

Interleukin-6 Rat E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG30006002	(2 µg)
Species: Rat	RBG30006010	(10 µg)
Other names: IL-6, Interferon-beta 2, B-cell stimulatory factor 2,HGF	RBG30006100	(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 Rat 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

MFPTSQVRRG DFTEDTTHNR PVYTTSQVGG LITYVLREIL EMRKELCNGN SDCMNSDDAL SENNLKLPEI QRNDGCFQTG
YNQEICLLKI CSGLLLEFRFY LEFVKNNLQD NKKDKARVIQ SNTETLVHIF KQEIKDSYKI VLPTPTSNAL LMEKLESQKE
WLRTKTIQLI LKALEEFLKV TMRSTRQT

Source

E. coli

Purity

98%

Biological Activity

The ED₅₀ as determined by the dose-dependent stimulation of the proliferation of IL-6-dependent murine 7TD1 cells is < 0.01 ng/ml, corresponding to a specific activity of > 1×10⁸ 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. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

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