

IL-6

Interleukin-6, B-cell hybridoma growth factor murine, recombinant, *E. coli*

Cat. No.	Amount
PR-467	10 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized. IL-6 is lyophilized from a 1 mg/ml solution containing 10 mM NaAcetate pH 6.0.

Solubility

It is recommended to reconstitute the lyophilized Interleukin 6 in 20 mM HCl to 0.1-1.0 mg/ml to regain full activity and can then be further diluted to other aqueous solutions.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity

ED₅₀: < 0.02 ng/ml, corresponding to a specific activity 5 x 10⁷ IU/mg, determined by the dose-dependent stimulation of murine 7TD1 cells.

Endotoxin

Less than 0.1 ng/µg (IEU/µg) of IL-6.

Molecular Weight

22 kDa

Purity

≥ 90% by SDS-PAGE

Description

IL-6 is a variably glycosylated protein produced by many different cells, but the main sources *in vivo* are stimulated monocytes/macrophages, fibroblasts, and vascular endothelial cells, indicative of its role in the modulation of the immune system.

Other cells known to express IL-6 include keratinocytes, osteoblasts, T-cells, B-cells, neutrophils, eosinophils, mast cells, smooth muscle cells, and skeletal muscle cells. Typical stimuli for IL-6 production are IL-1, TNF-α, and bacterial endotoxin.

Recombinant murine IL-6 produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 187 amino acids and having a molecular mass of 21.7 kDa. IL-6 is purified by proprietary chromatographic techniques.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Phe-Pro-Thr-Ser.

Selected References:

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- Matthews *et al.* (2003) Cellular cholesterol depletion triggers shedding of the human interleukin-6 receptor by ADAM10 and ADAM17 (TACE). *J. Biol. Chem.* **278**:38829.
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- Lu *et al.* (2009) Establishment of an Immunoglobulin M Antibody-Forming Cell Response Model for Characterizing Immunotoxicity in Primary Human B Cells. *Toxicological Sciences* **112**(2):363-373.