Datasheet

Cat. No. P1164

Recombinant Mouse IL-6

Information

Gene ID	16193
Accession #	P08505
Alternate Names	B-cell hybridoma growth factor, Interleukin HP-1.
Source	*Escherichia coli.*
M.Wt	Approximately 21.7 kDa, a single non-glycosylated polypeptide chain containing 188 amino acids.
AA Sequence	MFPTSQVRRG DFTEDTTPNR PVYTTSQVGG LITHVLWEIV EMRKELCNGN SDCMNNDDAL AENNLKLPEI QRNDGCYQTG YNQEICLLKI SSGLLEYHSY LEYMKNNLKD NKKDKARVLQ RDTETLIHIF NQEVKDLHKI VLPTPISNAL LTDKLESQKE WLRTKTIQFI LKSLEEFLKV TLRSTRQT
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 μm filtered solution in 30 mM Acetic Acid, pH 3.0, 150 mM NaCl, 5 % Trehalose, 0.02 % Tween-20.
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.
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 > 5×10^7 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 μg	100 μg	500 μg
Recombinant Mouse IL-6	10 μg	100 μg	500 μg

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.

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuIL-6 as determined by LAL method.

Description

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.

Reference

1. Ferguson-Smith AC, Chen YF, Newman MS, et al. 1988. Genomics. 2:203-8.

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3. Ming JE, Cernetti C, Steinman RM, et al. 1989. J Mol Cell Immunol. 4:203-11; discussion 211-2.

4. Bastard JP, Jardel C, Delattre J, et al. 1999. Circulation. 99:2221-2.

5. Heinrich PC, Behrmann I, Muller-Newen G, et al. 1998. Biochem J. 334 (Pt 2):297-314.

6. Van Snick J, Cayphas S, Szikora JP, et al. 1988. Eur J Immunol. 18:193-7.

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