Mouse Recombinant IL-6

Interleukin 6

Catalog # 78052.1 10 μg
78052 100 μg
78052.2 1000 μg

Product Description
Interleukin 6 (IL-6) is a pleiotropic growth factor with the wide range of biological activities in immune regulation, hematopoiesis, and oncogenesis. IL-6 is produced by a variety of cell types including T cells, B cells, monocytes and macrophages, fibroblasts, hepatocytes, vascular endothelial cells, and various tumor cell lines. On its own or in combination with other factors such as IL-2 and interferon-γ, IL-6 stimulates the proliferation of B cells, T cells, and hybridoma cells (Nordan et al.; Van Snick et al.; Gauldie et al.; Mihara et al.; Tanaka et al). In combination with cytokines such as IL-3, GM-CSF and SCF, IL-6 has been shown to promote hematopoietic progenitor cell proliferation and differentiation in vitro. IL-6 signals through a cell surface type I cytokine receptor complex consisting of the ligand-binding IL-6α (CD126) and the signal-transducing gp130 subunits. The binding of IL-6 to its receptor system includes activation of JAK/STAT signaling pathway (Mihara et al.; Peters et a; Tanaka et al.).

Product Information
Alternative Names: B cell differentiation factor, BSF-2, IFN-β2, Interleukin-6
Accession Number: P08505
Amino Acid Sequence: MFPTSQVRG DFTETTPNR PVTTSQVGG LITHVLWEIV ERMKELCNQ SDCMNNDDAL AENNLKLPEI QRNDGCYQTG YNQEICLLKI SSGILLEYHSY LEYMKNKLKD NKKDKARVLQ RDTETLHIF NQEVKDLHKI VLPTPSNAL LTDKLESQKE WLRKTIQFI LKSLFEFLKV TLRSTRTQ
Predicted Molecular Mass: 21.9 kDa
Species: Mouse
Cross Reactivity: Rat, Monkey
Formulation: Lyophilized from a sterile filtered aqueous solution containing 0.1% trifluoroacetic acid.
Source: E. coli

Specifications
Activity: The specific activity is ≥ 1 x 10^6 units/mg (EC50 ≤ 1 ng/mL) as determined by cell proliferation assay using 7TD1 cells.
Purity: ≥ 95%
Endotoxin Level: Measured by kinetic limulus amebocyte lysate (LAL) analysis and is ≤ 1 EU/μg protein.

Preparation and Storage
Storage: Store at -20°C to -80°C.
Stability: Stable as supplied for 12 months from date of receipt.
Reconstitution: Centrifuge vial before opening. Resuspend the product in 10 mM hydrochloric acid containing 0.1% bovine serum albumin (BSA) to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 1 month or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles. NOTE: If reconstituted product will be used immediately BSA is not required.
Cytokines

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Data

(A) The biological activity of Mouse Recombinant IL-6 was tested by its ability to promote the proliferation of 7TD1 cells. Cell proliferation was measured after 66 hours of culture using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is 2.4 - 3.6 pg/mL.

(B) 1 μg of Mouse Recombinant IL-6 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Mouse Recombinant IL-6 has a predicted molecular mass of 21.9 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References


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