



COSMO BIO CO., LTD.

PRODUCT DATA SHEET

Product: IL-6 (recombinant human)

Cat. No.: BC-279 (20 µg)

Synonyms:

Interleukin-6 precursor, B-cell stimulatory factor 2, BSF-2, Interferon beta-2, Hybridoma growth factor, CTL differentiation factor, CDF

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.

Description:

Recombinant Human IL-6 produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 184 amino acids and having a molecular mass of 21,000 Dalton. The recombinant human IL-6 is purified by proprietary chromatographic techniques.

Amino Acid Sequence:

The sequence of the first five N-terminal amino acids was determined to be Met-Pro-Val-Pro-Pro.

Origin:

Produced in *E. Coli*.

Format:

Sterile filtered white powder. Lyophilized with PBS, pH 7.4.

Purity:

Greater than 98.0% as determined by RP-HPLC, anion-exchange FPLC, reducing and non-reducing SDS-PAGE Silver Stained gel. Dimers and aggregates: less than 1% as determined by silver-stained SDS-PAGE.

Endotoxin:

Less than 0.1 ng/µg (IEU/µg) of recombinant human IL-6.

Reconstitution:

Reconstitute in sterile 18MΩ-cm H₂O at not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

Biological Activity:

Recombinant human IL-6 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of mouse 7TD1 cells is less than 0.1 ng/mL, corresponding to a specific activity of 5×10^7 IU/mg.

Storage:

Lyophilized recombinant human IL-6, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution recombinant human IL-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).

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.



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