

Product datasheet

Mouse IL-22 ELISA Kit ab223857

Recombinant SimpleStep ELISA

[7 Images](#)

Overview

Product name Mouse IL-22 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	9			3.8%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			6.2%

Sample type Cell culture supernatant, Serum, Plasma, Tissue Extracts, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 0.15 pg/ml

Range 3.13 pg/ml - 200 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	107	104% - 110%
Serum	99	98% - 101%
Plasma	101	104% - 110%
EDTA Plasma	100	98% - 101%
Cit plasma	95	94% - 96%

Assay time 1h 30m

Assay duration One step assay

Species reactivity**Reacts with:** Mouse**Does not react with:** Cow**Product overview**

Mouse IL-22 ELISA Kit (ab223857) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-22 protein in cit plasma, edta plasma, plasma, serum, tissue extracts, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse IL-22 with 0.15 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 22 (IL-22) is a cytokine thought to be involved in the response to inflammation through the Jak/STAT and MAPK signaling pathways. IL-22 is produced by NK cells and Th1-type T cells and can stimulate the induction of pro-inflammatory cytokines in human keratinocytes.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties**Storage instructions**

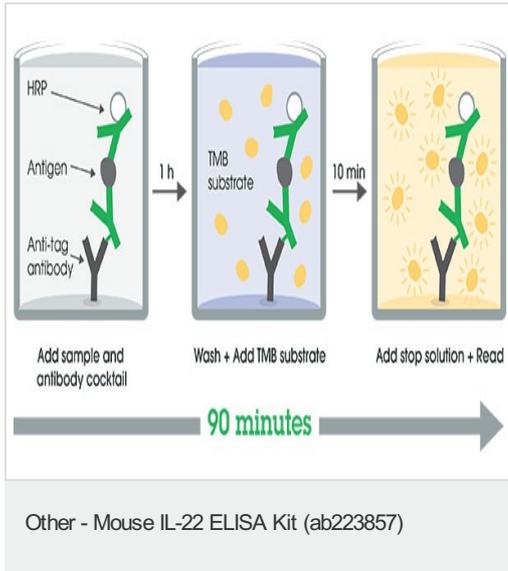
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse IL-22 Capture Antibody	1 x 600µl
10X Mouse IL-22 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BR	1 x 6ml
Mouse IL-22 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml

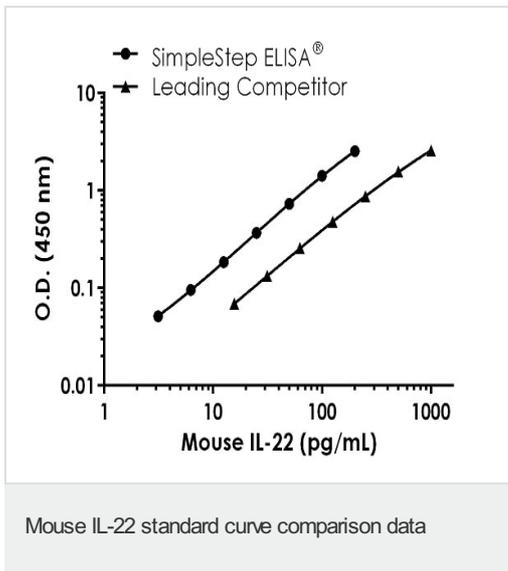
Components	1 x 96 tests
TMB Development Solution	1 x 12ml

Function	Cytokine that contributes to the inflammatory response in vivo.
Sequence similarities	Belongs to the IL-10 family.
Cellular localization	Secreted.

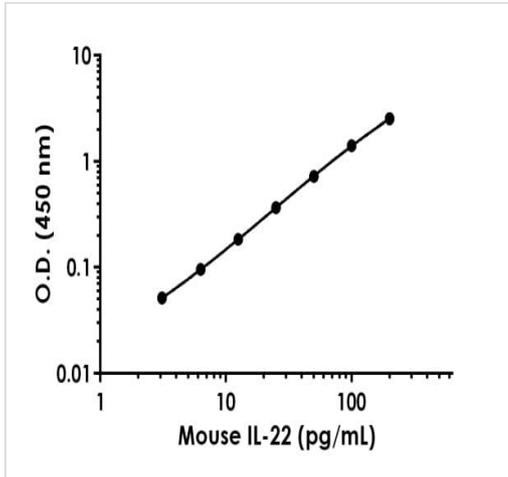
Images



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.

