

Active Recombinant Mouse Il10 protein

Cat. No. II10-214M Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Mouse Il10(Ser19-Asn178) was expressed in E. coli.

Species Mouse

Source E.coli

ProteinLength 19-178 a.a.

Description

Interleukin 10, also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of alpha -helical cytokines that also includes IL-19, IL-20, IL-22, and IL-24. IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Mature rat IL-10 shares 85% amino acid sequence identity with mouse and 71%-79% amino acid sequence identity with bovine, canine, equine, feline, human, ovine, and porcine IL-10. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer. The IL-10 dimer binds to two IL-10 R alpha /IL-10 R1 chains, resulting in recruitment of two IL-10 R beta /IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL-10 R beta does not bind IL-10 by itself but is required for signal transduction. IL-10 R beta also associates with IL-20 R alpha, IL-22 R alpha, or IL-28 R alpha to form the receptor complexes for IL-22, IL-26, IL-28, and IL-29. IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation. It

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	promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses.
Predicted N Terminal	Ser19
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured in a cell proliferation assay using MC/9-2 mouse mast cells. Thompson-Snipes, L. et al. (1991) J. Exp. Med. 173:507. The ED50 for this effect is 0.12-0.72 ng/mL.
Molecular Mass	Predicted Molecular Mass: 19 (monomer) kDa SDS-PAGE: 16 kDa, reducing conditions
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 200 µg/mL in PBS.

GENE INFORMATION

Gene Name	Il10 interleukin 10 [Mus musculus]
Official Symbol	Il10

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Synonyms	IL10; interleukin 10; interleukin-10; cytokine synthesis inhibitory factor; CSIF; II-10;
Gene ID	16153
mRNA Refseq	NM_010548
Protein Refseq	NP_034678
UniProt ID	P18893

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