



## IL-13 Recombinant Protein

CATALOG NUMBER: 40-469

### Specifications

|                             |   |
|-----------------------------|---|
| <b>SPECIES:</b>             | Rat   |
| <b>SOURCE SPECIES:</b>      | E. coli   |
| <b>SEQUENCE:</b>            | VRRSTSPVVA LRELIEELSN ITQDQKTS LC NSSIVWSVDI TAGGFCAALE SLTNISSCNA IHRTQRILNG<br>LCNQKASDVA SSPPDTKIEV AQFISKLLNY SKQLFRYGH   |
| <b>TESTED APPLICATIONS:</b> |   |
| <b>BIOLOGICAL ACTIVITY:</b> | The ED50 was determined by the dose - dependant stimulation of the proliferation of human TF - 1 cells is < 40 ng/mL, corresponding to a specific activity of > 2.5 x 10 <sup>4</sup> units/mg. |

### Properties

|                            |  |
|----------------------------|--|
| <b>PURITY:</b>             | Greater than 98% by SDS-PAGE gel and HPLC analyses.<br><br>Endotoxin level is less than 0.1 ng per ug (1EU/ug).  |
| <b>PHYSICAL STATE:</b>     | Lyophilized  |
| <b>STORAGE CONDITIONS:</b> | The lyophilized IL-13 recombinant protein is stable for at least 2 years from date of receipt at -20°C.<br>Reconstituted IL-13 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C.<br>As with any protein, exposing IL-13 recombinant protein to repeated freeze / thaw cycles is not recommended.<br>When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature. |

### Additional Info

|                         |  |
|-------------------------|--|
| <b>ALTERNATE NAMES:</b> | Il-13, Interleukin-13, T-cell activation protein P600, IL-13 |
| <b>ACCESSION NO.:</b>   | NP_446280.1  |
| <b>PROTEIN GI NO.:</b>  | 16758680   |

### Background

IL-13 is an immunoregulatory cytokine produced primarily by activated Th2 cells, and also by mast cells and NK cells. 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. Blocking of IL-13 activity inhibits the pathophysiology of asthma. Human and murine IL-13 is cross-species reactive. Recombinant rat IL-13 is an 11.9 kDa protein consisting of 109 amino acid residues.

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