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Product Data Sheet

Cat # SB-009-10	Recombinant Human Interleukin-6 (IL6)	Size: 10 ug
Cat # SB-009-50	Recombinant Human Interleukin-6 (IL6)	Size: 50 ug

Background:

Cytokines of the IL6/GCSF/MGF family are glycoproteins of about 170 to 180 amino acid residues that contain four conserved cysteine residues involved in two disulphide bonds. They have a compact, globular fold (similar to other interleukins), stabilized by the 2 disulphide bonds. One half of the structure is dominated by a 4 alpha-helix bundle with a left-handed twist: the helices are anti-parallel, with 2 overhand connections, which fall into a 2-stranded anti-parallel beta-sheet. The fourth alpha helix is important to the biological activity of the molecule.

Interleukin (IL)-6 is an important proinflammatory and immunoregulatory cytokine expressed by various cells. Interleukin-6 has been shown to inhibit the growth of early stage and to promote the proliferation of advanced stage melanoma cells in vitro.

Description:

Recombinant Human IL-6 produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 185 amino acids and having a molecular mass of 21.0 kDa.

Quality Control:

Biological activity: rHuIL-6 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of human TF-1 cells is less than 0.1 ng/ml, corresponding to a Specific Activity of 5.0×10^7 IU/mg.

Purity: Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Molecular weight: 21 KD \pm 10% determined by reduced SDS-PAGE.

Amino-Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Pro-Val-Pro-Pro.

Endotoxin: Less than 0.3ng/ μ g (0.3IEU/ μ g) determined by LAL test.

Formulation: Lyophilized from a concentrated (1mg/ml) solution in water containing 43 μ g/ml sodium chloride.

Storage: Lyophilized rHuIL-6 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-6 should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please avoid freeze-thaw cycles.

Reconstitution: It is recommended to reconstitute the lyophilized rHuIL-6 in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions

Usage:

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage..