Recombinant Rat Il13 protein

Cat. No. Il13-580R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Il13 protein (113 a.a.) was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	113
Description	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 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-1beta, TNF-alpha, 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.
Form	Lyophilized from a 0.2μm filtered concentrated solution in 2 × PBS, pH 7.4, 5 % trehalose.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using human TF-1 cells is less than 5 ng/ml, corresponding to

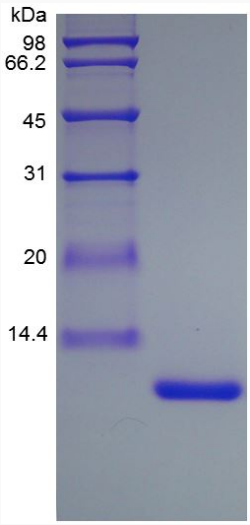
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	a specific activity of > 2.0 × 10^5 IU/mg.
Molecular Mass	Approximately 12.3 kDa, a single non-glycosylated polypeptide chain containing 113 amino acids.
AA Sequence	TPGPVRRSTSPPVALRELIEELSNITQDQKTSLCNSSMVWSVDLTAGGFCAALESLT NISSCNAIHRTQRILNGLCNQKASDVASSPPDTKIEVAQFISKLLNYSKQLFRYGH
Endotoxin	Less than 1 EU/μg of rRtIL-13, 113a.a. as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Il13
Official Symbol	Il13
Synonyms	T-cell Activation Protein P600

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Gene ID	116553
mRNA Refseq	NM_053828
Protein Refseq	NP_446280
UniProt ID	P42203
SDS-PAGE of Il13-580R	

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