

Human C Reactive Protein ELISA Kit ab181416

SimpleStep ELISA

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概述

产品名称 人C Reactive蛋白ELISA试剂盒

检测方法 Colorimetric

精确度 批次内

样品	n	Mean	SD	CV%
Human serum	5			1.5%

批次间

样品	n	Mean	SD	CV%
Human serum	3			7.2%

样品类型 Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

检测类型 Sandwich (quantitative)

灵敏度 4 pg/ml

范围 15.63 pg/ml - 1000 pg/ml

回收率 90.1 %

特定样本回收率

样品类型	平均%	范围
Cell culture media	90.1	88.3% - 93.4%

检测时间 1h 30m

实验步骤 One step assay

种属反应性 与反应: Human

产品概述 Human C-Reactive Protein (CRP) ELISA kit has been re-developed. We have identified new recombinant monoclonal antibodies to provide improved performance and consistency. This version will be discontinued when inventory is depleted. The new version is available as [ab260058](#).

Human CRP ELISA kit (ab181416) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CRP protein in human cell culture supernatant, serum and plasma samples. It uses our proprietary SimpleStep ELISA® technology. Quantitate human CRP with 4 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.

说明

CRP displays several functions associated with host defense: it promotes agglutination, bacterial capsular swelling, phagocytosis and complement fixation through its calcium-dependent binding to phosphorylcholine. CRP can interact with DNA and histones and it may scavenge nuclear material released from damaged circulating cells. CRP is secreted; it forms a homopentamer pentaxin (or pentraxin) which have a discoid arrangement of 5 non-covalently bound subunits. CRP binds 2 calcium ions per subunit. The concentration of CRP 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.

平台

Microplate

性能

存放说明

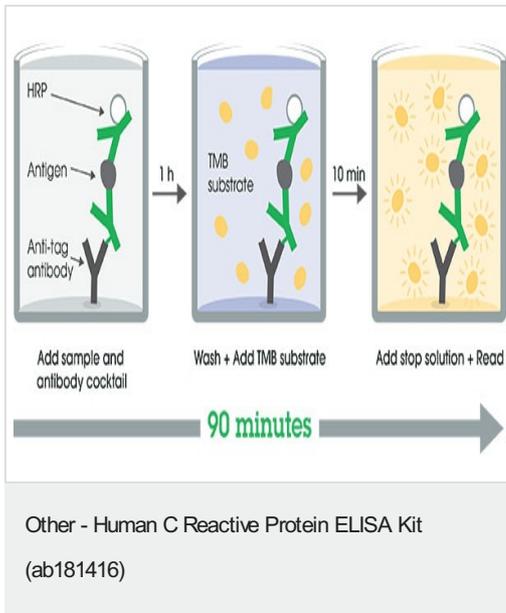
Store at +4°C. Please refer to protocols.

Components	
Plate Seals	1 x unit
10X Wash Buffer PT (ab206977)	1 x 20ml
TMB Development Solution	1 x 12ml
Stop Solution	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 x unit
10X Human CRP Capture Antibody	1 x 600µl
10X Human CRP Detector Antibody	1 x 600µl
Human CRP Lyophilized Recombinant Protein	2 x 1vial

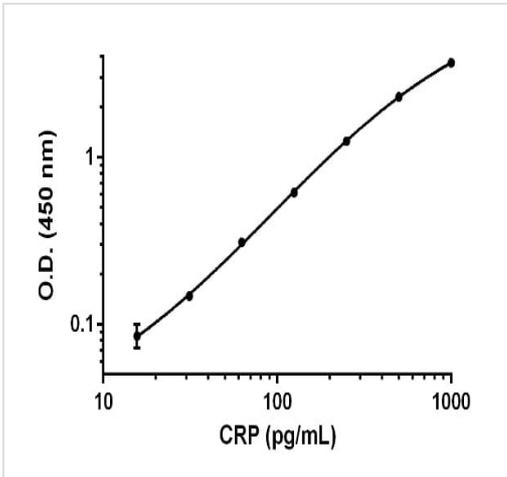
Components	
Sample Diluent NS (ab193972)	1 x 50ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml

功能	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.
组织特异性	Found in plasma.
序列相似性	Belongs to the pentaxin family. Contains 1 pentaxin domain.
细胞定位	Secreted.

