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# Recombinant Mouse Interleukin-4/IL-4 Protein

Catalog No. PKSM041095

Note: Centrifuge before opening to ensure complete recovery of vial contents.

## Description

Synonyms Interleukin-4;B-cell IgG differentiation factor;B-cell growth factor 1;B-cell

stimulatory factor 1;IGG1 induction factor;Lymphocyte stimulatory factor

1;IL-4;BSF-1

SpeciesMouseExpression HostE.coli

Sequence His 21-Ser 140

AccessionP07750Calculated Molecular Weight14.5 kDaObserved molecular weight14 kDaTagC-His

### **Properties**

**Purity** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin** < 0.1 EU per µg of the protein as determined by the LAL method.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

### Data



> 98 % as determined by reducing SDS-PAGE.

# **Background**

Mouse Interleukin-4(IL-4) is a monomeric, Th2 cytokine that shows pleiotropic effects during immune responses. It is a

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glycosylated polypeptide that contains three intrachain disulfide bridges and adopts a bundled four  $\alpha$ -helix structure. IL-4 exerts its effects through two receptor complexes, Participates in at least several B-cell activation processes as well as of other cell types. IL-4 is primarily expressed by Th2-biased CD4+T cells, mast cells, basophils, and eosinophils. It promotes cell proliferation, survival, and immunoglobulin class switch to IgG1 and IgE in mouse B cells, acquisition of the Th2 phenotype by na?ve CD4+T cells, priming and chemotaxis of mast cells, eosinophils, and basophils, and the proliferation and activation of epithelial cells. IL-4 plays a dominant role in the development of allergic inflammation and asthma. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes.

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