

Product datasheet

Mouse IL-16 ELISA Kit ab201282

Recombinant SimpleStep ELISA

[5 Images](#)

Overview

Product name Mouse IL-16 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Mouse Serum	5			3.1%

Inter-assay

Sample	n	Mean	SD	CV%
Mouse Serum	3			5.3%

Sample type

Cell culture supernatant, Serum, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

3.6 pg/ml

Range

10.93 pg/ml - 700 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	106.2	98% - 111.5%
Cell culture media	92	87.4% - 99.5%
EDTA Plasma	104.6	102.4% - 106.4%
Cit plasma	106.8	100.5% - 111.6%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Mouse

Product overview

Mouse IL-16 ELISA Kit (ab201282) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of IL-16 protein in cell culture supernatant, cit plasma, edta plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse IL-16 with 3.6 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

IL-16 is a pro-inflammatory cytokine that stimulates a migratory response in CD4+ lymphocytes, monocytes, and eosinophils. IL-16 primes CD4+ T-cells for IL-2 and IL-15 responsiveness. It also induces T-lymphocyte expression of interleukin 2 receptor. IL-16 is a ligand for CD4. IL-16 is synthesized in much larger 3 precursor isoforms localized in cytoplasm and nucleus and processed into 121 amino acid-long secreted IL-16. The isoform 1 may act as a scaffolding protein that anchors ion channels in the membrane. The isoform 2 is involved in cell cycle progression in T-cells. Isoform 2 appears to be involved in transcriptional regulation of SKP2 and is probably part of a transcriptional repression complex on the core promoter of the SKP2 gene. It may act as a scaffold for GABPB1 (the DNA-binding subunit the GABP transcription factor complex) and HDAC3 thus maintaining transcriptional repression and blocking cell cycle progression in resting T-cells.

Platform

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-16 Capture Antibody	1 x 600µl
10X Mouse IL-16 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 5BC	1 x 6ml
Mouse IL-16 Lyophilized Recombinant Protein	2 vials

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

Function

Interleukin-16 stimulates a migratory response in CD4+ lymphocytes, monocytes, and eosinophils. Primes CD4+ T-cells for IL-2 and IL-15 responsiveness. Also induces T-lymphocyte expression of interleukin 2 receptor. Ligand for CD4.

Isoform 1 may act as a scaffolding protein that anchors ion channels in the membrane.

Isoform 3 is involved in cell cycle progression in T-cells. Appears to be involved in transcriptional regulation of SKP2 and is probably part of a transcriptional repression complex on the core promoter of the SKP2 gene. May act as a scaffold for GABPB1 (the DNA-binding subunit the GABP transcription factor complex) and HDAC3 thus maintaining transcriptional repression and blocking cell cycle progression in resting T-cells.

Tissue specificity

Isoform 3 is expressed in hemopoietic tissues, such as resting T-cells, but is undetectable during active T-cell proliferation.

Sequence similarities

Contains 4 PDZ (DHR) domains.

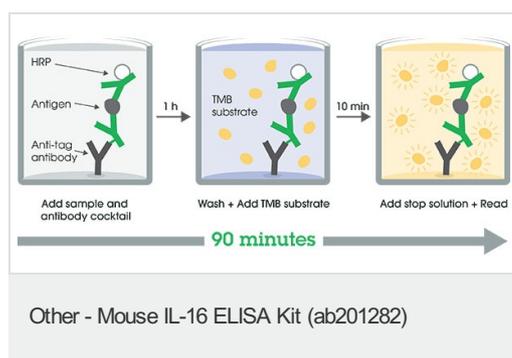
Post-translational modifications

Isoform 3 is synthesized as a chemo-attractant inactive precursor in hemopoietic tissues and is proteolytically cleaved by caspase-3 to yield IL-16.

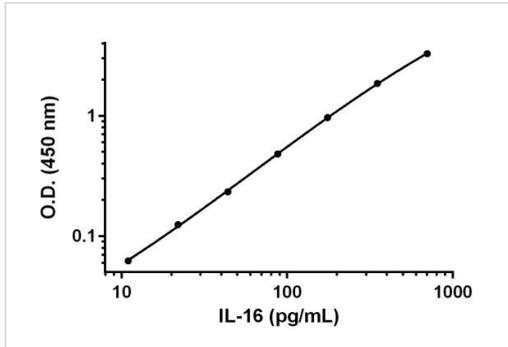
Cellular localization

Cytoplasm; Cytoplasm. Nucleus and Secreted.

Images

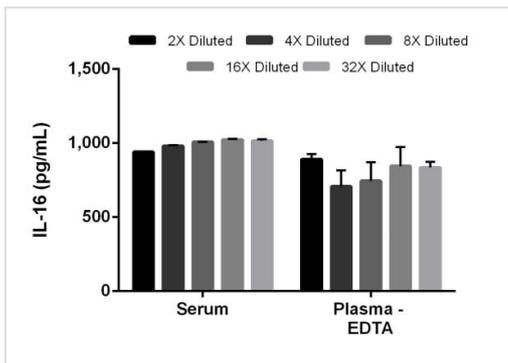


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



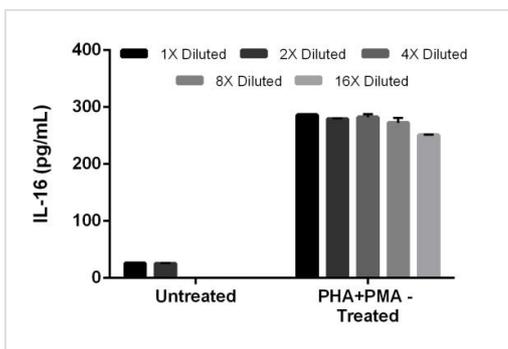
Example of IL-16 standard curve.

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



Interpolated concentrations of IL-16 in mouse serum and plasma samples.

The concentrations of IL-16 were measured in duplicates, interpolated from the IL-16 standard curve and corrected for sample dilution. The interpolated, dilution factor-corrected values are plotted (mean +/- SD, n=2).



PHA+PMA treatment of EL4.IL2 cells stimulates secretion of IL-16.

EL4.IL2 cells were cultured in the absence or presence of 1.5% PHA and 10 ng/mL PMA for 48 hours. The cell culture supernatants were collected and their dilutions (as indicated) were measured with this kit. Interpolated concentrations of IL-16 adjusted for sample dilution are graphed in pg of IL-16 per mL of supernatant (mean +/- SD, n = 2).

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Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Mouse IL-16 ELISA Kit
(ab201282)

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

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