图片

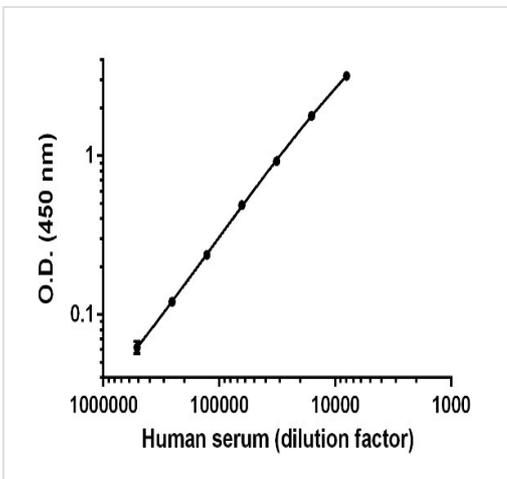


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



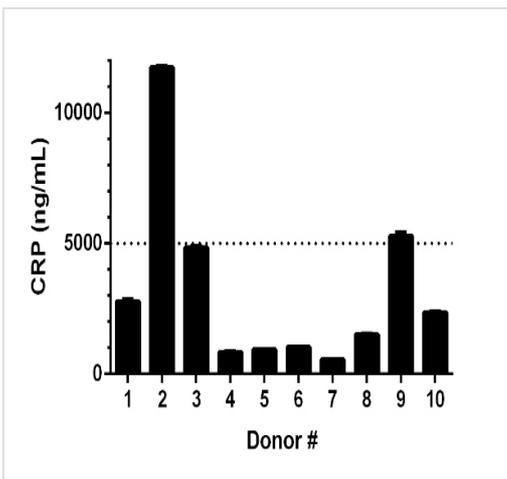
Example of CRP standard curve.

Background-subtracted data values (mean +/- SD, n=2) are graphed.



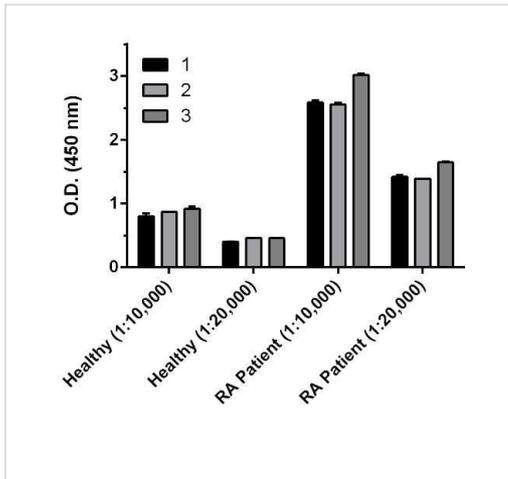
Titration of pooled Human serum within the working range of the assay.

Background subtracted data values (mean +/- SD, n=2) are graphed.



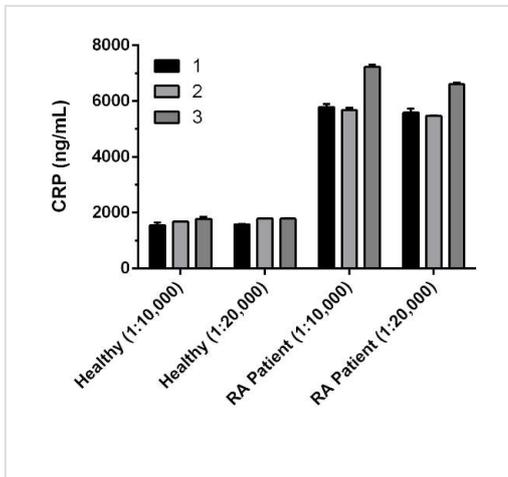
CRP concentrations in 10 individual Human serum donors.

10,000X diluted sera from 10 apparently healthy male donors were measured using this kit. Interpolated data values corrected for sample dilution are graphed in ng of CRP per mL of serum (mean +/- SD, n=2). Nine out of ten individual Human sera tested within or at reported Human serum range (< 5,000 ng/mL, dotted line). The mean of CRP concentration of these nine individual sera was determined to be 2,240 ng/mL with a range of 559 – 5,285 ng/mL. Note that one individual Human serum sample (donor # 2) tested substantially higher, 11,737 ng/mL.



Background subtracted data values of two serum dilutions (as indicated in parenthesis) are graphed (mean +/- SD, n=2).

Comparison of CRP signals in three healthy and three rheumatoid arthritis patient sera.



The concentrations of CRP were interpolated from data values shown above using the CRP standard curve, corrected for sample dilution, and graphed in ng of CRP per mL of serum. As expected, note that the CRP serum concentrations are increased in RA patients.

Quantification of CRP concentrations in three healthy and three rheumatoid arthritis (RA) patient sera.

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