

Recombinant Rat Interleukin-13

#R00308

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

MPVRRSTSPVALRELIEELSNITQDQKTSLCNSSMV
WSVDLTAGGFCAALESLTNISSCNAIHRTQRILNGLCN
QKASDVASSPPDTKIEVAQFISKLLNYSKQLFRYGH

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 12.2 kDa, a single non-glycosylated polypeptide chain containing 111 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 4 ng/ml, corresponding to a specific activity of > 2.5 × 10 ⁵ 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.
Endotoxin	Less than 1 EU/µg of rRtIL-13 as determined by LAL method.