

## Recombinant Mouse Interleukin-4/IL-4 Protein (His Tag)

**Catalog Number:** PKSM041094

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

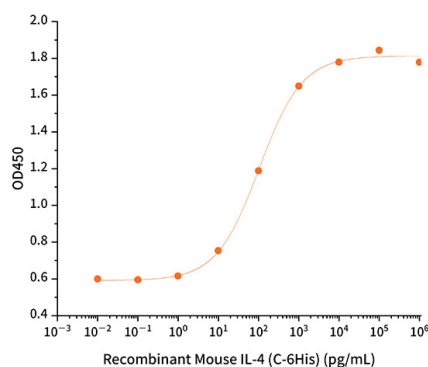
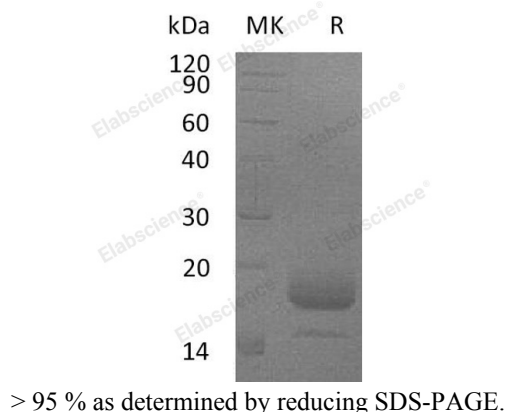
### Description

<b>Species</b>	Mouse
<b>Source</b>	HEK293 Cells-derived Mouse Interleukin-4/IL-4 protein His21-Ser140, with an C-terminal His
<b>Calculated MW</b>	14.6 kDa
<b>Observed MW</b>	15-19 kDa
<b>Accession</b>	P07750
<b>Bio-activity</b>	Measured in a cell proliferation assay using M-NFS-60 mouse lymphoblast cells. The ED <sub>50</sub> for this effect is 104 pg/ml.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



Measured in a cell proliferation assay using M-NFS-60 mouse lymphoblast cells. The ED<sub>50</sub> for this effect is 104 pg/ml.

### Background

### For Research Use Only

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Interleukin-4 (IL-4) is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. IL-4 is produced by mast cells, T cells, and bone marrow stromal cells. IL-4 regulates the differentiation of naive CD4<sup>+</sup> T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergic response.