Interleukin-13, 109 amino acids, rat recombinant (rrIL-13)

Catalog No: 97602
Lot No: XXXXX
Source: *E. coli*
Synonyms: NC300, ALRH, BHR1, P600, IL-13

Background

IL13 is an immunoregulatory cytokine produced primarily by activated Th2 cells. IL-13 is involved in several stages of B-cell maturation and differentiation. It up-regulates CD23 and MHC class II expression, and promotes IgE isotype switching of B cells. This cytokine down-regulates macrophage activity, thereby inhibits the production of pro-inflammatory cytokines and chemokines. This cytokine is found to be critical to the pathogenesis of allergen-induced asthma but operates through mechanisms independent of IgE and eosinophils. This gene, IL3, IL5, IL4, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL4.

Description

Interleukin-13 rat recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 109 amino acids and having a molecular mass of 11.9 kDa. IL-13 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein (1 mg/ml) was lyophilized in PBS, pH7.4.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-13 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-13, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL13 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95% as determined by SDS-PAGE.

Amino Acid Sequence

VRRSTSPPVA LRELIEELSN ITQDQKTSLC NSSIVWSVDI TAGGFCAALE SLTNISSCNA IHRTQRILNG LCNQKASDVA SSPPDTKIEV AQFISKLLNY SKQLFRYGH

Activity

ED50 range = 40 ng/ml, corresponding to a specific activity of >25,000 IU/mg as determined by the dose dependent proliferation of human TF-1 cells. Optimal concentration for individual application should be determined by a dose response assay.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.