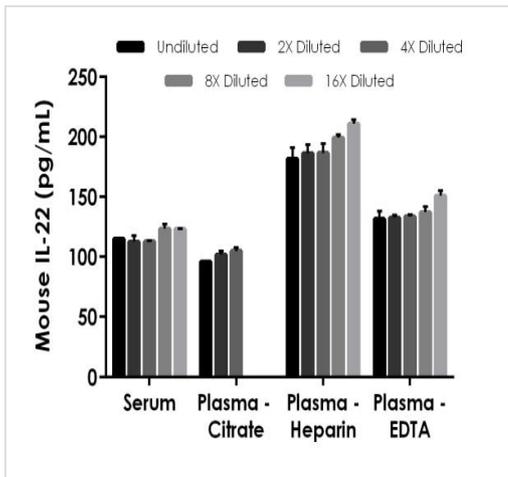


Standard curve comparison between mouse IL-22 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



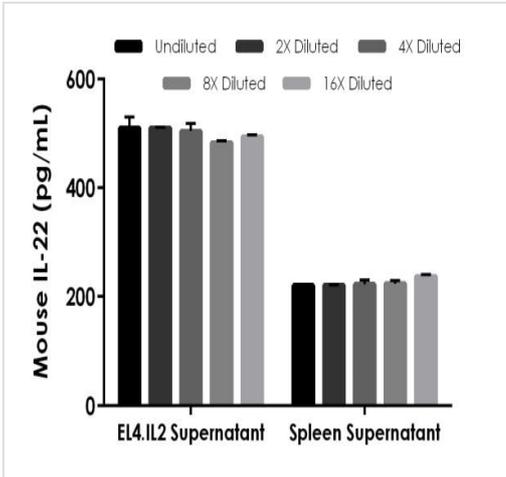
Background-subtracted data values (mean +/- SD) are graphed.

Example of Mouse IL-22 standard curve in Sample Diluent NS



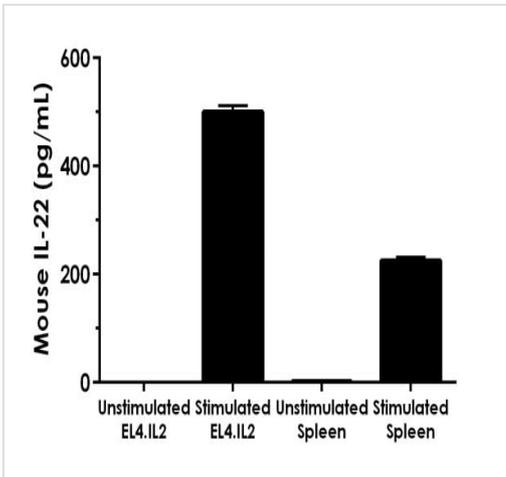
The concentrations of IL-22 were measured in duplicates, interpolated from the IL-22 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 50%, plasma (heparin) 50% and plasma (EDTA) 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-22 concentration was determined to be 117 pg/mL in serum, 101 pg/mL in plasma (citrate), 193 pg/mL in plasma (heparin), and 137 pg/mL in plasma (EDTA).

Interpolated concentrations of native IL-22 in Mouse serum and plasma samples



Interpolated concentrations of native IL-22 in stimulated EL4.IL2 and spleen cell culture supernatant

The concentrations of IL-22 were measured in duplicate and interpolated from the IL-22 standard curve and corrected for sample dilution. Undiluted samples are as follows: EL4.IL2 supernatant 25% and spleen supernatant 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-22 concentration was determined to be 500 pg/mL in EL4.IL2 supernatant and 225 pg/mL in spleen supernatant.



Comparison of IL-22 in unstimulated and stimulated cell culture supernatants

EL4.IL2 cells were cultured to semi-confluency and then treated for 48 hours with either 10 µg/mL PHA + 10 ng/mL PMA or DMSO (mock). Rat spleen cells were cultured in the presence or absence of 100 ng/mL IFN-gamma + 1 µg/mL LPS for 4 days. The concentrations of IL-22 were measured in five different dilutions of the supernatant samples in duplicates and interpolated from the IL-22 standard curve. The interpolated values are plotted (mean +/- SD, n=5) in pg per mL of neat supernatant. The mean IL-22 concentration was determined to be 500 pg/mL in stimulated EL4.IL2 supernatant and undetectable in unstimulated EL4.IL2 supernatant. The mean concentration was determined to be 225 pg/mL in stimulated spleen supernatant and 1.7 pg/mL in unstimulated spleen supernatant.

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recombinant antibodies



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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-22 ELISA Kit
(ab223857)

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

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