# abcam

# Product datasheet

# Human Complement C5a ELISA Kit ab193695

4 References 2 Images

Overview

**Precision** 

Product name Human Complement C5a ELISA Kit

**Detection method**Colorimetric

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Sample	n	Mean	SD	CV%
Overall				< 10%

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				< 12%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity 31 pg/ml

**Range** 31 pg/ml - 2000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	127.1	122% - 138%
Plasma	122.5	114% - 130%
Cell culture media	92.43	70% - 104%

**Assay duration** Multiple steps standard assay

Species reactivity Reacts with: Human

**Product overview** Abcam's Complement C5a Human ELISA Kit (ab193695) is an in vitro enzyme-linked

immunosorbent assay for the quantitative measurement of Human C5A in serum, plasma and cell

culture supernatants.

This assay employs an antibody specific for Human C5a coated on a 96-well plate. Standards and samples are pipetted into the wells and the immobilized antibody captures C5a present in the

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samples. The wells are washed and biotinylated anti-Human C5a antibody is added. After washing away any unbound biotinylated antibody, an HRP-conjugated streptavidin is pipetted to the wells. After incubation, the wells are again washed, followed by the addition of a TMB substrate solution to the wells. Color will develop in proportion to the amount of C5a bound in each well. Addition of the Stop Solution will change the color from blue to yellow, and the intensity of the color is measured at 450 nm.

**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
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated Human C5a detection antibody	2 vials
Human C5a Standards (lyophilized)	2 vials
Pre-coated Human C5a Microplate (12 Strips x 8 wells)	1 unit
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

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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

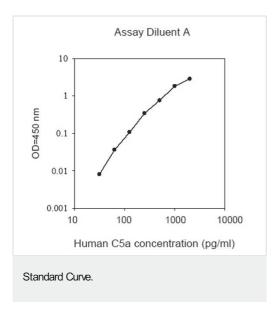
Contains 1 anaphylatoxin-like domain.

Contains 1 NTR domain.

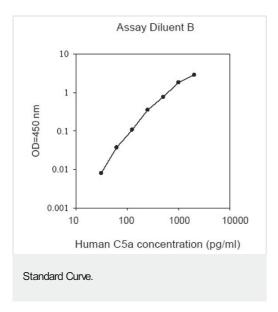
#### **Cellular localization**

Secreted.

#### **Images**



Standard Curve in Assay Diluent A using ab193695 Complement C5a Human ELISA Kit.



Standard Curve in Assay Diluent B using ab193695 Complement C5a Human ELISA Kit.

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