

## Recombinant Rat Il4 protein

Cat. No. Il4-577R Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Rat Il4 protein was expressed in Escherichia coli.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>ProteinLength</b>	125
<b>Description</b>	Interleukin-4 (IL-4) is a pleiotropic cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells and produced by mast cells, activated T cells and bone marrow stromal cells. It has many biological roles, including the stimulation of activated B-cell and T-cell proliferation, and the differentiation of CD4+ T-cells into Th2 cells. IL-4 can enhance both secretion and cell surface expression of IgE and IgG1 and also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. The rat IL-4 shares about 40 % ~ 45 % a.a. sequence identity with human, mouse, rhesus macaque IL-4 and they are species-specific in their activities.
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4, 5% trehalose.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using rat splenocytes is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0 × 10 <sup>6</sup> IU/mg.
<b>Molecular Mass</b>	Approximately 14.0 kDa, a single non-glycosylated polypeptide chain containing 125

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	amino acids.
<b>AA Sequence</b>	HGCNDSPLREIINTLNQVTEKGTPTCEMFVPDVLTA TRNTTENELICRASRVLRKFYF PRDVPPCLKNKSGVLGELRKLCRGVSGLNLSRCTVNESTLTTLKDFLESLSILRG KYLQSCTSMS
<b>Endotoxin</b>	Less than 1 EU/μg of rRtIL-4 as determined by LAL method.
<b>Purity</b>	>95% 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>	IL4
<b>Official Symbol</b>	IL4
<b>Synonyms</b>	B-cell IGG Differentiation Factor, B-cell Growth Gactor 1, BSF-1, Lymphocyte Stimulatory Factor 1
<b>Gene ID</b>	287287

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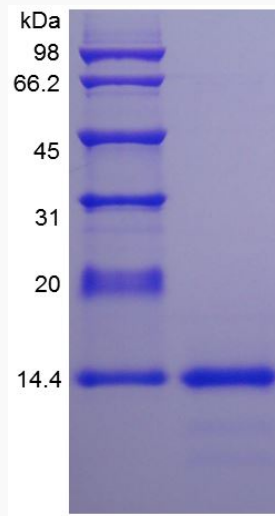
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mRNA Refseq [NM\\_201270](#)

Protein Refseq [NP\\_958427](#)

UniProt ID [P20096](#)

SDS-PAGE of II4-577R



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