

## IL-11

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

| Cat. No. | Amount     |
|----------|------------|
| PR-471   | 10 $\mu$ g |

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

### **Avoid freeze / thaw cycles**

### **Form**

Lyophilized

### **Solubility**

It is recommended to reconstitute the lyophilized IL-11 in bidist H<sub>2</sub>O not less than 100  $\mu$ 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**

ED<sub>50</sub>: < 10 ng/ml, corresponding to a specific activity 2 x 10<sup>4</sup> IU/mg, determined by the dose-dependent proliferation of murine 7TD1 cells.

### **Endotoxin**

Less than 0.1 ng/ $\mu$ g (IEU/ $\mu$ g) of IL-11.

### **Purity**

≥ 98% 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 $\beta$  (IL-1 $\beta$ ), and nitric oxide from activated macrophages as well as interferon  $\gamma$  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 19.256 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 K. and Keith J.C. Jr (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.