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

Catalog Number: PDMH100412

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

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Species Human

Source HEK293 Cells-derived Human Interleukin-4 protein Met1-Ser153, with an C-terminal

His

Calculated MW16.7 kDaObserved MW16 kDaAccessionP05112

Bio-activity Not validated for activity

#### **Properties**

**Purity** > 95% as determined by reducing SDS-PAGE.

Endotoxin < 1.0 EU/mg 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

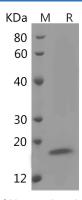
Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5%

Mannitol.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution

of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human Interleukin-4/IL-4 proteins, 2 µg/lane of Recombinant Human Interleukin-4/IL-4 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 16 kDa.

## **Background**

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+ 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.

#### For Research Use Only

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