

Recombinant Rat Interleukin-13, 113a.a.

#R00309

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

Interleukin-13 (IL-13) is expressed by the IL13 gene and secreted by many cell types, especially T helper type 2 (Th2) cells. The high solution form 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-1β, 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. Mature rat IL-13 shares 59 %, 75 %, and 60 % amino acid sequence identity with human, mouse, and rhesus IL-13, respectively.

AA Sequence

TPGPVRRSTSPVALRELIEELSNITQDQKTSLCNSS
MVWSVDLTAGGFCAALESNTNISSCNAIHRTQRILNGL
CNQKASDVASSPPDTKIEVAQFISKLLNYSKQLFRYG
H

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	T-cell Activation Protein P600
Accession	P42203
GeneID	116553
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 12.3 kDa, a single non-glycosylated polypeptide chain containing 113 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 5 ng/ml, corresponding to a specific activity of > 2.0 × 10 ⁵ IU/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, pH 7.4, 5 % trehalose.
Endotoxin	Less than 1 EU/µg of rRtIL-13, 113a.a. as determined by LAL method.