

Human Complement C5 ELISA Kit ab125963

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Overview

Product name Human Complement C5 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				5.6%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				10.1%

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

Assay type Sandwich (quantitative)

Sensitivity 53 pg/ml

Range 0.156 ng/ml - 10 ng/ml

Recovery 101 %

Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview

Human Complement C5 ELISA kit (Enzyme-Linked Immunosorbent Assay) is designed for the quantitative measurement of C5 in human plasma, serum, saliva, milk, CSF and cell culture supernatants.

A Complement C5 specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Complement C5 specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Complement C5 captured in plate.

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

Platform Microplate

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 C5 Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Complement C5 Microplate (12 x 8 well strips)	1 unit
Complement C5 Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

Function

Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. Derived from proteolytic degradation of complement C5, C5 anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes. C5a also stimulates the locomotion of polymorphonuclear leukocytes (chemokinesis) and direct their migration toward sites of inflammation (chemotaxis).

Involvement in disease

Defects in C5 are the cause of complement component 5 deficiency (C5D) [MIM:609536]. A rare defect of the complement classical pathway associated with susceptibility to severe recurrent infections, predominantly by *Neisseria gonorrhoeae* or *Neisseria meningitidis*.
Note=An association study of C5 haplotypes and genotypes in individuals with chronic hepatitis C virus infection shows that individuals homozygous for the C5_1 haplotype have a significantly higher stage of liver fibrosis than individuals carrying at least 1 other allele (PubMed:15995705).

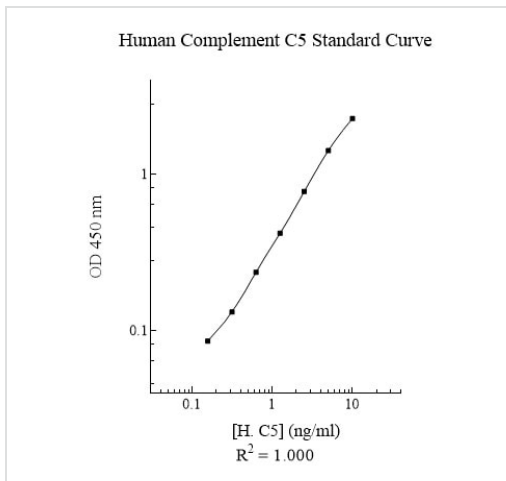
Sequence similarities

Contains 1 anaphylatoxin-like domain.
Contains 1 NTR domain.

Cellular localization

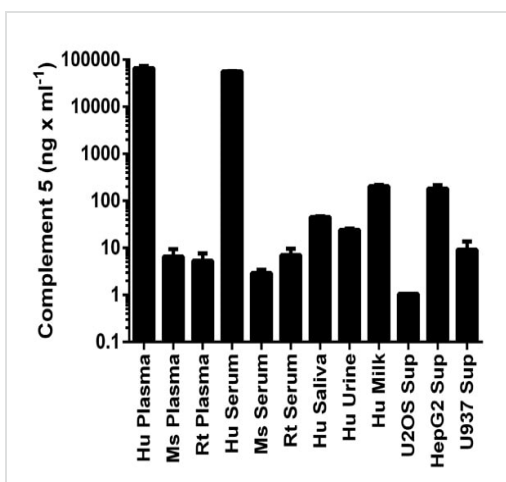
Secreted.

Images



Representative Standard Curve using ab125963

Human Complement C5 typical standard curve



Complement 5 measured in biological fluids and cell culture medium with background signal subtracted (duplicates +/- SD).

Sandwich ELISA - Complement C5 Human ELISA Kit (ab125963)

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