

Recombinant Human IL5

Cat. No. IL5-214H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human interleukin 5 (colony-stimulating factor, eosinophil) DNA sequence encoding the human IL-5 protein sequence containing two 115 amino acid peptide chains was inserted into a suitable expression vector and was expressed in *Sf21 insect cells*.

Species Human

Source Sf21 Cells

Description Interleukin 5 or IL-5 is an interleukin produced by T helper-2 cells and mast cells. Its functions are to stimulate B cell growth and increase immunoglobulin secretion. It is the main factor that promotes the terminal differentiation of eosinophil progenitors and enhances the effector capacity of mature eosinophils. IL-5 is a TH2 cytokine which is part of the hematopoietic family. Unlike other members of this cytokine family in its active form, this glycoprotein is a homodimer. IL-5 expression is regulated by several transcription factors including GATA-3.

Molecular Weight The predicted molecular weight of Recombinant Human IL-5 is Mr 32-34 kDa.

State Of Matter Solution.

Formulation This recombinant protein solution was 0.2 µm filtered and formulated in modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives present.

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Purity	>97% by SDS Page and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method.
Biological Activity	The biological activity of Human IL-5 was determined in a cell proliferation assay using a factor-dependent human cell line, TF-1. The expected ED50 for this effect is typically 0.1 - 0.2 ng/mL.
Storage And Stability	Working aliquots of this recombinant protein solution are stable for up to twelve months at -20°C to -70°C in a manual defrost freezer. Upon thawing, in the presence of a carrier protein, this recombinant protein can be stored at 2°C - 8°C for one month without detectable loss of activity. For long-term storage, aliquot and freeze at -20°C to -70°C in a manual defrost freezer. Avoid repeated freeze thaw cycles.

GENE INFORMATION

Gene Name	IL5 interleukin 5 (colony-stimulating factor, eosinophil) [Homo sapiens]
Synonyms	IL5; interleukin 5 (colony-stimulating factor, eosinophil); EDF; IL-5; TRF; B cell differentiation factor I; T-cell replacing factor; eosinophil differentiation factor; interleukin 5; interleukin-5; B-cell differentiation factor I; Eosinophil differentiation factor; OTTHUMP00000065830
Gene ID	3567
mRNA Refseq	NM_000879
Protein Refseq	NP_000870
UniProt ID	P05113

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Chromosome Location	5q31.1
MIM	147850
Pathway	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Hematopoietic cell lineage; Allograft rejection; Asthma; Autoimmune thyroid disease; Fc epsilon RI signaling pathway; T cell receptor signaling pathway
Function	interleukin-5 receptor activity; cytokine activity; growth factor activity

Crystal structure of human IL-5.

