



Recombinant Human Interleukin-6

50µg : Quantity
rHuIL-6-50µg : Code
C009: Batch
30/01/2013 : Exp.Date

CERTIFICATE OF ANALYSIS

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+/-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 0.1 ng/ µg (1 IEU/µg) determined by LAL test.

Formulation:

The protein was lyophilized from after extensive dialysis against 20mM Hac-NaAc-, pH5.0, 150mM NaAc buffer.

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. For laboratory in vitro research use only.

Reconstitution:

It is recommended to reconstitute the lyophilized rHuIL-6 in 500mM acetic acid not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

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