functions of different ILs vary from regulating inflammatory and immune responses, functioning as autocrine factor and regulating and/or inhibiting other ILs. IL-12 is secreted by macrophages and human B-lymphoblastoid cells in response to antigenic stimulation. It is responsible for the differentiation of naive CD4+ T cells into type 1 helper T cells that produce interferon-γ (IFN-γ). It also activates production of tumor necrosis factor α (TNFα) from T and natural killer (NK) cells, and it inhibits IL-4 mediated suppression of IFN-γ. IL-12 also has anti-angiogenic activity, since the production of IFN-γ increases the production of inducible protein-10 (IP-10).

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: Il12a (mouse) mapping to 3 E1, Il12b (mouse) mapping to 11 B1.1.

SOURCE

IL-12 (500-M59) is a rat monoclonal antibody raised against recombinant IL-12 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IL-12 (500-M59) is recommended for detection of IL-12 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of IL-12: 70 kDa.

STORAGE

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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.