



## Product Information Sheet

### Recombinant Human IL-6

Code: PR1169

Plant Cell Expression System

For research use only

Not for diagnostic or therapeutic procedures.

**Description** IL-6 is a pleiotropic cytokine with a variety of stimulatory effects on hematopoietic cells and cells of the immune system. Major cellular targets include B lymphocytes, T lymphocytes and hepatocytes. Stimulates the enhancement of hematopoietic colony formation and the production of acute phase response proteins by hepatocytes. IL-6 is expressed by many different cell types. The main sources in vivo are stimulated monocytes, macrophages, fibroblast, endothelial cells and keratocytes. IL-6 expression can be stimulated by a number of different factors including IFN- $\beta$ , TNF- $\alpha$ , PDGF, NGF. Multiple forms of IL-6 have been described with molecular masses ranging between 20 - 30 kDa as a result of differential glycosylation/phosphorylation patterns. Fibroblasts express at least five forms IL6 with different O- and N-glycosylations. Human IL-6 is a protein of 185 amino acids with four cysteine residues. The structure of IL-6 is composed of a four helix bundle linked by loops and an additional mini-helix.

**Source** DNA sequence (Acc. N: NM\_000600) encoding the mature human IL-6 protein sequence with an amino-terminal hexahistidine tag was expressed in *Nicotiana benthamiana* cells.

**Mol. Mass** ARCUS BIOLOGICALS expressed human IL-6 migrates between 25-30 KDa in SDS-PAGE due to post-translational modification, mainly glycosylation. This compares with the unmodified IL-6 from *E.coli* that has a predicted molecular mass of 21,0 KDa.

**Carbohydrate** ARCUS BIOLOGICALS purified IL6 consists of 0-30% carbohydrate by weight.

**Purity** >90%, as determined by SDS-PAGE and visualized by silver stain.

**Formulation** Lyophilized. When reconstituted in 0,5 mL dd water the solution will contain 5% sucrose, 0.15% arginine and optional carrier, e.g. 1% serum albumin (HSA, BSA),.

**Solubility** Reconstitute in 0,5 mL of sterile ammonium acetate 50 mM pH 5,0.

**Storage** Lyophilized products should be stored at 2-8 °C. Up on reconstitution IL6 should be stored at 4°C for short-term storage and at -20°C for long term storage. Avoid freeze/thaw cycles of solution.

**Activity** The ED50 of IL-6 is 0,10-0,25 ng/mL as measured in a cell proliferation assay using a human growth factor-dependent TF-1 cell line.

### Theoretical Sequence

HHHHHHAPVPPGEDSKDVAAPHRQPLTSSERIDKQIRYILDGIALRKETCNKSNMCESSKEALAENN  
LNLPKMAEKDGCQSGFNEETCLVKIITGLLEFEVYLEYLQNRFESEEQARAVQMSTKVLIQFLQKKA  
KNLDAITTPDPTTNASLLTKLQAQNWQLQDMTTHLILRSFKEFLQSSLRALRQM