

## Datasheet for ABIN1672870 **C5A ELISA Kit**

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### 1 Image

#### Overview

Quantity: 96 tests

Target: C5A (C5a)

Binding Specificity: AA 678-751

Reactivity: Human

Method Type: Sandwich ELISA

Detection Range: 31.2-2000 pg/mL

Minimum Detection Limit: 31.2 pg/mL

Application: ELISA

#### Product Details

Purpose: Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human complement C5a

Brand: PicoKine™

Sample Type: Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)

Analytical Method: Quantitative

Detection Method: Colorimetric

Immunogen: Expression system for standard: E.coli  
Immunogen sequence: T678-R751

Specificity: Expression system for standard: E.coli  
Immunogen sequence: T678-R751

Cross-Reactivity (Details): There is no detectable cross-reactivity with other relevant proteins.

## Product Details

|                        |  |
|------------------------|--|
| Sensitivity:           | <10pg/mL   |
| Material not included: | Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl |

## Target Details

|                   |   |
|-------------------|---|
| Target:           | C5A (C5a)   |
| Alternative Name: | complement C5a ( <a href="#">C5a Products</a> )   |
| Background:       | <p>Protein 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.</p> <p>Background: C5a is a protein fragment released from complement component C5. This gene is mapped to 9q33.2. The protein encoded by this gene is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is comprised of alpha and beta polypeptide chains that are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin that possesses potent spasmogenic and chemotactic activity, is derived from the alpha polypeptide via cleavage with a convertase. The C5b macromolecular cleavage product can form a complex with the C6 complement component, and this complex is the basis for formation of the membrane attack complex, which includes additional complement components. Mutations in this gene cause complement component 5 deficiency, a disease where patients show a propensity for severe recurrent infections. Defects in this gene have also been linked to susceptibility to liver fibrosis and to rheumatoid arthritis.</p> <p>Synonyms: Complement C5,C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4,Complement C5 beta chain,Complement C5 alpha chain,C5a anaphylatoxin,Complement C5 alpha' chain,C5,CPAMD4,</p> <p>Full Gene Name: Complement C5</p> <p>Cellular Localisation: Secreted.</p> |
| Gene ID:          | 727   |
| UniProt:          | <a href="#">P01031</a>  |
| Pathways:         | <a href="#">Complement System</a> , <a href="#">Carbohydrate Homeostasis</a>  |

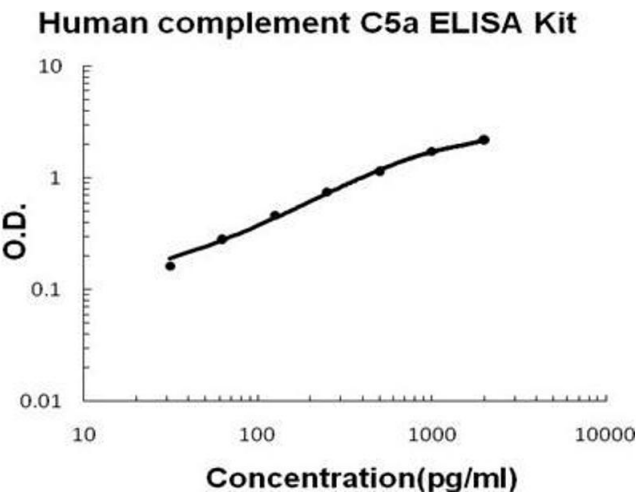
## Application Details

|                    |   |
|--------------------|---|
| Application Notes: | Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.  |
| Comment:           | Sequence similarities: Contains 1 anaphylatoxin-like domain.  |
| Plate:             | Pre-coated  |
| Protocol:          | human complement C5a ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for complement C5a has been precoated onto 96-well plates. Standards(E.coli, T678-R751) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for complement C5a is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human complement C5a amount of sample captured in plate. |
| Assay Procedure:   | Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human complement C5a standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human complement C5a standard solution and each sample be measured in duplicate.  |
| Assay Precision:   | <ul style="list-style-type: none"><li>• Sample 1: n=16, Mean(pg/ml): 115, Standard deviation: 4.14, CV(%): 3.6</li><li>• Sample 2: n=16, Mean(pg/ml): 437, Standard deviation: 22.72, CV(%): 5.2</li><li>• Sample 3: n=16, Mean(pg/ml): 1194, Standard deviation: 68.06, CV(%): 5.7,</li><li>• Sample 1: n=24, Mean(pg/ml): 124, Standard deviation: 7.94, CV(%): 6.4</li><li>• Sample 2: n=24, Mean(pg/ml): 462, Standard deviation: 31.42, CV(%): 6.8</li><li>• Sample 3: n=24, Mean(pg/ml): 1283, Standard deviation: 106.49, CV(%): 8.3</li></ul>   |
| Restrictions:      | For Research Use only   |
| Handling           |   |
| Handling Advice:   | Avoid multiple freeze-thaw cycles.  |
| Storage:           | -20 °C, 4 °C  |
| Storage Comment:   | Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles  |

Handling

Expiry Date: 12 months

Images



**ELISA**

**Image 1.** Human complement C5a PicoKine ELISA Kit standard curve