

## Recombinant Rat Interleukin-5 (rr IL-5)

**Synonyms:** T-cell replacing factor (TRF), Eosinophil differentiation factor (EDF), B cell differentiation factor II (BCDFII).

**Introduction:** IL-5 acts as a growth and differentiation factor for both B cells and eosinophils and is a main regulator of eosinopoiesis, eosinophil maturation and activation. The elevated production of IL-5 is reported to be related to asthma or hypereosinophilic syndromes. The receptor of IL-5 is a heterodimer, whose beta subunit is shared with the receptors for IL-3 and GM-CSF. This gene, together with those for IL-4, IL-13 and GM-CSF, form a cytokine gene cluster on chromosome 5. IL-5, IL-4 and IL-13 are found to be regulated coordinately by long-range regulatory elements spread over 120 kilobases on chromosome 5q31.

**Description:** Recombinant rat IL-5 produced in *E. Coli* is a dimeric, non-glycosylated polypeptide chain containing 113 amino acids and having a molecular mass of 13074 Dalton. The rr IL-5 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 1mg/ml solution in water containing no additives. The aliquotes of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rr IL-5 in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rr IL-5 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr IL-5 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 95.0% as determined by RP-HPLC and by SDS-PAGE.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Ile-Pro-Met.

**Biological Activity:** The ED<sub>50</sub> was determined by the dose dependent stimulation of the proliferation of BCL-1 cells was found to be 0.3-1.0 ng/ml.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	13340052
<i>medium</i>	10 µg	Cat.N°	13340053
<i>large</i>	50 µg	Cat.N°	13340055

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