

Product datasheet

Mouse IL-22 ELISA Kit ab223857

SimpleStep ELISA

[6 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, Citrate 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%
Citrate Plasma	95	94% - 96%

Assay time 1h 30m

Assay duration	One step assay
Species reactivity	Reacts with: Mouse Does not react with: Rabbit, Cow, Human
Product overview	<p>IL-22 <i>in vitro</i> SimpleStep ELISA[®] (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of IL-22 protein in Mouse plasma, serum, and cell culture supernatants.</p> <p>The SimpleStep ELISA[®] employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.</p> <p>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.</p>
Tested applications	Suitable for: Sandwich ELISA
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 Wash Buffer PT (ab206977)	1 x 12ml
Antibody Diluent 4BR	1 x 6ml
10X Mouse IL-22 Capture Antibody	1 x 600µl
10X Mouse IL-22 Detector Antibody	1 x 600ml
Mouse IL-22 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
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

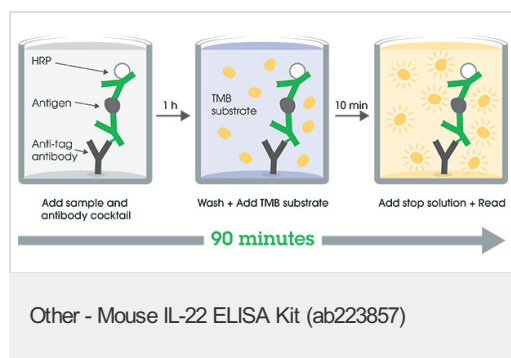
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Applications

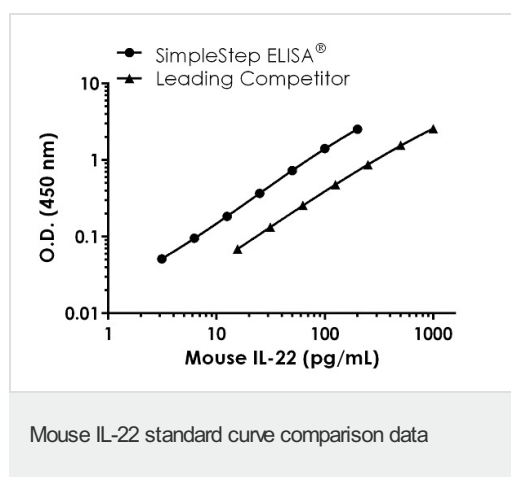
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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

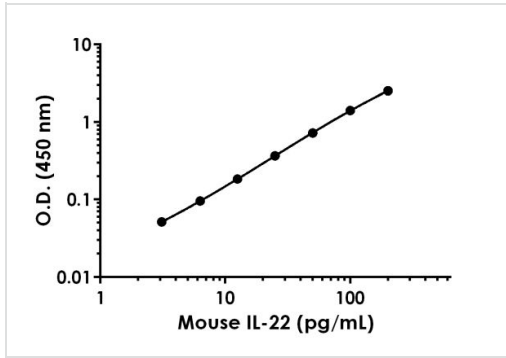
Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

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.

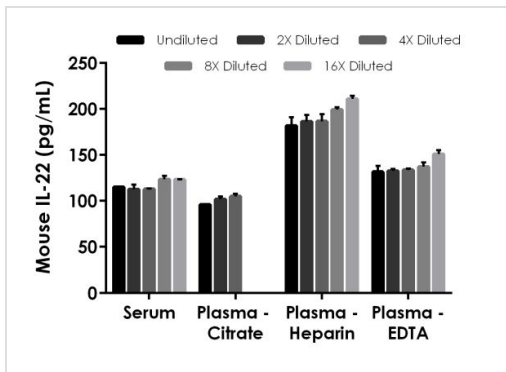


Standard curve comparison between mouse IL-22 SimpleStep ELISA[®] kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows comparable sensitivity.



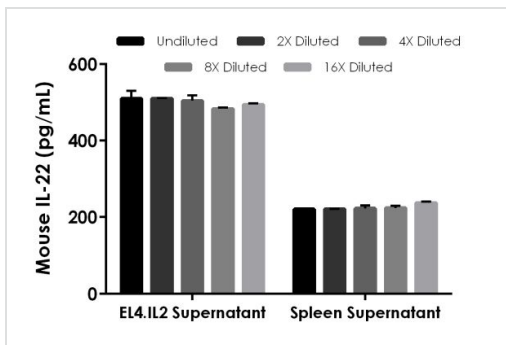
Example of Mouse IL-22 standard curve in Sample Diluent NS

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



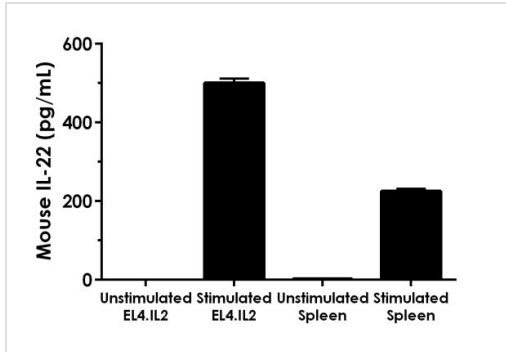
Interpolated concentrations of native IL-22 in Mouse serum and plasma samples

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 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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