

## Recombinant Human Interleukin 4, HQ-tagged

**Cat. No.** IL4-5334H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human IL4 contains 130 amino acids and a 16 amino acid Histidine/Glutamine-based tag for a total length of 146 amino acids.
<b>Species</b>	Human
<b>Source</b>	Hordeum Vulgare
<b>Description</b>	IL-4, is a cytokine that induces differentiation of naive helper T cells (Th0 cells) to Th2 cells. Upon activation by IL-4, Th2 cells subsequently produce additional IL-4. The cell that initially produces IL-4, thus inducing Th0 differentiation, has not been identified, but recent studies suggest that basophils may be the effector cell.
<b>Form</b>	Lyophilized from a 0.2 um sterile filtered solution in 30 mM Sodium Acetate + 0.7 M NaCl pH 5.3.
<b>Molecular Weight</b>	17.2 kDa
<b>Purity</b>	>95% by SDS-PAGE
<b>Endotoxin Level</b>	<0.005 ng/ug of IL4
<b>Biological Activity</b>	Determined by the cell proliferation assay for IL4 for dose-dependent cell proliferation of human TF-1 cells. The EDSO range is 0.8-1.2 ng/mL.
<b>Specific Activity</b>	1.2-0.8 x 10 <sup>6</sup> U/mg

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<b>Reconstitution</b>	Centrifuge vial prior to opening. Add sterile low salt buffer to the vial to fully solubilize the protein to a concentration not less than 100 ug/ml.
<b>Storage</b>	Although stable at room temperature for several weeks, lyophilized protein is best stored at -20°C. Store reconstituted protein in working aliquots at -20°C with a carrier protein (0.1% HSA or BSA) as a stabilizer for long term storage. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.
<b>Official Symbol</b>	IL4
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	IL4 interleukin 4 [ Homosapiens ]
<b>Synonyms</b>	IL4; interleukin 4; BSF1; IL-4; BCGF1; BSF-1; BCGF-1; MGC79402; interleukin-4; binetrakin; pitrakinra; OTTHUMP00000066049; OTTHUMP00000066050; B cell growth factor 1; B_cell stimulatory factor 1; lymphocyte stimulatory factor 1
<b>Gene ID</b>	3565
<b>mRNA Refseq</b>	NM_000589
<b>Protein Refseq</b>	NP_000580
<b>MIM</b>	147780
<b>UniProt ID</b>	P05112
<b>Chromosome Location</b>	5q23-q31

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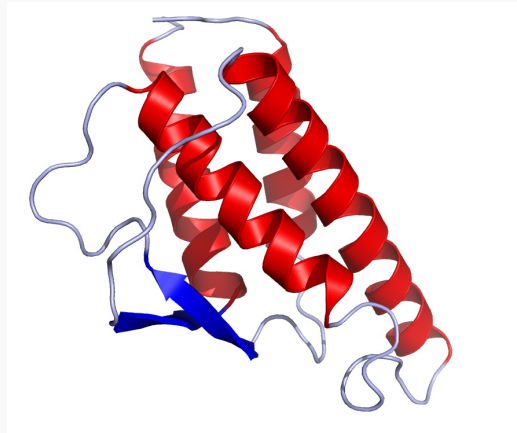
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**Pathway**

Allograft rejection;Asthma; Autoimmune thyroid disease; CD40/CD40L signaling; Cytokine-cytokinereceptor interaction; Fc epsilon RI signaling pathway; Hematopoietic celllineage; IL-4 signaling Pathway; IL12-mediated signaling events; IL4-mediatedsignaling events; Inflammatory Response Pathway; Jak-STAT signaling pathway;Leishmaniasis; Measles; T cell receptor signaling pathway

**Function**

cytokine activity;growth factor activity; interleukin-4 receptor binding; protein binding

**Crystal structure  
of human IL-4 (2INT)**

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