Technical Data Sheet

Recombinant Rat Interleukin-6 (rRtIL-6)

Rat Interleukin-6

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.

Catalog Number: RC252-17

Source: *Escherichia coli.*

Molecular Weight: 21.7 kDa, a single, non-glycosylated polypeptide chain containing 187 amino acids.

Quantity: 2ug

AA Sequence: FPTSQVRRGD FTEDTTHNRP VYTTSQVGGL ITYVLREIFE MRKELCNGNS
DCMNSDDALS ENNLKLPEIQ RNDGCFQTGY NQEICLLKIC SGLLEFRFYL
EFVKNNLQDN KKDKARVIQS NTETLVHIFK QEIKDSYKIV LPTPTSNALL
MEKLESQKEW LRTKTIQLIL KALEEFLKVT MRSTRQT

Purity: >97% by SDS-PAGE and HPLC analyses.

Biological Activity: Fully biologically active when compared to standard. 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 $> 1\times10^{8}$ units/mg

Formulation: Lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, pH 7.4, 150mM NaCl.

Endotoxin: Less than 1EU/μg of rRtIL-6 as determined by LAL method.

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 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. **Avoid repeated freeze/thaw cycles**.

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