

Recombinant Human Interleukin-13, Variant

#R00052

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. IL-13 is a 132 amino acid protein containing a proposed 20 amino acid signal peptide, and shares approximately 30% amino acid sequence homology to human IL-4. Additionally, the two cytokines exhibit overlapping biological activities. Human IL-13 is produced by activated Th0, Th1-like Th2-like and CD8 T cells. Similarly to IL-4, IL-13 has multiple effects on the differentiation and functions of monocytes/macrophages. IL-13 can suppress the cytotoxic functions of monocytes/macrophages. IL-13 variant is a natural variant of IL-13 and has a Q instead of R110 of wild type, which associated with increased risk for asthma development and at homozygosity associated with higher levels of serum total IgE in some allergic rhinitis patients.

AA Sequence

GPVPPSTALRELIEELVNITQNQKAPLCNGSMVWSINL
TAGMYCAALESLINVSGCSAIEKTQRM LSGFCPHKVS
AGQFSSLHVRDTKIEVAQFVKDLLLLHLKKLFREGQFN

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -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 12.3 kDa, a single non-glycosylated polypeptide chain containing 112 amino acids, with a substitution of Q for R at position 110 compared with the wild type IL-13.
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 0.5 ng/ml, corresponding to a specific

	activity of $> 2.0 \times 10^6$ IU/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.2, with 5 % trehalose, 0.02 % Tween-20.
Endotoxin	Less than 1 EU/ μ g of rHuIL-13, Variant as determined by LAL method.