

IL-5

Interleukin-5, B-cell differentiation Factor human, recombinant, *E. coli*

Cat. No.	Amount
PR-465	10 µg

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-5 in bidest H₂O not less than 100 µg/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: < 0.15 ng/ml, corresponding to a specific activity of 1.3 x 10⁶ IU/mg, determined by the dose-dependent stimulation of the proliferation of TF-1 cells.

Endotoxin

Less than 0.1 ng/µg (IEU/µg) of IL-5.

Molecular Weight

26.5 kDa

Purity

≥ 95% by SDS-PAGE and RP-HPLC

Description

In humans, interleukin-5 (IL-5) acts only on eosinophils and basophils, in which it causes maturation, growth, activation, and survival.

Several allergic diseases, such as nasal rhinitis, nasal polyps, asthma, idiopathic eosinophilic syndromes, and atopic dermatitis, have prominent inflammatory components that are characterized by pronounced eosinophilic infiltration.

Recombinant human IL-5 produced in *E. coli* is a dimeric, non-glycosylated polypeptide chain containing 132 amino acids and having a molecular mass of 26.522 kDa. IL-5 is purified by proprietary chromatographic techniques.

Selected References:

- Greenfeder *et al.* (2001) Th2 cytokines and asthma - The role of interleukin-5 in allergic eosinophilic disease. *Respir. Res.* **2**:71.
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- Ishino *et al.* (2004) Kinetic interaction analysis of human interleukin 5 receptor alpha mutants reveals a unique binding topology and charge distribution for cytokine recognition. *J. Biol. Chem.* **279**:9547.
- Feng *et al.* (2002) Sequence-specific NMR resonance assignments for human interleukin-5. *J. Biomol. NMR.* **23**:329.
- Schwenger *et al.* (2002) Specific activation of human interleukin-5 depends on de novo synthesis of an AP-1 complex. *J. Biol. Chem.* **277**:47022.
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- Karras *et al.* (2000) Antisense inhibition of membrane-bound human interleukin-5 receptor-alpha chain does not affect soluble receptor expression and induces apoptosis in TF-1 cells. *Antisense Nucleic Acid Drug Dev.* **10**:347.