Recombinant Mouse IL-2 (His, Strep)

Information

Gene ID	16183
Accession #	P04351
Alternate Names	Aldesleukin; IL2; IL-2; IL-2lymphokine; interleukin 2; interleukin-2;T-cell growth factor; TCGF
Source	HEK293
Protein sequence	APTSSSTSSSTAEAQQQQQQQQQQQQHLEQLLMDLQELLSRMENYRNLKLPRMLTFKFYLPKQATELKDL QCLEDELGPLRHVLDLTQSKSFQLEDAENFISNIRVTVVKLKGSDNTFECQFDDESATVVDFLRRWIAFCQS IISTSPQ
Tag	N-His, N-Strep
M.Wt	The protein has a calculated MW of 17.2 KDa.
Appearance	Solution protein.
Stability & Storage	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. -2 years from date of receipt, -20 to -70 °C as supplied.
Concentration	1 mg/mL
Formulation	Supplied as a 0.2 μm filtered solution in PBS, pH7.4.
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	Fully biologically active as determined by a cell proliferation assay using CTLL-2 mouse cytotoxic T cells. The EC50 for this effect is 2.5 ng/mL.
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 % by SDS-PAGE.
Endotoxin	Less than 1.0 EU/μg as determined by LAL method.

Description

Interleukin 2 (IL-2) is an O-glycosylated four-stranded α-helical bundle cytokine with strong stimulatory activity against antigen-activated T cells. It is expressed by CD4+ and CD8+ T cells, γ-delta T cells, B cells, dendritic cells, and eosinophils. The amino acid sequence homology of mature mouse IL-2 with human and rat IL-2 is 56% and 73%, respectively. It shows heterogeneity specific to strains in the N-terminal region containing polyglutamine stretching. IL-2 in mice and humans exhibits cross-species activity. The IL-2 receptor is composed of three subunits, which are present on the cell surface in different prefabricated complex forms. IL-2Rα at 55 kDa binds specifically to IL-2 with low binding affinity. IL-2Rβ at 75 kDa is also a component of the IL-15 receptor, which binds IL-2 with moderate affinity. The 64 kDa common γ-chain γc/IL-2 R shared with the receptors of IL-4, -7, -9, -15, and -21 does not interact independently with IL-2. Upon binding to ligands, signal transduction is done by IL-2Rβ and γC. IL-2 is known for its autocrine and paracrine activity on T cells. It drives quiescent T cell proliferation and induces the synthesis of IL-2 and IL-2Rα. It promotes T cell homeostasis by promoting Fas-

induced death of native CD4+ T cells, rather than activated CD4+ memory lymphocytes. IL-2 plays a central role in the expansion and maintenance of regulatory T cells, although it inhibits the development of Th17-polarized cells. Therefore, IL-2 may be a key cytokine that naturally suppresses autoimmunity.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com