

Product datasheet

Human Complement Factor P ELISA Kit ab222864

[1 Image](#)

Overview

Product name Human Complement Factor P ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Plasma 1	20			5.1%
Plasma 2	20			4.8%
Plasma 3	20			5%

Inter-assay

Sample	n	Mean	SD	CV%
Plasma 1	20			9.9%
Plasma 2	20			9.7%
Plasma 3	20			10.2%

Sample type Cell culture supernatant, Saliva, Urine, Serum, Plasma, Cerebral Spinal Fluid

Assay type Sandwich (quantitative)

Sensitivity 0.1 ng/ml

Range 0.156 ng/ml - 10 ng/ml

Recovery 96 %

Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Does not react with: Mouse, Rat, Rabbit, Cow, Dog, Pig

Product overview

The Human Complement Factor P (CFP) ELISA (Enzyme-Linked Immunosorbent Assay) Kit (ab222864) is designed for detection of Complement Factor P in human plasma, serum, urine, saliva, CSF, and cell culture samples.

This assay employs a quantitative sandwich enzyme immunoassay technique that measures human Complement Factor P in approximately 4 hours. A polyclonal antibody specific for human Complement Factor P has been pre-coated onto a 96-well microplate with removable strips. Complement Factor P in standards and samples is sandwiched by the immobilized antibody and a biotinylated polyclonal antibody specific for human Complement Factor P, which is recognized by a streptavidin-peroxidase (SP) 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 factor P (CFP), also known as properdin, is a plasma glycoprotein that positively regulates the alternative complement pathway convertases (C3bBb) of the innate immune system. CFP consists of 442-amino acids with a molecular weight of 53 kDa and is composed of multiple identical protein subunits. The subunits bind to each other in a head to tail manner to form cyclic dimers, trimers, tetramers, pentamers, and higher cyclic oligomers. It is mainly produced by neutrophils but also by monocytes, T cells, and bone marrow progenitor cells. CFP binds to many microbial surfaces and apoptotic cells. Complement factor P also stabilizes the C3- and C5-convertase enzyme complexes in a feedback loop that ultimately leads to formation of the membrane attack complex and lysis of the target cell.

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 M Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
Anti-Human Complement Factor P coated Microplate (12 x 8 wells)	1 unit
50X Biotinylated Human Complement Factor P	1 x 120µl
Chromogen Substrate	1 x 8ml
Human Complement Factor P Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 12ml

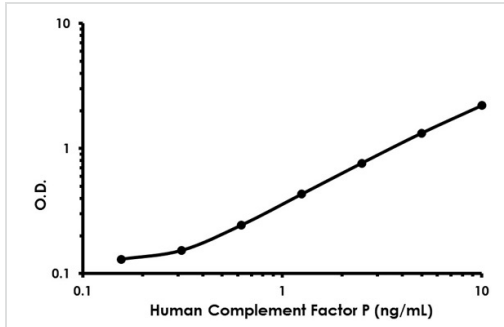
Relevance Factor P (Properdin) is a plasma protein that is active in the alternative complement pathway of the innate immune system. It is a positive regulatory factor that binds to many microbial surfaces to stabilize the C3b,Bb convertase. The C3b,Bb convertase then rapidly cleaves more C3 to C3b, which acts either as an opsonin or to reinitiate the pathway in an amplification loop that proceeds

on the bacterial cell, but not on the host cell. In the alternative pathway, C3 is thus activated through factor B, factor D, and properdin P, under the control of factors I and H. Deficiency of properdin is associated in particular with a heightened susceptibility to *Neisseria* species.

Cellular localization

Secreted

Images



Example of human Complement Factor P standard curve in 1X Diluent M. The standard curve was prepared as described in Section 10. Background-subtracted data values (mean \pm SD) are graphed.

Human Complement Factor P standard curve example

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