

Recombinant Human, IL13 / Interleukin-13,

Animal Free & Carrier Free

Cat #: C-CYP141

Size: 5µg, 20µg, 100µg, 500µg, 1mg

Shipping: Blue Ice

Product Overview

Interleukin 13 (IL-13) is a protein that in humans is encoded by the IL13 gene. IL-13 was first cloned in 1993 and is located on chromosome 5q31 with a length of 1.4kb. It has a mass of 13 kDa and folds into 4 alpha helical bundles. The secondary structural features of IL-13 are similar to that of Interleukin 4 (IL-4); however it only has 25% sequence homology to IL-4 and is capable of IL-4 independent signaling. IL-13 is a cytokine secreted by T helper type 3 / 4 2 (Th2) cells, CD4 cells, Natural killer T cell, Mast cell, Basophil cells, Eosinophil cells and Nuocyte cells. Interleukin-13 is a central regulator in IgE synthesis, goblet cell hyperplasia, mucus hypersecretion, airway hyperresponsiveness, fibrosis and chitinase up-regulation. It is a mediator of allergic inflammation and different diseases including asthma.

Product Information

Source: *Escherichia Coli*.

Purity: >95% as determined by SDS-PAGE. Ni-NTA chromatography.

Biological Activity: Measure by its ability to induce TF- 1 cells proliferation. The ED₅₀ for this effect is < 0.8 ng/mL. The specific activity of recombinant human IL-13 is approximately >1 x10⁶ IU/mg.

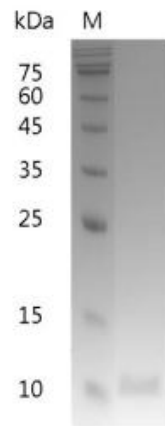
Endotoxin: <0.01 EU per 1 µg of the protein by the LAL method.

Amino acid sequence:

MGPVPPSTALRELIEELVNITQNQKAPLCNGSMVWSINLTAGMYCAALESLINVSGCSAIEKTQRMLSGFCPHKVSAGQFSSLHVRDTKIEV

AQFVKDLLLHLKFLFREGRFN with polyhistidine tag at the C-terminus

Formulation: Lyophilized from a sterile filtered aqueous solution in 1×PBS, pH 8.0.



SDS-PAGE analysis of recombinant human IL-13

Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H₂O. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.
3. The reconstituted solution can be stored at 2-8°C for up to 1 week.
4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 µg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.