

Active Recombinant Human IL5,His-tagged

Cat. No. IL5-8864H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL5 was produced in the endosperm tissue of barley grain (Hordeum vulgare).
Species	Human
Source	Hordeum Vulgare
Description	IL-5 (T cell replacing factor (TRF), eosinophil differentiation factor (EDF)) is a hematopoietic growth factor that stimulates the proliferation, differentiation and activation of eosinophils. It is produced by mast cells, T cells and eosinophils and has an important role in activating cell-mediated immunity following parasitic infections. It belongs to the same cytokine family as IL-3 and GM-CSF. The biologically active IL-5 consists of an antiparallel homodimer linked by disulfide bonds. Human and murine IL-5 are 70% identical at the amino acid level and show species cross-reactivity. IL-5 exerts its effects on target cells by binding to specific cell surface receptors.
Predicted N Terminal	His
Form	Sterile filtered through a 0.2 µm filter. Lyophilized from PBS, pH 7.2
Bio-activity	Bioactivity is assayed by measuring the dose dependent effect of human IL-5 on proliferation of TF-1 cells. The EC50 for this batch of recombinant human IL-5 was determined to be 1.51 ng/ml, corresponding to 0.66x 10E6 U/mg.
Molecular Mass	Recombinant human IL-5 contains 115 amino acids and a 16 a.a. histidine-based tag

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for a total length of 131 a.a. and has a predicted molecular mass of 15.3 kDa including his-tag. As a result of glycosylation, the recombinant protein migrates as two bands with an apparent molecular mass of 22 and 23 kDa in SDS-PAGE.

Endotoxin Endotoxin level is less than 0.05EU/μg as measured by turbidimetric kinetic assay.

Purity >98% by SDS-PAGE gel analysis.

Storage The lyophilized protein is stable at room temperature for few weeks. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 μg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

GENE INFORMATION

Gene Name IL5 interleukin 5 (colony-stimulating factor, eosinophil) [Homo sapiens]

Official Symbol IL5

Synonyms IL5; interleukin 5 (colony-stimulating factor, eosinophil); interleukin-5; B cell differentiation factor I; EDF; eosinophil differentiation factor; IL 5; interleukin 5; T cell replacing factor; TRF; T-cell replacing factor; B-cell differentiation factor I; IL-5;

Gene ID 3567

mRNA Refseq NM_000879

Protein Refseq NP_000870

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MIM	147850
UniProt ID	P05113
Chromosome Location	5q23-q31
Pathway	Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem;
Function	cytokine activity; growth factor activity; interleukin-5 receptor binding; protein binding;

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