

Product datasheet

Mouse TLR2 ELISA Kit ab224880

SimpleStep ELISA

[6 Images](#)

Overview

Product name Mouse TLR2 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Cell Extract	5			4.5%

Inter-assay

Sample	n	Mean	SD	CV%
Cell Extract	3			8.1%

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

Assay type Sandwich (quantitative)

Sensitivity 88 pg/ml

Range 312.5 pg/ml - 20000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	94	89% - 98%
Cell culture extracts	102	91% - 112%
Cell culture media	101	98% - 102%
Hep Plasma	89	88% - 91%
EDTA Plasma	97	91% - 103%

Sample type	Average %	Range
Cit plasma	99	96% - 103%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Mouse

Does not react with: Cow

Product overview

TLR2 *in vitro* SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of TLR2 protein in Mouse serum, plasma, cell culture media, cell and tissue extract.

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.

Toll-Like Receptor 2 (TLR2) is a transmembrane receptor, expressed on a wide variety of cell types including microglia, monocytes, macrophages, and dendritic cells. TLR2 cooperates with multiple other proteins (TLR1, LY96, TLR6, and other) to mediate an immune response to bacterial lipoproteins. Cytokine secretion in response to these bacterium is found to occur in a TLR2 dependent fashion. Ab224880 recognizes the extracellular domain of the transmembrane receptor.

Sensitivity:

Samples diluted in Sample Diluent NS: 88 pg/mL.

Samples diluted in 1X Cell Extraction Buffer PTR: 250 pg/mL.

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 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml

Components	1 x 96 tests
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BR	1 x 6ml
10X Mouse TLR2 Capture Antibody	1 x 600µl
10X Mouse TLR2 Detector Antibody	1 x 600µl
Mouse TLR2 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

Cooperates with LY96 to mediate the innate immune response to bacterial lipoproteins and other microbial cell wall components. Cooperates with TLR1 to mediate the innate immune response to bacterial lipoproteins or lipopeptides. Acts via MYD88 and TRAF6, leading to NF-kappa-B activation, cytokine secretion and the inflammatory response. May also promote apoptosis in response to lipoproteins. Recognizes mycoplasmal macrophage-activating lipopeptide-2kD (MALP-2), soluble tuberculosis factor (STF), phenol-soluble modulin (PSM) and B.burgdorferi outer surface protein A lipoprotein (OspA-L) cooperatively with TLR6.

Tissue specificity

Highly expressed in peripheral blood leukocytes, in particular in monocytes, in bone marrow, lymph node and in spleen. Also detected in lung and in fetal liver. Levels are low in other tissues.

Sequence similarities

Belongs to the Toll-like receptor family.
Contains 14 LRR (leucine-rich) repeats.
Contains 1 TIR domain.

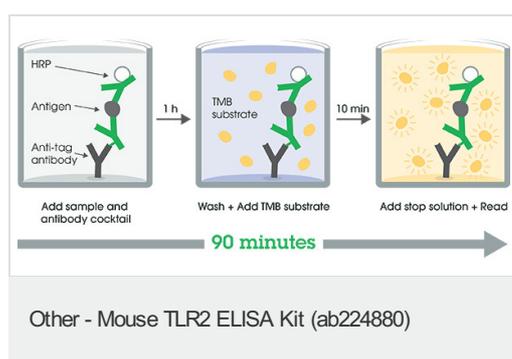
Post-translational modifications

Glycosylation of Asn-442 is critical for secretion of the N-terminal ectodomain of TLR2.

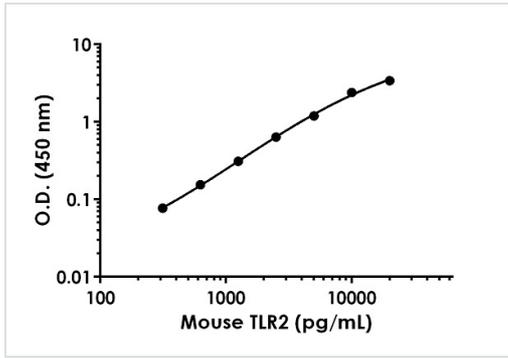
Cellular localization

Membrane.

Images

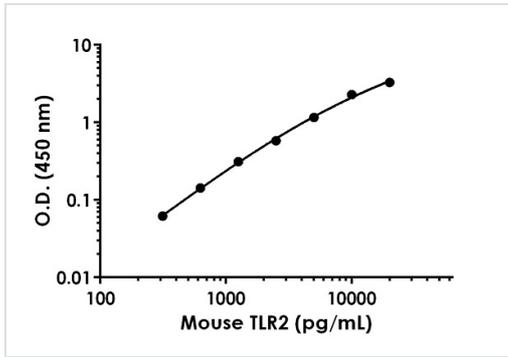


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



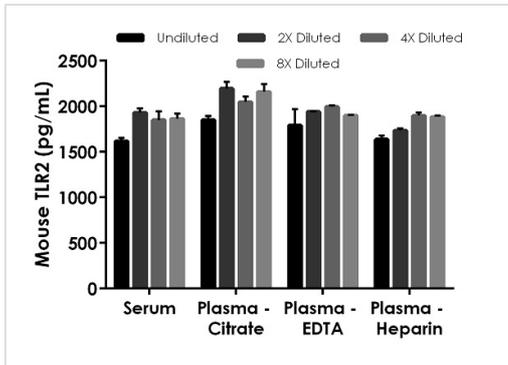
Example of Mouse TLR2 standard curve in Sample Diluent NS.

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



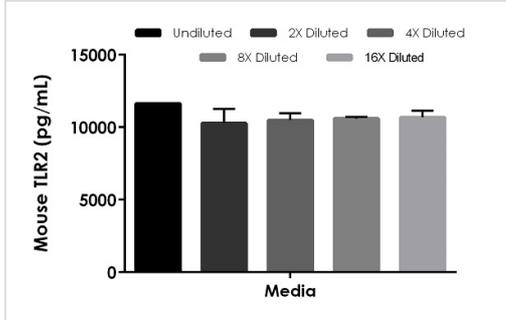
Example of Mouse TLR2 standard curve in 1X Cell Extraction Buffer PTR.

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



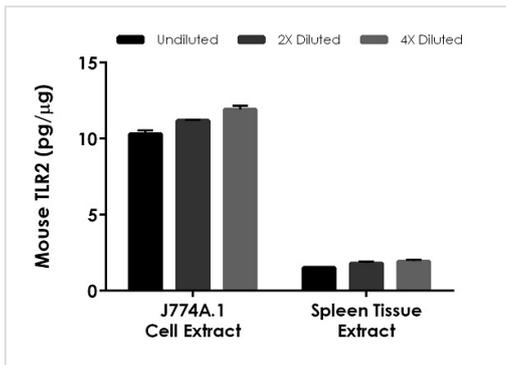
Interpolated concentrations of spike TLR2 in Mouse serum and plasma samples.

The concentrations of TLR2 were measured in duplicates, interpolated from the TLR2 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 12.5%, plasma (citrate) 12.5%, plasma (EDTA) 12.5%, and plasma (heparin) 12.5%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of spike TLR2 in cell culture media sample.

The concentrations of TLR2 were measured in duplicates, interpolated from the TLR2 standard curves and corrected for sample dilution. Undiluted sample is 50% cell culture media. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).



Interpolated concentrations of native TLR2 in Mouse cell and tissue extract samples.

The concentrations of TLR2 were measured in duplicate and interpolated from the TLR2 standard curve and corrected for sample dilution and extract load. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean TLR2 concentration was determined to be 11.1 pg/μg in J774A.1 Cell Extract and 1.75 pg/μg in Spleen Tissue Extract.

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