A Reliable Research Partner in Life Science and Medicine

### Recombinant Human Interleukin-4/IL-4 Protein

Catalog No. PKSH033456

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

### **Description**

**Synonyms** Interleukin-4;IL-4;B-Cell Stimulatory Factor 1;BSF-1;Binetrakin;Lymphocyte

Stimulatory Factor 1;Pitrakinra;IL4

**Species** Human

**Expression Host** HEK293 Cells **Sequence** His25-Ser153 P05112 Accession Calculated Molecular Weight 15.0 kDa

Observed molecular weight 18 kDa Tag None

**Bioactivity** Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The

ED50 for this effect is 0.01-0.05 ng/ml.

## **Properties**

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

**Endotoxin** < 0.01 EU per µg of the protein as determined by the LAL method.

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

-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 of 20mM PB, 150mM NaCl, pH 7.4.

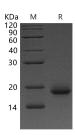
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as

protectants before lyophilization.

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

Reconstitution Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

# **Background**

#### For Research Use Only

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017 Email: techsupport@elabscience.com

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#### **Elabscience Bionovation Inc.**



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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+ 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.

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