

Recombinant Rat IL-6

Catalog # FL173

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 96% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rRtIL-6 protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Rat
Tag	Tag free.
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 ng/ml, corresponding to a specific activity of $\geq 1.0 \times 10^8$ IU/mg.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, with 150 mM NaCl, 5% (v/v) Trehalose, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 10 mM HCl to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Accession #	P20607 Phe25-Thr211
Amino acid sequence	FPTSQVRRGDFTEdTTHNRPVYTTSQVGGLITYVLREILEMRKELCNGNSDCMNSDDALSENNLKLPEIQRNDGCFQTGYN QEICLLKICSGLLEFRFYLEFVKNNLQDNKKDKARVIQSNTE TLVHIFKQEIKDSYKIVLPTPTSNALLMEKLESQKEWLRRTKT IQLILKALEEFLKVTMRSTRQT
Molecular weight	Approximately 21.7 kDa, a single non-glycosylated polypeptide chain containing 187 amino acids.
Synonyms	BSF-2, CDF, Hybridoma growth factor, IFN-beta-2
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored $\leq -20^\circ\text{C}$. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Rat IL-6 is for research use only and not for use in diagnostic or therapeutic procedures.

Background

Interleukin-6 (IL-6) is encoded by the IL-6 gene and acts as both a pro-inflammatory and anti-inflammatory cytokine. IL-6 is a pleiotropic cytokine that plays an important role in host defense by regulating immune and inflammatory responses. Produced by T cells, monocytes, fibroblasts, endothelial cells and keratinocytes, IL-6 has diverse biological functions. It stimulates B cell differentiation and antibody production, synergizes with IL-3 in megakaryocyte development and platelet production, induces expression of hepatic acute-phase proteins, and regulates bone metabolism. IL-6 signals through the IL-6 receptor system that consists of two chains, IL-6R α and gp130. 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. Recombinant Rat IL-6 is a 21.7kDa protein containing 187 amino acid.

