abcam

Product datasheet

Mouse MBL ELISA Kit ab208343

Recombinant SimpleStep ELISA

9 Images

Overview

Product name Mouse MBL ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Mouse serum	5			7.3%

Inter-assay

Sample	n	Mean	SD	CV%
Mouse serum	4			14%

Sample type Cell culture supernatant, Serum, Plasma, Cell culture extracts, Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 8.5 pg/ml

Range 39.063 pg/ml - 2500 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	79.5	75% - 86.8%
Cell culture media	99.7	95.4% - 103.3%
Hep Plasma	96.6	88.8% - 101.2%
EDTA Plasma	94.9	74.1% - 102.3%
Cit plasma	102.7	90.8% - 117.3%

Assay time 1h 30m

Assay duration One step assay

Species reactivity

Reacts with: Mouse
Does not react with: Goat, Cow, Pig

Product overview

Mouse MBL ELISA Kit (ab208343) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of MBL protein in cell culture supernatant, serum, plasma, tissue extracts, and cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse MBL with 8.5 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

MBL is a secreted calcium-dependent lectin involved in innate immune defense. MBL binds mannose, fucose and N-acetylglucosamine on different microorganisms and activates the lectin complement pathway. MBL binds to late apoptotic cells, as well as to apoptotic blebs and to necrotic cells, but not to early apoptotic cells, facilitating their uptake by macrophages.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Pre-coated microplate (12 x 8 well strips)

Properties

Storage instructions

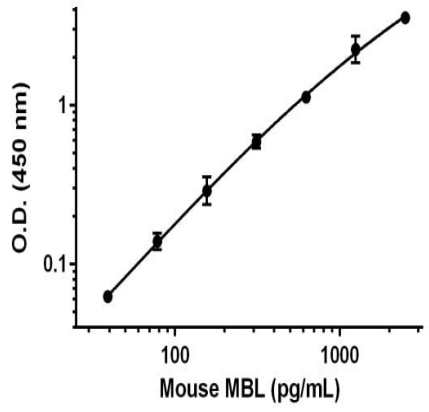
Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Mouse MBL Capture Antibody	1 x 600µl
10X Mouse MBL Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BR	1 x 6ml

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

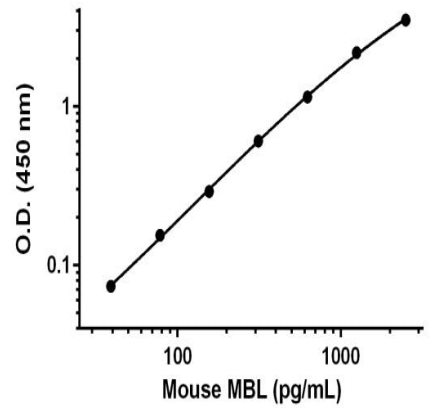
Function	Calcium-dependent lectin involved in innate immune defense. Binds mannose, fucose and N-acetylglucosamine on different microorganisms and activates the lectin complement pathway. Binds to late apoptotic cells, as well as to apoptotic blebs and to necrotic cells, but not to early apoptotic cells, facilitating their uptake by macrophages. May bind DNA.
Tissue specificity	Plasma protein produced mainly in the liver.
Involvement in disease	Note=There is an association between low levels of MBL2 and a defect of opsonization which results in susceptibility to frequent and chronic infections.
Sequence similarities	Contains 1 C-type lectin domain. Contains 1 collagen-like domain.
Cellular localization	Secreted.

Images



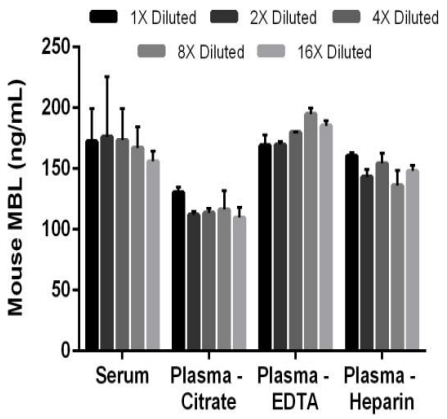
Example of mouse MBL standard curve in Sample Diluent NS

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



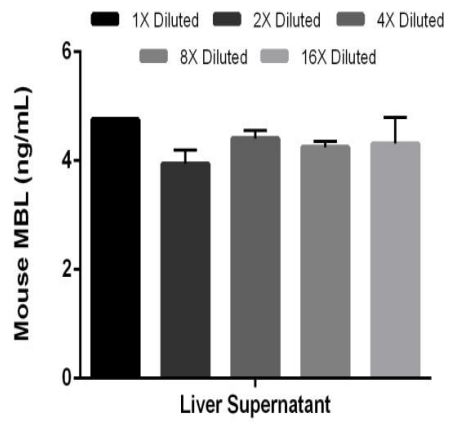
Example of mouse MBL standard curve in 1X Cell Extraction Buffer PTR

