

Recombinant Rat Il6 protein

Cat. No. Il6-473R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Il6 protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	187
Description	Interleukin-6 (IL-6) is encoded by the IL-6 gene and acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response. IL-16 plays an essential role in the final differentiation of B-cells into Ig-secreting cells involved in lymphocyte and monocyte differentiation. It also induces myeloma and plasmacytoma growth and induces nerve cells differentiation acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. The rat IL-6 is a single non-glycosylated polypeptide chain containing 187 amino acids and it signals through a cell-surface type I cytokine receptor complex consisting of the ligand-binding IL-6Ra chain (CD126), and the signal-transducing component gp130 (also called CD130). The rat IL-6 shares 40 % and 85 % aa sequence identity with human and mouse IL-6 and it is equally active on human and mouse cells.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using IL-6-dependent murine 7TD1 cells is less than 0.01

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	ng/ml, corresponding to a specific activity of $> 1.0 \times 10^8$ IU/mg.
Molecular Mass	Approximately 21.7 kDa, a single, non-glycosylated polypeptide chain containing 187 amino acids
AA Sequence	FPTSQVRRGDFTEDTTHNRPVYTTSQVGGLITYVLREILEMRKELCNGNSDCMNSD DALSENNLKLPEIQRNDGCFQTGYNQEICLLKICSGLLEFRFYLEFVKNNLQDNKKDK ARVIQSNTETLVHIFKQEIKDSYKIVLPTPTSNALLMEKLESQKEWLRTKTIQLILKALE EFLKVTMRSTRQT
Endotoxin	Less than 1 EU/μg of rRtIL-6 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
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	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10mM HCl to a concentration of 0.1 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IL6
Official Symbol	IL6
Synonyms	IL6; interleukin 6; interleukin-6; IL-6; Interleukin 6 (interferon, beta 2); ILg6; Ifnb2;

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Gene ID	24498
mRNA Refseq	NM_012589
Protein Refseq	NP_036721
UniProt ID	P20607

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