

Recombinant Human Interleukin-13

#R00051

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Human Interleukin-13 (IL-13) is expressed by the IL13 gene located on the chromosome 5 and secreted by many cell types, especially T helper type 2 (Th2) cells. The high solution from of IL-13 reported to be a monomer with two internal disulfide bonds that contribute to a bundled four α -helix configuration. 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-1 β , TNF- α , 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. Human, mouse and rat IL-3 share low homology, but have cross species activity.

AA Sequence

GPVPPSTALRELIEELVNITQNQKAPLCNGSMVWSINL
TAGMYCAALESLINVSGCSAIEKTQRMMSGFCPHKVS
AGQFSSLHVRDTKIEVAQFVKDLLLLHLKKLFREGFRN

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 20 mM HCl to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Accession	P35225
GeneID	3596
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 12.5 kDa, a single non-glycosylated polypeptide chain containing 112 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human TF-1 cells is less than 1 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁶ IU/mg.
Physical	Sterile Filtered White Lyophilized

Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4 with 5 % trehalose.
Endotoxin	Less than 1 EU/µg of rHuIL-13 as determined by LAL method.