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



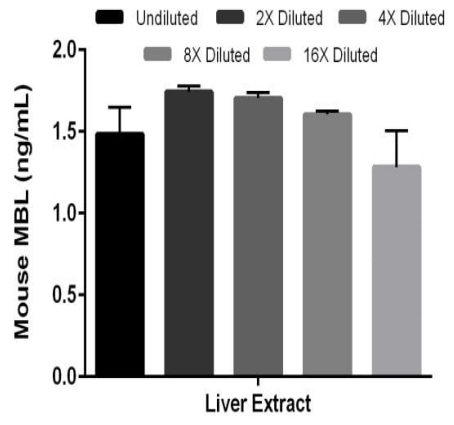
Interpolated concentrations of native MBL in mouse serum and plasma samples

The concentrations of MBL were measured in duplicates, interpolated from the MBL standard curves and corrected for sample dilution. 1X diluted samples are pre-diluted as follows: serum 1:83, plasma (citrate) 1:83, plasma (EDTA) 1:167, plasma (heparin) 1:167. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MBL concentration was determined to be 169.0 ng/mL in serum, 116.5 ng/mL in plasma (citrate), 179.8 ng/mL in plasma (EDTA) and 148.4 ng/mL in plasma (heparin).



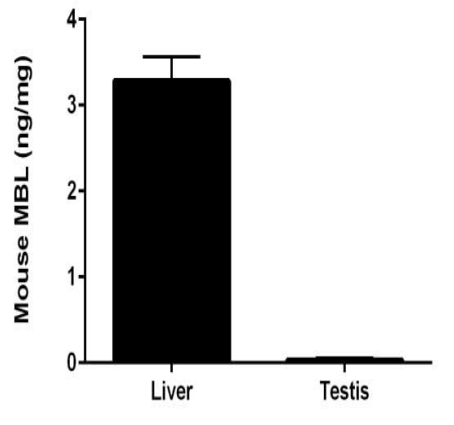
Interpolated concentrations of native MBL in mouse liver supernatant samples

Mouse liver cells were cultured for 5 days in a medium and supernatant sample was prepared. The concentrations of MBL were measured in duplicates, interpolated from the MBL standard curves and corrected for sample dilution. 1X diluted samples are pre-diluted as follows: liver supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MBL concentration was determined to be 4.3 ng/mL in liver supernatant.



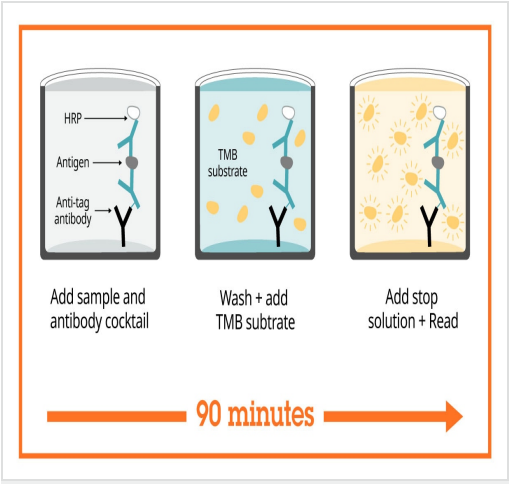
Interpolated concentrations of native MBL in mouse liver extract samples based on a 500 µg/mL extract load

The concentrations of MBL were measured in duplicate and interpolated from the MBL standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean MBL concentration was determined to be 1.56 ng/mL in liver extract sample.



Interpolated concentrations of native MBL in mouse liver and testis extract samples

The concentrations of MBL were measured in three different dilutions in duplicate and interpolated from the MBL standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted in ng of MBL per mg of extract (mean +/- SD, n=3).

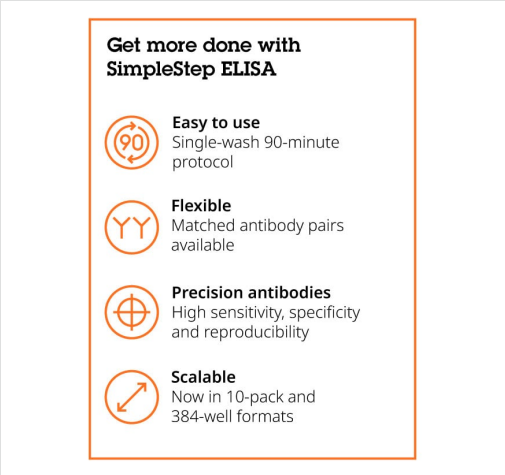


Sandwich ELISA - Mouse MBL ELISA Kit (ab208343)

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.

Sandwich ELISA - Mouse MBL ELISA Kit (ab208343)

To learn more about the advantages of recombinant antibodies see **here**.



Sandwich ELISA - Mouse MBL ELISA Kit (ab208343)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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