

## Recombinant Rat Interleukin-13 (rr IL-13)

**Synonyms:** NC300, ALRH, BHR1, P600.

**Introduction:** IL-13 is an immunoregulatory cytokine produced primarily by activated Th2 cells. IL-13 is involved in several stages of B-cell maturation and differentiation. It regulates CD23 and MHC class II expression up and promotes IgE isotype switching of B cells. IL-13 regulates macrophage activity down by inhibiting thereby the production of pro-inflammatory cytokines and chemokines. IL-13 is found to be critical to the pathogenesis of allergen-induced asthma but operates through mechanisms independent of IgE and eosinophils. IL-13, IL-3, IL-4, IL-5 and GM-CSF form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL-4.

**Description:** Recombinant rat IL-13 produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 113 amino acids and having a molecular mass of 12.7 kDa. rr IL-13 is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

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

**Formulation:** Lyophilized with no additives.

The aliquotes of 1 µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rr IL-13 in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rr IL-13 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C Upon reconstitution rr IL-13 should be stored at 4° C between 2-7 days and for future use below -18° C. For long terr 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 SDS-PAGE.

**Biological Activity:** The ED<sub>50</sub> range = 2-6 ng/mL as determined by the dose dependent proliferation of human TF-1 cells. Optimal concentration for individual application should be determined by a dose response assay.

**Protein content:** Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbance value of 0.69 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IL-13 as a Reference Standard.

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°	13340132
<i>medium</i>	10 µg	Cat.N°	13340133
<i>large</i>	50 µg	Cat.N°	13340135

**ImmunoTools** Excellent Quality - Advantageously priced

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