10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

C1QC Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11931C

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	P02747
Other Accession	NP_758957.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31626
Calculated MW	25774
Antigen Region	93-120

Additional Information

Gene ID	714
Other Names	Complement C1q subcomponent subunit C, C1QC, C1QG
Target/Specificity	This C1QC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 93-120 amino acids from the Central region of human C1QC.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	C1QC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	C1QC {ECO:0000303|PubMed:1706597, ECO:0000312|HGNC:HGNC:1245}
Function	Core component of the complement C1 complex, a multiprotein complex that initiates the classical pathway of the complement system, a cascade of proteins that leads to phagocytosis and breakdown of pathogens and

signaling that strengthens the adaptive immune system (PubMed:12847249, PubMed:19006321, PubMed:24626930, PubMed:29449492, PubMed:3258649, PubMed:34155115, PubMed:6249812, PubMed:6776418). The classical complement pathway is initiated by the C1Q subcomplex of the C1 complex, which specifically binds IgG or IgM immunoglobulins complexed with antigens, forming antigen-antibody complexes on the surface of pathogens: C1QA, together with C1QB and C1QC, specifically recognizes and binds the Fc regions of IgG or IgM via its C1q domain (PubMed:12847249, PubMed:19006321, PubMed:24626930, PubMed:29449492, PubMed:3258649, PubMed:6776418). Immunoglobulin-binding activates the proenzyme C1R, which cleaves C1S, initiating the proteolytic cascade of the complement system (PubMed:29449492). The C1Q subcomplex is activated by a hexamer of IgG complexed with antigens, while it is activated by a pentameric IgM (PubMed:19706439, PubMed:24626930, PubMed:29449492). The C1Q subcomplex also recognizes and binds phosphatidylserine exposed on the surface of cells undergoing programmed cell death, possibly promoting activation of the complement system (PubMed:18250442).

Cellular Location

Secreted. Cell surface. Note=Specifically binds IgG or IgM immunoglobulins complexed with antigens, forming antigen-antibody complexes on the surface of pathogens.

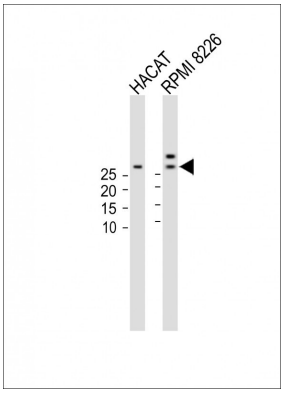
Background

This gene encodes a major constituent of the human complement subcomponent C1q. C1q associates with C1r and C1s in order to yield the first component of the serum complement system. A deficiency in C1q has been associated with lupus erythematosus and glomerulonephritis. C1q is composed of 18 polypeptide chains: six A-chains, six B-chains, and six C-chains. Each chain contains a collagen-like region located near the N-terminus, and a C-terminal globular region. The A-, B-, and C-chains are arranged in the order A-C-B on chromosome 1. This gene encodes the C-chain polypeptide of human complement subcomponent C1q. Alternatively spliced transcript variants that encode the same protein have been found for this gene.

References

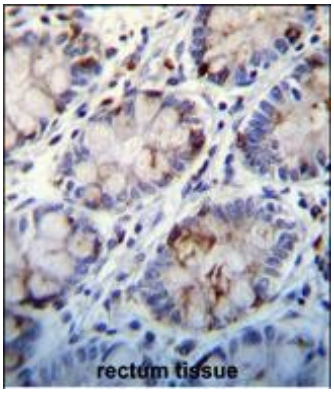
Fraser, D.A., et al. J. Immunol. 185(7):3932-3939(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Rafiq, S., et al. Clin. Exp. Immunol. 161(2):284-289(2010)
Han, S., et al. Hum. Immunol. 71(7):727-730(2010)
Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 19(5):1356-1361(2010)

Images

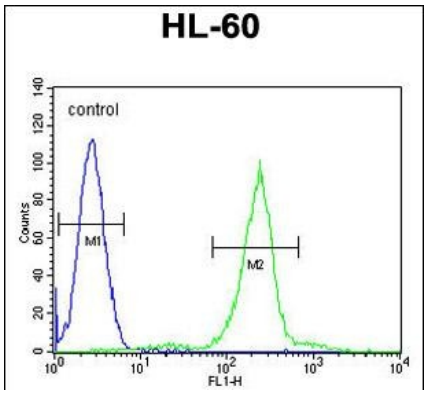


All lanes : Anti-C1QC Antibody (Center) at 1:1000 dilution Lane 1 : HACAT whole cell lysate Lane 2 : RPMI 8226 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 26kDa Blocking/Dilution buffer : 5% NFDM/TBST.

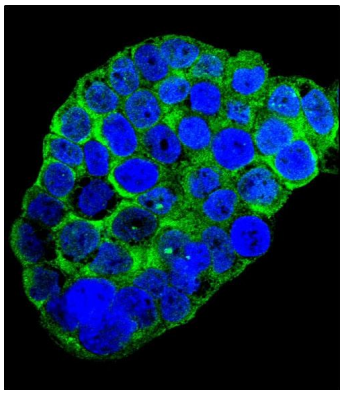
C1QC Antibody (Center) (Cat.



#AP11931c)immunohistochemistry analysis in formalin fixed and paraffin embedded human rectum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of C1QC Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



C1QC Antibody (Center) (Cat. #AP11931c) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of C1QC Antibody (Center)(Cat#AP11931c) with WiDr cell followed by Alexa Fluor? 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).