

Rabbit Anti-C2a antibody

SL10428R

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| Product Name | C2a |
| Chinese Name | 补体 C2a 链多肽抗体 |
| Alias | Complement C2a fragment; C2; C2 protein; C3/C5 convertase; CO 2; CO2; complement C2; Complement component 2; complement component C2; DKFZp779M0311; OTTHUMP00000062690; CO2_HUMAN. |
| Research Area | Cardiovascular immunology glycoprotein |
| Immunogen Species | Rabbit |
| Clonality | Polyclonal |
| React Species | Human |
| Applications | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user. |
| Theoretical molecular weight | 56kDa |
| Cellular localization | Secretory protein |
| Form | Liquid |
| Concentration immunogen | 1mg/ml KLH conjugated synthetic peptide derived from human C2a: 401-500/752 |
| Lsotype | IgG |
| Purification | affinity purified by Protein A |
| Buffer Solution | 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. |
| Storage | Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| Attention | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| PubMed | PubMed |
| Product Detail | Component C2 is a serum glycoprotein that functions as part of the classical pathway of the complement system. Activated C1 cleaves C2 into C2a and |

C2b. The serine proteinase C2a then combines with complement factor 4b to create the C3 or C5 convertase. Deficiency of C2 has been reported to associated with certain autoimmune diseases and SNPs in this gene have been associated with altered susceptibility to age-related macular degeneration. This gene localizes within the class III region of the MHC on the short arm of chromosome 6. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described in publications but their full-length sequence has not been determined.[provided by RefSeq, Mar 2009].

Function:

Component C2 which is part of the classical pathway of the complement system is cleaved by activated factor C1 into two fragments: C2b and C2a. C2a, a serine protease, then combines with complement factor 4b to generate the C3 or C5 convertase.

Subunit:

C2a interacts with *Schistosoma haematobium* TOR (via N-terminal extracellular domain). This results in inhibition of the classical and lectin pathway of complement activation, probably due to interference with binding of C2a to C4b such that C3 convertase cannot be formed. This infers resistance to complement-mediated cell lysis, allowing parasite survival and infection.

Subcellular Location:

Secreted.

DISEASE:

Defects in C2 are the cause of complement component 2 deficiency (C2D) [MIM:217000]. A deficiency of the complement classical pathway associated with the development of autoimmune disorders, mainly systemic lupus erythematosus. Skin and joint manifestations are common and renal disease is relatively rare. Patients with complement component 2 deficiency are also reported to have recurrent or invasive infections.

Similarity:

Belongs to the peptidase S1 family.
Contains 1 peptidase S1 domain.
Contains 3 Sushi (CCP/SCR) domains.
Contains 1 VWFA domain.

SWISS:

P06681

Gene ID:



717

Database links:

[Entrez Gene: 717](#) Human

[Omin: 217000](#) Human

[SwissProt: P06681](#) Human

[Unigene: 408903](#) Human