

Recombinant Murine Interleukin-6

#R00221

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) encoded by the IL-6 gene, acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response. It 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 mouse 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-6Rα chain (CD126), and the signal-transducing component gp130 (also called CD130). The mouse IL-6 shares 40 % and 85 % a.a. sequence identity with human and rat IL-6 and it is equally active on human and rat cells.

AA Sequence

MFPTSQVRRGDFTEDTTPNRPVYTTSQVGGLITHVL
WEIVEMRKELCNGNSDCMNNDDALAENNLKLPEIQR
NDGCYQTGYNQEICLLKISSGLLEYHSYLEYMKNNLK
DNKKDKARVLQRDTETLIHIFNQEVKDLHKIVLPTPISN
ALLTDKLESQKEWLRTKTIQFILKSLEEFLKVTLRSTR
QT

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	B-cell hybridoma growth factor, Interleukin HP-1.
Accession	P08505
GeneID	16193
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 21.7 kDa, a single non-glycosylated polypeptide chain containing 188 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by the dose-dependent stimulation of the proliferation of IL-6-dependent murine 7TD1

cells is less than 0.02 ng/ml,
corresponding to a specific
activity of $> 5 \times 10^7$ IU/mg.

**Physical
Appearance** Sterile Filtered White lyophilized
(freeze-dried) powder.

Formulation Lyophilized from a 0.2 μ m
filtered solution in 30 mM Acetic
Acid, pH 3.0, 150 mM NaCl, 5 %
Trehalose, 0.02 % Tween-20.

Endotoxin Less than 1 EU/ μ g of rMuLL-6 as
determined by LAL method.
