


Mouse IL-2 protein

Cat #:PRP1129

Size: 20 µg/100 µg/500 µg

Product Information

	Product Name: Mouse IL-2 protein		
REF	Catalog Number: PRP1129	LOT	Lot Number: Refer to product label
	Purity: > 95 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: E. coli
	Shipping: The product is shipped at ambient temperature.		

Background: Interleukin-2 (IL 2), also known as T cell growth factor, is a member of the cytokine family, including IL-4, IL-7, IL-9, IL-15, and IL-21. Each member of this family has a bundle of four α spirals. IL-2 signals through IL-2 receptors, which are complexes of dendritic subunits called α , β , and γ . γ IL-2R is common to the cytokine receptors of all members of the cytokine family. Mature IL2 mice share 56% and 73% of aa sequence identity with human and rat IL2, respectively. Produced by CD4+ T cells, CD8+ T cells, γ δ T cells, B cells, dendritic cells, and eosinophils, IL-2 plays a vital role in key immune system function, tolerance, and immunity, primarily due to its potent stimulating activity against T cells. Therefore, IL2 may be a key cytokine that naturally suppresses autoimmunity.

Interleukin-2/IL-2 is produced by T cells in response to antigen or mitotic stimuli, a protein required for T cell proliferation and other activities that are essential for regulating the immune response. Interleukin-2/IL-2 is normally produced by the body during an immune response. When environmental substances (molecules or microorganisms) enter the body, these substances (called antigens) are recognized as foreign by antigen receptors expressed on the surface of lymphocytes. The antigen binds to the T cell receptor (TCR) to stimulate the secretion of interleukin-2/IL-2 and the expression of the IL-2 receptor IL-2R. IL-2/IL-2R interactions then stimulate the growth, differentiation, and survival of antigen-selective cytotoxic T cells by activating the expression of specific genes. Interleukin-2/IL-2 stimulates B cells, monocytes, lymphokine-activated killer cells, natural killer cells, and glioma cells. The world reference standard for interleukin-2/IL-2 was developed by the National Institute for Biological Standards and Control, UK. The recombinant form of interleukin-2/IL-2 for clinical use is manufactured by Chiron under the brand name Proleukin. It has been approved by the U.S. Food and Drug Administration (FDA) for the treatment of cancers (malignant melanoma, renal cell carcinoma) and is in clinical trials for the treatment of chronic viral infections and as a booster (adjuvant) for vaccines.

Protein length: The recombinant Mouse IL-2 (P04351) consists of 149 amino acids and has a predicted molecular mass of 17 kDa.

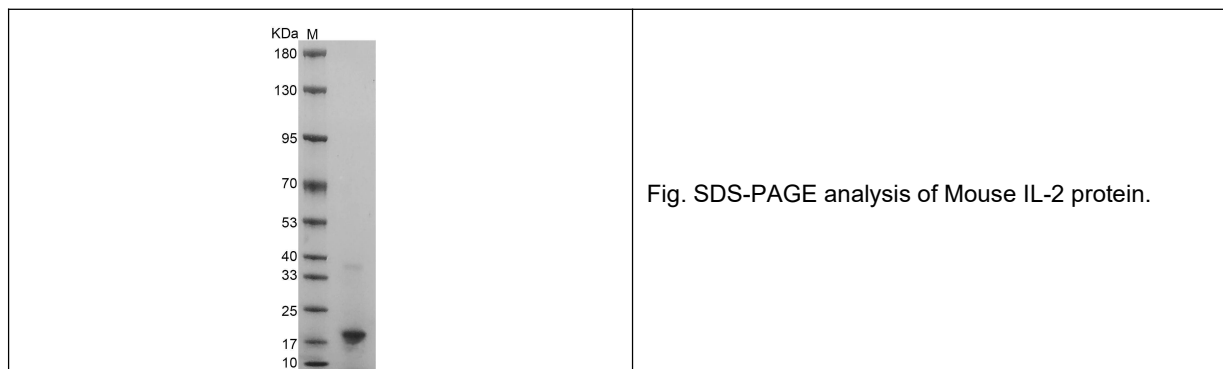
Biological Activity: Testing in progress

Endotoxin: <1EU per µg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile 20mM Tris 300mM NaCl ,pH 8.0.

Storage Instructions: Lyophilized Mouse IL-2 protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Mouse IL-2 protein using the buffer we provided not less than 100µg/ml, which can then be further diluted to other aqueous solutions.



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