

IL-11

**Interleukin-11, adipogenesis inhibitory factor
human, recombinant, *E. coli***

Cat. No.	Amount
PR-471	10 μ g

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

Avoid freeze / thaw cycles

Form

Lyophilized.

Molecular Weight

19.3 kDa

Solubility

It is recommended to reconstitute the lyophilized IL-11 in bidest H₂O not less than 100 μ g/ml, which 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: < 10 ng/ml, corresponding to a specific activity 2 x 10⁴ IU/mg, determined by the dosedependent proliferation of murine 7TD1 cells.

Purity

≥ 95% by SDS-PAGE, RP-HPLC and FPLC

Description

Interleukin-11 (IL-11) was initially cloned as a mediator of plasmacytoma cell proliferation and was later found to exhibit a wide variety of biological effects in neural cells as well as in the hematopoietic and the immune system. IL-11 inhibits the secretion of tumor necrosis factor (TNF), interleukin-12 (IL-12), interleukin-1 β (IL-1 β), and nitric oxide from activated macrophages as well as interferon γ and IL-12 from activated T cells.

Recombinant human IL-11 produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 179 amino acids and having a molecular mass of 19.3 kDa.

IL-11 is purified by proprietary chromatographic techniques.

Selected References:

- Kiessling *et al.* (2004) Functional expression of the interleukin-11 receptor alpha-chain and evidence of antiapoptotic effects in human colonic epithelial cells. *J. Biol. Chem.* **279**:10304.
- Hao *et al.* (2004) Effects of recombinant human interleukin 11 on thrombocytopenia and neutropenia in irradiated rhesus monkeys. *Radiat. Res.* **162**:157.
- Cotreau *et al.* (2004) A multiple-dose, safety, tolerability, pharmacokinetics and pharmacodynamic study of oral recombinant human interleukin-11 (oprelvekin). *Biopharm. Drug. Dispos.* **25**:291.
- Garzon-Rodriguez *et al.* (2004) Optimizing storage stability of lyophilized recombinant human interleukin-11 with disaccharide/hydroxyethyl starch mixtures. *J. Pharm. Sci.* **93**:684.
- Venkova *et al.* (2004) Oral treatment with recombinant human interleukin-11 improves mucosal transport in the colon of human leukocyte antigen-B27 transgenic rats. *J. Pharmacol. Exp. Ther.* **308**:206.
- Harmegnies *et al.* (2003) Characterization of a potent human interleukin-11 agonist. *Biochem. J.* **375**:23.