

Recombinant Rat Interleukin-6

#R00304

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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-6 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-6R α 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.

AA Sequence

FPTSQVRRGDFTEDTTHNRPVYTTSQVGGLITYVLRE
ILEMRKELCNGNSDCMNSDDALSENNLKLPEIQRND
GCFQTGYNQEICLLKICSGLLEFRFYLEFVKNNLQDN
KKDKARVIQSNTETLVHIFKQEIKDSYKIVLPTPTSNA
LMEKLESQKEWLRTKTIQLILKALEEFLKVTMRSTRQT

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 $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Accession	P20607
GeneID	24498
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 21.7 kDa, a single, non-glycosylated polypeptide chain containing 187 amino acids
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 > 1.0 $\times$ 10 ⁸ IU/mg.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rRtIL-6 as determined by LAL method.