

## Product datasheet

### Rat IL-13 ELISA Kit ab269547

Recombinant SimpleStep ELISA<sup>®</sup>

[1 References](#) [4 Images](#)

#### Overview

**Product name** Rat IL-13 ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			5.9%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			2%

**Sample type** Urine, Serum, Cell culture media, EDTA Plasma

**Assay type** Sandwich (quantitative)

**Sensitivity** 20.03 pg/ml

**Range** 78.13 pg/ml - 5000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Urine	83	80% - 86%
Serum	87	81% - 92%
Cell culture media	90	84% - 98%
EDTA Plasma	97	84% - 117%

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Rat

## Product overview

Rat IL-13 ELISA Kit (ab269547) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-13 protein in edta plasma, serum, urine, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Rat IL-13 with 20.03 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

## Notes

Interleukin-13 (IL-13) is a secreted immunoregulatory cytokine in the IL-4/IL-13 family that is linked to allergic reactions and cancer pathogenesis. IL-13 inhibits inflammatory cytokine production and promotes immunoglobulin class switching on B-cells. IL-13 synergizes with IL-2 in regulating interferon-gamma synthesis. IL-13 is linked to allergic rhinitis, a common disease of complex inheritance characterized by mucosal inflammation caused by allergen exposure. The antibodies for this kit were raised against a recombinant peptide fragment of the mature rat protein.

## Platform

Pre-coated microplate (12 x 8 well strips)

## Properties

### Storage instructions

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Rat IL-13 Capture Antibody	1 x 600µl
10X Rat IL-13 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BR	1 x 6ml
Plate Seals	1 unit
Rat IL-13 Lyophilized Recombinant Protein	2 vials
Sample Diluent 50BP	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml

Components	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

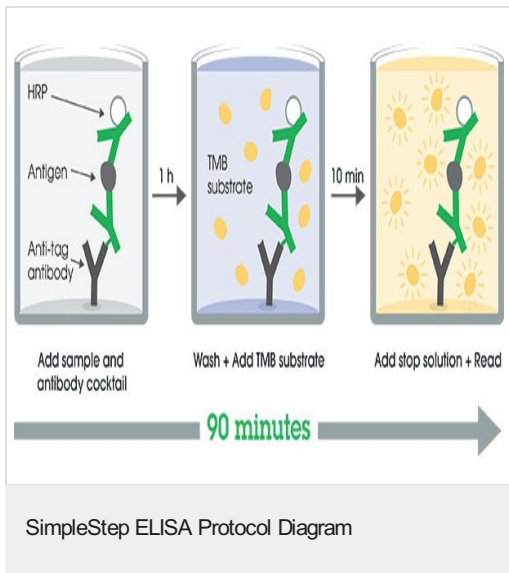
**Function** Cytokine (PubMed:8096327, PubMed:8097324). Inhibits inflammatory cytokine production (PubMed:8096327). Synergizes with IL2 in regulating interferon-gamma synthesis (PubMed:8096327). May be critical in regulating inflammatory and immune responses (PubMed:8096327, PubMed:8097324). Positively regulates IL31RA expression in macrophages.

**Involvement in disease** Allergic rhinitis

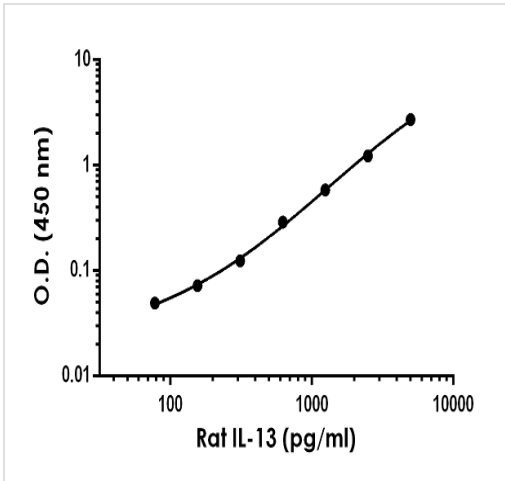
**Sequence similarities** Belongs to the IL-4/IL-13 family.

**Cellular localization** Secreted.

**Images**

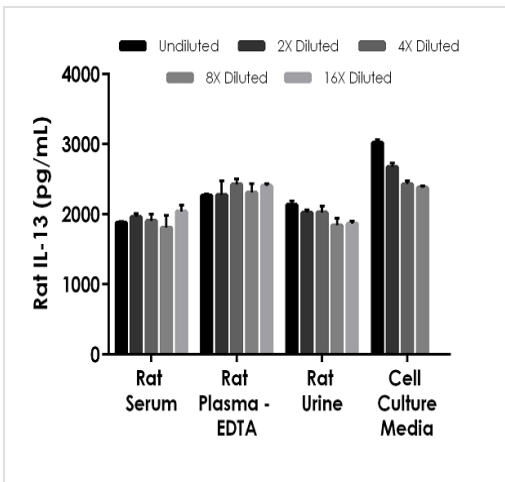


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Example of rat IL-13 standard curve in Sample Diluent 50BP.

The IL-13 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of spiked recombinant IL-13 in rat serum, plasma, urine and cell culture media samples.

The concentrations of IL-13 were measured in duplicates, interpolated from the IL-13 standard curves and corrected for sample dilution. Undiluted samples are as follows: rat serum 50%, rat plasma (EDTA) 50%, rat urine 50% and cell culture media 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

Powered by recombinant antibodies

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Rat IL-13 ELISA Kit (ab269547)

To learn more about the advantages of recombinant antibodies see [here](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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