

Recombinant Rat IL4 protein

Cat. No. IL4-577R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat IL4 protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	125
Description	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.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 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 rat splenocytes is less than 1.0 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^6$ IU/mg.
Molecular Mass	Approximately 14.0 kDa, a single non-glycosylated polypeptide chain containing 125

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

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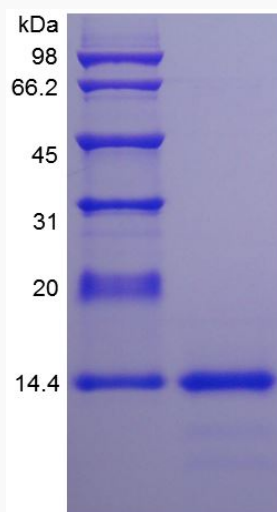
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mRNA Refseq NM_201270

Protein Refseq NP_958427

UniProt ID P20096

SDS-PAGE of IL4-
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