

Recombinant Human Interleukin-5 (rh IL-5)

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

Introduction: The protein encoded by this gene is a cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. Interleukin 5 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 Interleukine 3 and colony stimulating factor 2 (GM-CSF). This gene, together with those for Interleukin 4, Interleukin 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 human IL-5 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 113 amino acids and having a molecular mass of 26.5 kDa. The rh IL-5 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: Lyophilized from a 0.22 µm filtered solution in sodium phosphate, pH 8.0
The aliquotes of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-5 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-5 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh 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% HSS or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

Amino acid sequence: IPTEIPTSAL VKETLALLST HRTLLIANET LRIPVPVHKN HQLCTEEIFQ GIGTLESQTV QGGTVERLFK NLSLIKYYID GQKKKCGEER RRVNQFLDYL QEFLGVMNTE WIIES

Biological Activity: The ED₅₀ as determined by the dose-dependant stimulation of the proliferation of TF-1 cells was found to be < 0.15ng/ml, corresponding to a specific activity of 6 x 10⁶ IU/mg.

This material is offered for **research use 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°	11340052
<i>medium</i>	10 µg	Cat.N°	11340053
<i>large</i>	50 µg	Cat.N°	11340055
<i>x-large</i>	250 µg	Cat.N°	11340057
<i>xx-large</i>	1000 µg	Cat.N°	11340058

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