

Recombinant Human Interleukin-5

#R00040

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

The IL-5 gene is located on chromosome 5 in humans, in close proximity to the genes encoding IL-3, IL-4, and granulocyte-macrophage colony-stimulating factor (GM-CSF), which are often co-expressed in TH2 cells. Through binding to the IL-5 receptor, IL-5 stimulates B cell growth and increases immunoglobulin secretion. It is also a key mediator in eosinophil activation. Interleukin-5 has long been associated with the cause of several allergic diseases including allergic rhinitis and asthma. IL-5 is a 115-amino acid (in human, 133 in the mouse) -long TH2 cytokine that is part of the hematopoietic family. Unlike other members of this cytokine family (namely IL-3 and GM-CSF), this glycoprotein in its active form is a homodimer.

AA Sequence

MIPT E I P T S A L V K E T L A L L S T H R T L L I A N E T L R I P V P V H K
N H Q L C T E E I F Q G I G T L E S Q T V Q G G T V E R L F K N L S L I K K

Y I D G Q K K K C G E E R R R V N Q F L D Y L Q E F L G V M N T E W I I E
S

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

Synonyms	B-cell differentiation factor I, Eosinophil differentiation factor, TRF
Accession	P05113
GeneID	3567
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 26.5 kDa, a disulfide-linked homodimeric protein containing two 116 amino acids.
Purity	> 98 % 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 0.1 ng/ml,

	corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20mM PB, pH 7.5, 3 % trehalose, 0.1 % Tween-80.
Endotoxin	Less than 1 EU/ μ g of rHuIL-5 as determined by LAL method.