

## Recombinant Rat IL13 protein

Cat. No. IL13-87R Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Rat IL13 protein (111 a.a.) was expressed in Escherichia coli.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>ProteinLength</b>	111
<b>Description</b>	<p>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 <math>\alpha</math>-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-1<math>\beta</math>, TNF-<math>\alpha</math>, 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.</p>
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 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 $\times$

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	10 <sup>5</sup> IU/mg.
<b>Molecular Mass</b>	Approximately 12.2 kDa, a single non-glycosylated polypeptide chain containing 111 amino acids.
<b>AA Sequence</b>	MPVRRSTSPVALRELIEELSINITQDQKTSLCNSSMVWSVDLTAGGFCAALESNTNIS SCNAIHRTQRILNGLCNQKASDVASSPPDTKIEVAQFISKLLNYSKQLFRYGH
<b>Endotoxin</b>	Less than 1 EU/μg of rRtIL-13 as determined by LAL method.
<b>Purity</b>	>97% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	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.
<b>Reconstitution</b>	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

<b>Gene Name</b>	IL13
<b>Official Symbol</b>	IL13
<b>Synonyms</b>	T-cell Activation Protein P600

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Gene ID	116553
mRNA Refseq	NM_053828
Protein Refseq	NP_446280
UniProt ID	P42203

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