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Rabbit Anti-Complement C2 antibody

SL8613R

Product Name:	Complement C2
Chinese Name:	补体C2抗体
Alias:	Complement C2; Complement component 2; Complement factor 2; Complement C2a fragment; CO2_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	57/81kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Complement C2/Complement C2a fragment:401-500/752
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The complement component proteins: C2, C3, C4, and C5 are potent anaphylatoxins that are released during complement activation. Binding of these proteins to their respective G protein-coupled receptors induces proinflammatory events such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation, and cellular chemotaxis. C2 deficiency (C2D) is the most

common deficiency of the classical complement pathway and is mostly found in patients with autoimmune disease or susceptibility to bacterial infections. The N-terminal extracellular domain 1 of complement C2 receptor inhibitory trispanning, or CRIT, binds to C2 and specifically interacts with the C2a fragment. In doing so, CRIT blocks C2 cleavage and also prevents the classical pathway of C3 convertase formation.

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: 717Human

SwissProt: P06681Human

	Unigene: 408903Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.