

Recombinant Human Interleukin 4, HQ-tagged

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

SPECIFICATION

Product Overview	Recombinant human IL4 contains 130 amino acids and a 16 amino acid Histidine/Glutamine-based tag for a total length of 146 amino acids.
Species	Human
Source	Hordeum Vulgare
Description	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.
Form	Lyophilized from a 0.2 µm sterile filtered solution in 30 mM Sodium Acetate + 0.7 M NaCl pH 5.3.
Molecular Weight	17.2 kDa
Purity	>95% by SDS-PAGE
Endotoxin Level	<0.005 ng/µg of IL4
Biological Activity	Determined by the cell proliferation assay for IL4 for dose-dependent cell proliferation of human TF-1 cells. The ED50 range is 0.8-1.2 ng/mL.
Specific Activity	1.2-0.8 x 10 ⁶ U/mg

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Reconstitution	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.
Storage	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.
Official Symbol	IL4
GENE INFORMATION	
Gene Name	IL4 interleukin 4 [Homosapiens]
Synonyms	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
Gene ID	3565
mRNA Refseq	NM_000589
Protein Refseq	NP_000580
MIM	147780
UniProt ID	P05112
Chromosome Location	5q23-q31

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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)**

