Datasheet

Cat. No. PM2006

Recombinant Mouse IL-5, Tag Free

Information

Accession #	P04401
Alternate Names	IL5; IL-5; IL-5T-cell replacing factor; interleukin 5 (colony-stimulating factor, eosinophil); interleukin-5
Source	Human embryonic kidney cell, HEK293-derived mouse IL-5 protein
Protein sequence	Met21-Gly133
M.Wt	13.1 kDa
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 3 years from date of receipt, -20 to -70°C as supplied.
Concentration	1 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	The EC50 for this effect is 17-35.6 pg/mL. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	> 95%, determined by SDS-PAGE.
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.

Description

Interleukin-5 (IL-5) is a secreted glycoprotein that belongs to the alpha -helical group of cytokines [1 - 3]. Unlike other family members, it is present as a covalently linked antiparallel dimer [4, 5]. The cDNA for mouse IL-5 encodes a signal peptide and a 113 amino acid (aa) mature protein. Mature mouse IL-5 shares 70%, 94%, 58%, 66%, 59% and 63%, aa sequence identity with human, rat, canine, equine, feline and porcine IL-5, respectively, and shows cross-reactivity with human IL-5 receptor. IL-5 is primarily produced by CD4+ Th2 cells, but also by activated eosinophils, mast cells, EBV-transformed B cells, Reed-Sternberg cells in Hodgkin′ s disease, and IL-2-stimulated invariant natural killer T cells (iNKT) [1 - 3, 6 - 8]. IL-5 increases production and mobilization of eosinophils and CD34+ progenitors from the bone marrow and causes maturation of eosinophil precursors outside the bone marrow [1, 6, 9, 10]. The receptor for

human IL-5, mainly expressed by eosinophils, but also found on basophils and mast cells, consists of a unique ligand-binding subunit (IL-5 R alpha) and a shared signal-transducing subunit, beta c [3, 6, 11]. IL-5 R alpha first binds IL-5 at low affinity, then associates with preformed beta c dimers, forming a high-affinity receptor [12].

Reference

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