

# Human Complement C4-Binding Protein ELISA Kit

## ab222866

[2 References](#)   [1 Image](#)

Overview

Product name	Human Complement C4-Binding Protein ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Overall				4.7%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Overall				10.3%
Sample type	Cell culture supernatant, Saliva, Milk, Urine, Serum, Plasma, Cerebral Spinal Fluid				
Assay type	Sandwich (quantitative)				
Sensitivity	0.14 ng/ml				
Range	1.875 ng/ml - 15 ng/ml				
Recovery	96 %				
Assay time	4h 00m				
Assay duration	Multiple steps standard assay				
Species reactivity	<b>Reacts with:</b> Human <b>Does not react with:</b> Mouse, Rat, Cow, Dog, Pig, Monkey				
Product overview	ab222866 Human Complement C4-Binding Protein ELISA Kit is designed for the quantitative measurement of Complement C4-Binding Protein in plasma, serum, urine, milk, saliva, cerebrospinal fluid (CSF), and cell culture samples.				

The kit employs a quantitative sandwich enzyme immunoassay technique that measures human Complement C4-Binding Protein (C4BP) in less than 4 hours. A polyclonal antibody specific for human complement C4BP has been pre-coated onto a 96-well microplate with removable strips. Complement C4BP in standards and samples is sandwiched by the immobilized antibody and biotinylated polyclonal antibody specific for complement C4BP, which is recognized by a

streptavidin-peroxidase conjugate. All unbound material is washed away and a peroxidase enzyme substrate is added. The color development is stopped and the intensity of the color is measured.

**The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.**

**Notes**

Complement component C4-binding protein (C4BP) regulates the complement system by accelerating the decay of the complement component C3 convertase and by acting as a cofactor to the serine protease factor I in the degradation of C4b. C4BP is a high molecular mass (570 kDa) glycoprotein and is present in plasma in various isoforms with different alpha beta composition. The major form of C4BP is composed of seven identical 70-kDa alpha chains, each containing a binding site for the complement protein C4b, and a unique 45 kDa beta chain which contains a binding site for the vitamin K-dependent protein S. C4BP was overexpressed in the synovial membranes of patients with rheumatoid arthritis. It was detected in amyloid-beta plaques and on apoptotic cells.

**Platform** Pre-coated microplate (12 x 8 well strips)

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

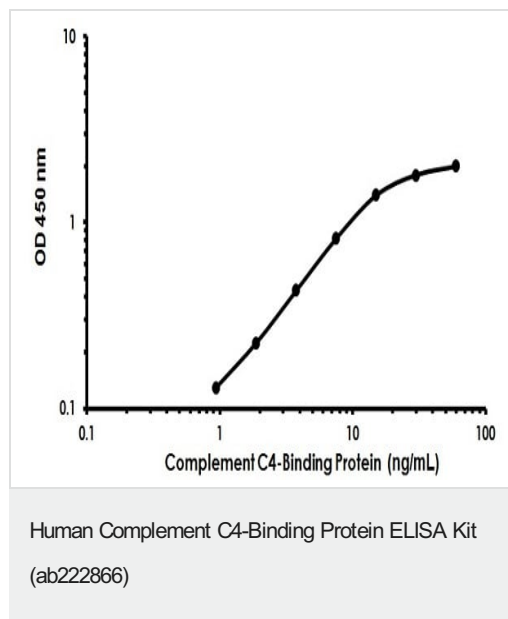
Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human Complement C4BP	1 x 120µl
Anti- Human Complement C4BP coated Microplate (12 x 8 wells)	1 unit
Chromogen Substrate	1 x 7ml
Human Complement C4BP Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

**Function**

Controls the classical pathway of complement activation. It binds as a cofactor to C3b/C4b inactivator (C3bINA), which then hydrolyzes the complement fragment C4b. It also accelerates the degradation of the C4bC2a complex (C3 convertase) by dissociating the complement fragment C2a. It also interacts with anticoagulant protein S and with serum amyloid P component. The beta chain binds protein S.

**Sequence similarities** Contains 3 Sushi (CCP/SCR) domains.

**Cellular localization** Secreted.



Example of human Complement C4-Binding Protein standard curve.

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

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