

Recombinant Mouse Il4 protein

Cat. No. Il4-11M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Il4 protein was expressed in Escherichia coli.
Species	Mouse
Source	E.coli
ProteinLength	121
Description	Interleukin-4 (IL-4) is a pleiotropic cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. It is 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. In addition, IL-4 enhances 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 mouse IL-4 has a compact, globular fold, stabilised by 3 disulphide bonds and contains 121 amino acids residues which is a single non-glycosylated polypeptide. The human IL-4 shares about 40% aa sequence identity with mouse/rat IL-4 and they are species-specific in their activities.
Form	Lyophilized from a 0.2µm filtered solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by the dose-dependant proliferation of Murine HT-2 cells is less than 2 ng/ml, corresponding to a Specific Activity of $> 5 \times 10^5$ IU/mg.

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Molecular Mass	Approximately 13.5 kDa, a single non-glycosylated polypeptide chain containing 121 amino acids.
AA Sequence	MHIHGCDKNHLREIIGILNEVTGEGTPCTEMDVPNVLTATKNTTESELVCRASKVLRIFYLKHGKTPCLKKNSSVLMELQRLFRAFRCCLDSSISCTMNESKSTSLKDFLESLSKSIMQMDYS
Endotoxin	Less than 1 EU/g of rMuIL-4 as determined by LAL method.
Purity	>97% 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	IL4; interleukin 4; interleukin-4; IGG1 induction factor; B-cell growth factor 1; B-cell stimulatory factor 1; lymphocyte stimulatory factor 1; B-cell IgG differentiation factor; IL-4; BSF-1;

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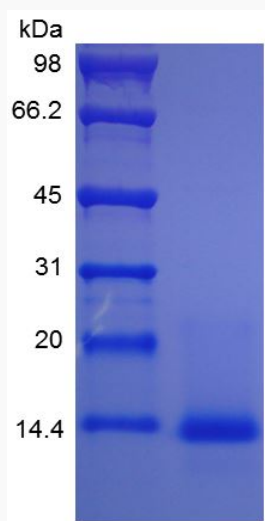
Gene ID 16189

mRNA Refseq NM_021283

Protein Refseq NP_067258

UniProt ID P07750

SDS-PAGE of IL4-11M



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