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C1QC

Purified Mouse Monoclonal Antibody
Catalog # AO2538a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P02747
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	4H9D7
Isotype	Mouse IgG1
Calculated MW	25774
Immunogen	Purified recombinant fragment of human C1QC (AA: 115-245) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	714
Other Names	C1QG; C1Q-C
Dilution	WB~~ 1/500 - 1/2000 IHC~~1:100~500 ICC~~N/A E~~ 1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	C1QC 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.

References

1.J Invest Dermatol. 2014 Apr;134(4):1152-4.2.BMC Pharmacol. 2004 Sep 7;4:19.

Images

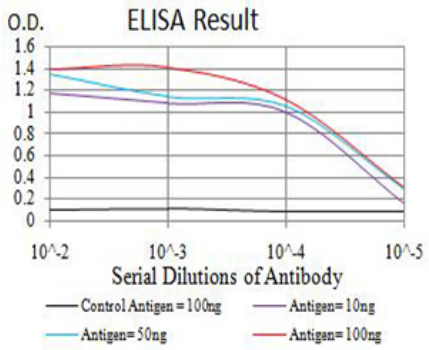


Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

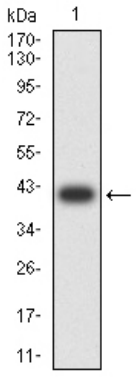
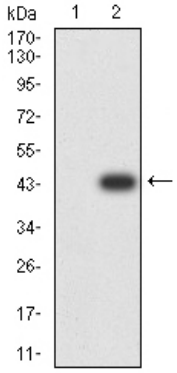


Figure 2:Western blot analysis using C1QC mAb against human C1QC (AA: 115-245) recombinant protein. (Expected MW is 40 kDa)

Figure 3:Western blot analysis using C1QC mAb against HEK293 (1) and C1QC (AA: 115-245)-hIgGFc transfected HEK293 (2) cell lysate.



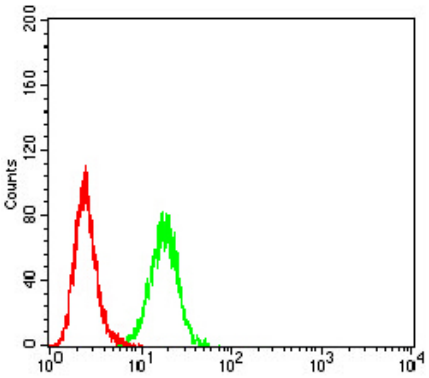


Figure 4:Flow cytometric analysis of HeLa cells using C1QC mouse mAb (green) and negative control (red).