

Product datasheet

Mouse C Reactive Protein ELISA Kit ab222511

Recombinant SimpleStep ELISA[®]

[4 References](#) [7 Images](#)

Overview

Product name Mouse C Reactive Protein ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	5			2.4%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			2.1%

Sample type Serum, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 17 pg/ml

Range 156.25 pg/ml - 10000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	111	109% - 113%
Tissue Extracts	115	103% - 122%
Hep Plasma	113	110% - 117%
EDTA Plasma	107	103% - 109%
Cit plasma	108	90% - 117%

Assay time 1h 30m

Assay duration One step assay

Species reactivity

Reacts with: Mouse

Does not react with: Cow

Product overview

Mouse C Reactive Protein ELISA Kit (ab222511) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of C Reactive Protein protein in cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse C Reactive Protein with 31 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

C Reactive Protein displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. C Reactive Protein can interact with DNA and histones and it may scavenge nuclear material released from damaged circulating cells. C Reactive Protein is secreted; it forms a homopentamer pentaxin (or pentraxin) which have a discoid arrangement of 5 non-covalently bound subunits. C Reactive Protein binds 2 calcium ions per subunit. The concentration of C Reactive Protein in plasma increases greatly during acute phase response to tissue injury, infection or other inflammatory stimuli. It is induced by IL1/interleukin-1 and IL6//interleukin-6.

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

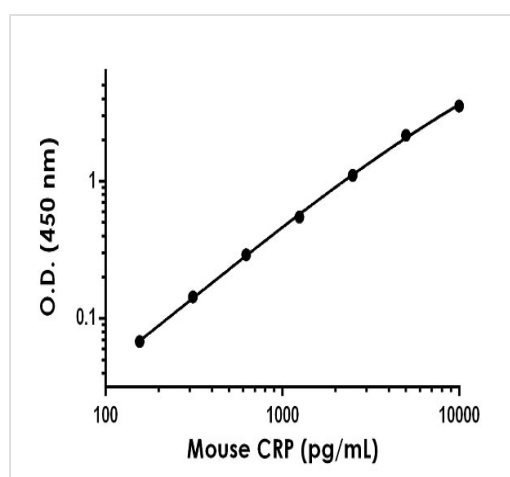
Please refer to protocols.

Components	1 x 96 tests	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml	1 x 10ml

Components	1 x 96 tests	1 x 96 tests
Antibody Diluent 4BR	1 x 6ml	1 x 6ml
Mouse C Reactive Protein Capture Antibody Concentrate	1 x 22µl	1 x 22µl
Mouse C Reactive Protein Detector Antibody Concentrate	1 x 22µl	1 x 22µl
Mouse C Reactive Protein Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 50ml	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

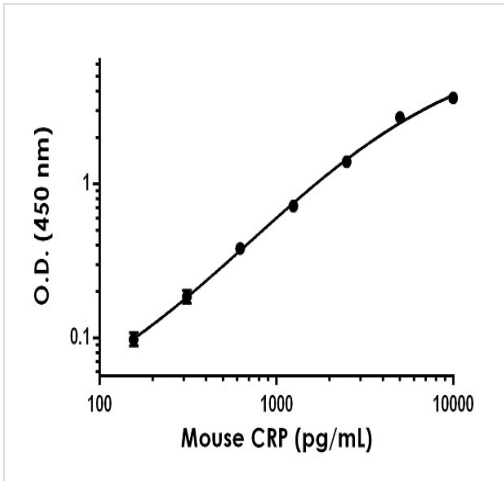
Function	Displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. Can interact with DNA and histones and may scavenge nuclear material released from damaged circulating cells.
Tissue specificity	Found in plasma.
Sequence similarities	Belongs to the pentaxin family. Contains 1 pentaxin domain.
Cellular localization	Secreted.

