


## Human IL-4 protein

Cat #: PRP100273

Size: 20µg/100µg/1mg

### Product Information

	<b>Product Name:</b> Human IL-4 protein		
<b>REF</b>	<b>Catalog Number:</b> PRP100273	<b>LOT</b>	<b>Lot Number:</b> Refer to product label
	<b>Purity:</b> > 92 % as determined by SDS-PAGE		
	<b>Storage:</b> Store at -20°C		<b>Preparation method:</b> E. coli
	<b>Shipping:</b> The product is shipped at ambient temperature.		

**Background:** Interleukin-4, also known as IL4, is a secreted protein which belongs to the IL-4 / IL-13 family. Interleukin-4 / IL4 has many biological roles, including the stimulation of activated B-cell and T-cell proliferation. It enhances both secretion and cell surface expression of IgE and IgG1. Interleukin-4 / IL4 also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Interleukin-4 is essential for the switching of B cells to IgE antibody production and for the maturation of T helper (Th) cells toward the Th2 phenotype. It participates in at least several B-cell activation processes as well as of other cell types. However, studies show that double mutant (Q116D, Y119D) of the murine IL4 protein (QY), both glutamine 116 and tyrosine 119, which binds to the IL4 receptor alpha, completely inhibits in a dose-dependent manner the IL4-induced proliferation of lipopolysaccharide-stimulated murine splenic B-cells, of the murine T cell line CTLL-2, and of the murine pre-B-cell line BA/F3. QY also inhibited the IL4-stimulated up-regulation of CD23 expression by lipopolysaccharide-stimulated murine splenic B-cells and abolished tyrosine phosphorylation of the transcription factor Stat6 and the tyrosine kinase Jak3 in IL4-stimulated BA/F3 cells.

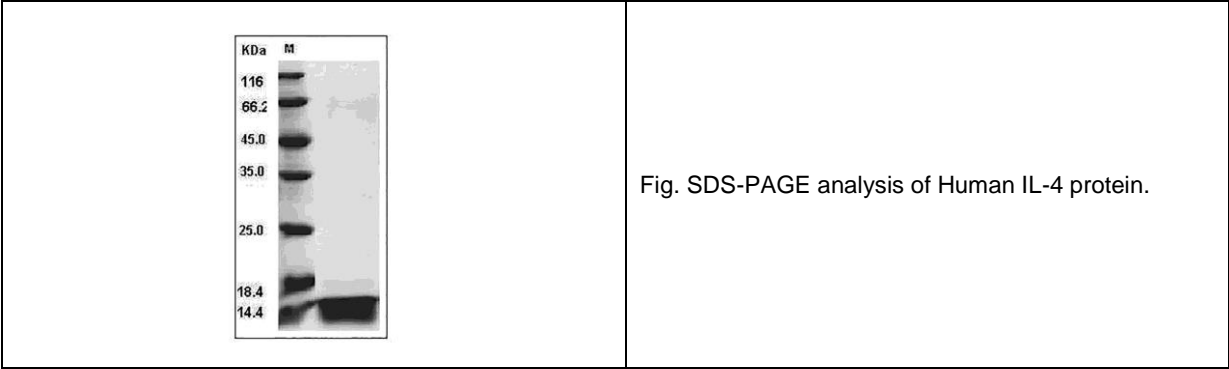
**Sequence:** Amino acid sequence derived from mature form of human IL4 isoform 1 (P05112-1) (His 25-Ser 153) was expressed and purified, with an initial Met.

**Protein length:** The recombinant human IL4 consisting of 130 amino acids and migrates with an apparent molecular mass of 15 kDa as predicted.

**Formulation:** Lyophilized from sterile 20mM MES, 200mM NaCl, pH 6.0.

**Storage Instructions:** Lyophilized Human IL4 protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage notes:** Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human IL4 protein in sterile ddH<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.



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