Interleukin-13 Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: IL-13, ALRH

Cat. No.:

RBG10013002	(2 µg)
RBG10013010	(10 µg)
RBG10013100	(100 µg)

Description

IL-13 is an immunoregulatory cytokine produced primarily by activated Th2 cells, and also by mast cells and NK cells. Targeted deletion of IL-13 in mice resulted in impaired Th2 cell development and indicated an important role for IL-13 in the expulsion of gastrointestinal parasites. IL-13 exerts anti-inflammatory effects on monocytes and macrophages and it inhibits the expression of inflammatory cytokines such as IL-1beta, TNF-alpha, IL-6 and IL-8. IL-13 has also been shown to enhance B cell proliferation and to induce isotype switching, resulting in increased production of IgE. Blocking of IL-13 activity inhibits the pathophysiology of asthma. Human and murine IL-13 are cross-species reactive. Recombinant Human IL-13 is a 12.6 kDa protein consisting of 115 amino acid residues.

Introduction to the Molecule

Interleukin-13 (IL-13) is a Th2-type cytokine, secreted from CD4(+) T cells, mast cells, basophils and eosinophils. It is an immunoregulatory cytokine. It has become evident that IL-13 is a key mediator in the pathogenesis of allergic inflammation. The important role of IL-13 in the pathogenesis of bronchial asthma as well as other allergic diseases has been recognized. Additionally, IL-13 plays a major role in various other inflammatory diseases including cancer.

Research topic

Animal studies, Cytokines and chemokines and related molecules

Amino Acid Sequence

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MSPGPVPPST ALRELIEELV NITQNQKAPL CNGSMVWSIN LTAGMYCAAL ESLINVSGCS AIEKTQRMLS GFCPHKVSAG
QFSSLHVRDT KIEVAQFVKD LLLHLKKLFR EGRFN
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Source

E. coli

Purity

98%

Biological Activity

The ED_{50} as determined by the dose-dependent proliferation of TF-1 cells was 1.0 ng/ml, corresponding to a specific activity of 1×10^6 units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Note: Slow to dissolve. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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