Images



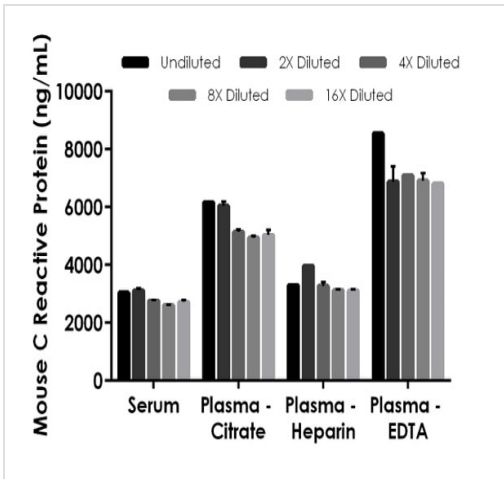
Example of mouse C Reactive Protein standard curve in Sample Diluent NS + Enhancer.

The C Reactive Protein standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean \pm SD) are graphed.



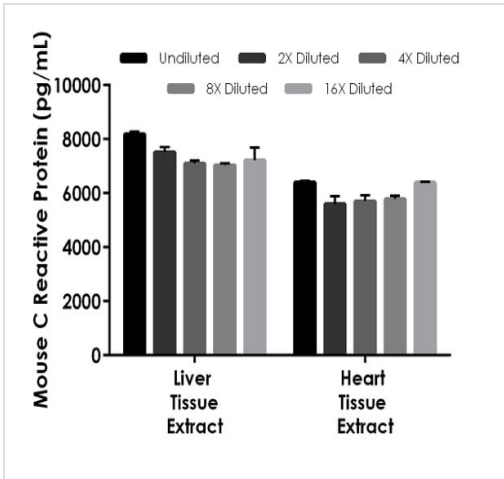
Example of mouse C Reactive Protein standard curve in 1X Cell Extraction Buffer PTR.

The C Reactive Protein standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



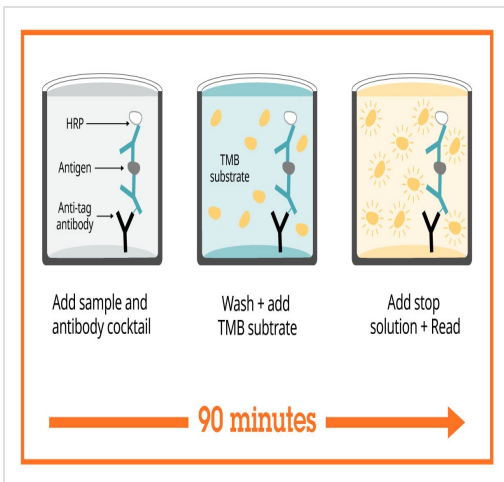
Interpolated concentrations of native C Reactive Protein in mouse serum and plasma samples.

The concentrations of C Reactive Protein were measured in duplicates, interpolated from the C Reactive Protein standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 1:400, plasma (citrate) 1:800, plasma (heparin) 1:400, and plasma (EDTA) 1:1600. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean C Reactive Protein concentration was determined to be 2854 ng/mL in neat serum, 5469 ng/mL in neat plasma (citrate), 3358 ng/mL in neat plasma (heparin), and 7251 ng/mL in neat plasma (EDTA).



Interpolated concentrations of native C Reactive Protein in mouse liver tissue extract.

Based on a 200 µg/mL extract load and mouse heart tissue extract based on a 500 µg/mL extract load. The concentrations of C Reactive Protein were measured in duplicate and interpolated from the C Reactive Protein standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean C Reactive Protein concentration was determined to be 7416 pg/mL in mouse liver tissue extract and 5978 pg/mL in mouse heart tissue extract.



Sandwich ELISA - Mouse C Reactive Protein ELISA Kit (ab222511)

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.

Powered by recombinant antibodies

- Research with confidence:** 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 C Reactive Protein ELISA Kit (ab222511)

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

Get more done with SimpleStep ELISA



Easy to use
Single-wash 90-minute protocol



Flexible
Matched antibody pairs available



Precision antibodies
High sensitivity, specificity and reproducibility



Scalable
Now in 10-pack and 384-well formats

Sandwich ELISA - Mouse C Reactive Protein ELISA
Kit (ab222511)

To learn more about the advantages of SimpleStep ELISA® kits see [here](#).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors