

Product datasheet

Mouse IL-13 ELISA Kit ab219634

Recombinant SimpleStep ELISA[®]

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Overview

Product name Mouse IL-13 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
supernatant	5			2.2%

Inter-assay

Sample	n	Mean	SD	CV%
supernatant	3			1.4%

Sample type Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 1.2 pg/ml

Range 1.95 pg/ml - 125 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	108	106% - 111%
Serum	97	95% - 98%
Hep Plasma	104	101% - 108%
EDTA Plasma	98	97% - 99%
Cit plasma	97	95% - 100%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Mouse**Product overview**

Mouse IL-13 ELISA Kit (ab219634) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-13 protein in cell culture supernatant, serum, cit plasma, edta plasma, and hep plasma. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse IL-13 with 1.2 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 IL2 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.

Platform

Microplate (12 x 8 well strips)

Properties**Storage instructions**

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

Components	1 x 96 tests	1 x 96 tests
10X Mouse IL-13 Capture Antibody	1 x 600µl	1 x 600µl
10X Mouse IL-13 Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
Antibody Diluent CPR2	1 x 6ml	1 x 6ml
Mouse IL-13 Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit

Components	1 x 96 tests	1 x 96 tests
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

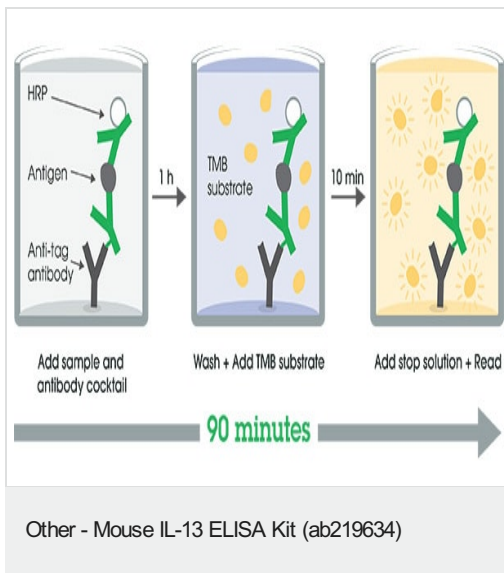
Function Cytokine (PubMed:8096327, PubMed:8097324). Inhibits inflammatory cytokine production (PubMed:8096327). Synergizes with IL2 in regulating interferon-gamma synthesis (PubMed:8096327). May be critical in regulating inflammatory and immune responses (PubMed:8096327, PubMed:8097324). Positively regulates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

Involvement in disease Allergic rhinitis

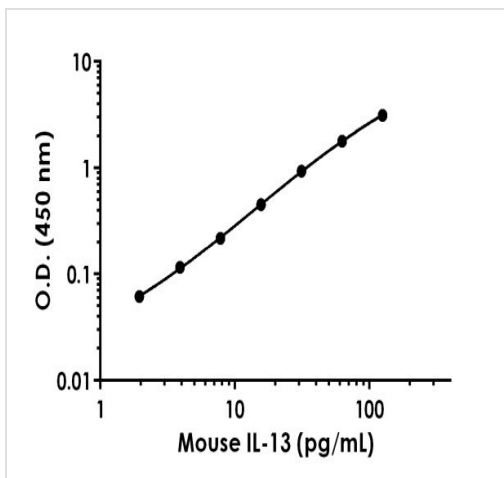
Sequence similarities Belongs to the IL-4/IL-13 family.

Cellular localization Secreted.

Images

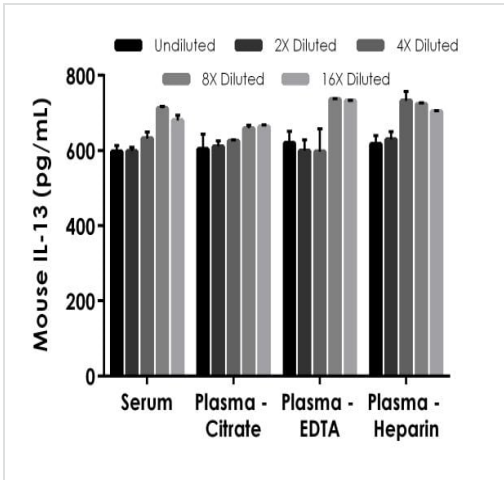


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



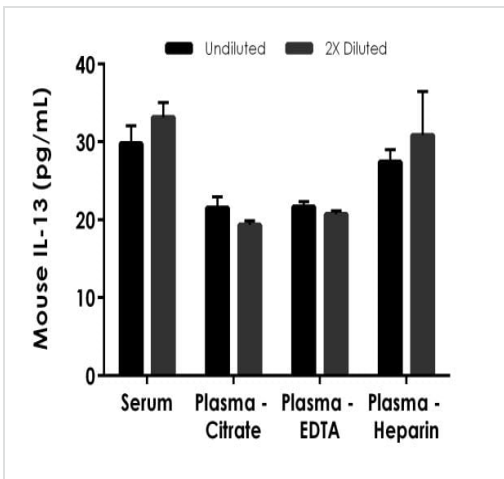
Example of mouse IL-13 standard curve.

Background-subtracted data values (mean +/- SD) are graphed.



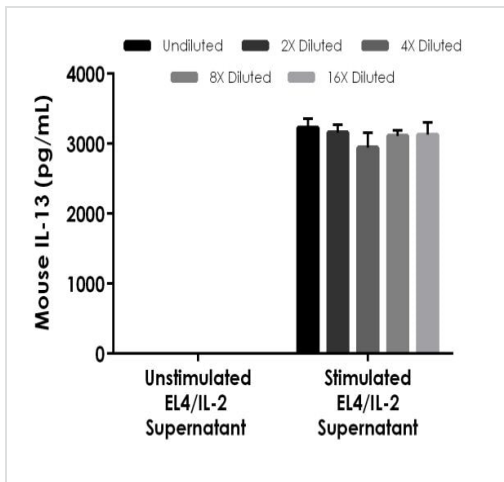
Interpolated concentrations of spike IL-13 in mouse serum and plasma samples.

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: serum 10%, plasma (citrate) 10%, plasma (EDTA) 10% and plasma (heparin) 5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of native IL-13 in mouse serum and plasma 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: serum 10%, plasma (citrate) 10%, plasma (EDTA) 10% and plasma (heparin) 5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-13 concentration was determined to be 31.5 pg/mL in serum, 21.1 pg/mL in plasma (citrate) and 20.4 pg/mL in plasma (EDTA) and 29.1 pg/mL in plasma (heparin).



Interpolated concentrations of native IL-13 in mouse EL4/IL-2 cell culture supernatant unstimulated and PHA/PMA stimulated 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 2%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-13 concentration was determined to be 3144 pg/mL in PHA/PMA stimulated EL4/IL-2 cell culture supernatant and undetermined in media and unstimulated cell culture supernatant.

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 - Mouse IL-13 ELISA Kit (ab219634)

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

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