Interleukin-6 Murine E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Murine
Other names: IL-6, Interferon-beta 2, B-cell stimulatory factor 2,HGF

Cat. No.:

RBG20006002	(2 µg)
RBG20006010	(10 µg)
RBG20006100	(100 µg)

Description

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 alpha and gp130. Murine IL-6 is inactive on human cells, while both human and murine are equally active on murine cells. Recombinant Murine IL-6 is a 21.7 kDa protein containing 188 amino acid residues.

Introduction to the Molecule

Interleukin-6 is a multi-functional cytokine that regulates immune responses, acute phase reactions and hematopoiesis, and it may play a central role in host defense mechanisms. IL-6 is usually not produced constitutively by normal cells, but its expression is readily induced by a variety of cytokines, lipopolysaccharide or viral infections.

Research topic

Animal studies, Cytokines and chemokines and related molecules, Energy metabolism and body weight regulation

Amino Acid Sequence

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MFPTSQVRRG DFTEDTTPNR PVYTTSQVGG LITHVLWEIV EMRKELCNGN SDCMNNDDAL AENNLKLPEI QRNDGCYQTG
YNQEICLLKI SSGLLEYHSY LEYMKNNLKD NKKDKARVLQ RDTETLIHIF NQEVKDLHKI VLPTPISNAL LTDKLESQKE
WLRTKTIQFI LKSLEEFLKV TLRSTRQT
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Source

E. coli

Purity

98%

Biological Activity

The ED_{50} as determined by the dose-dependent stimulation of the proliferation of IL-6-dependent murine 7TD1 cells is ? 0.02 ng/ml, corresponding to a specific activity of ? 5×10^7 units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute with a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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