

Mouse Monoclonal Antibody to C1QA
Purified Mouse Monoclonal Antibody
Catalog # AO2437a**Specification**

Mouse Monoclonal Antibody to C1QA - Product Information

Application	WB, IHC, FC, E
Primary Accession	P02745
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a
Calculated MW	26kDa kDa

Description

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. Deficiency of 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 A-chain polypeptide of human complement subcomponent C1q.;

Immunogen

Purified recombinant fragment of human C1QA (AA: 23-167) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

Application Note

ELISA: 1/10000; WB: 1/500 - 1/2000; IHC: 1/200 - 1/1000; FCM: 1/200 - 1/400

Mouse Monoclonal Antibody to C1QA - Additional Information

Gene ID 712

Dilution

WB~~1:1000
IHC~~1:100~500
FC~~1:10~50
E~~N/A

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

Mouse Monoclonal Antibody to C1QA is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Monoclonal Antibody to C1QA - Protein Information

Name C1QA {ECO:0000303|PubMed:1706597, ECO:0000312|HGNC:HGNC:1241}

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.

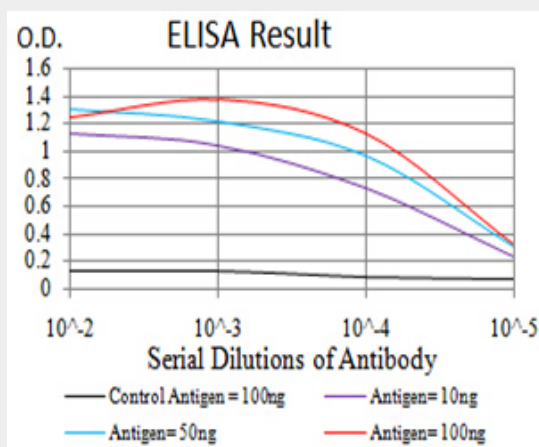
Mouse Monoclonal Antibody to C1QA - Protocols

Provided below are standard protocols that you may find useful for product applications.

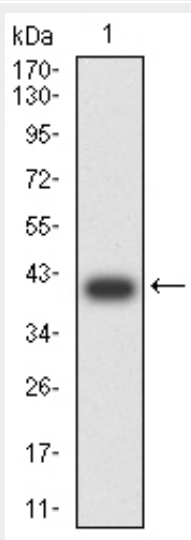
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

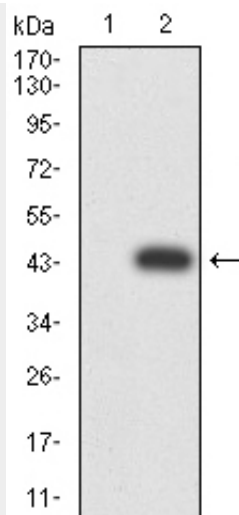
Mouse Monoclonal Antibody to C1QA - Images



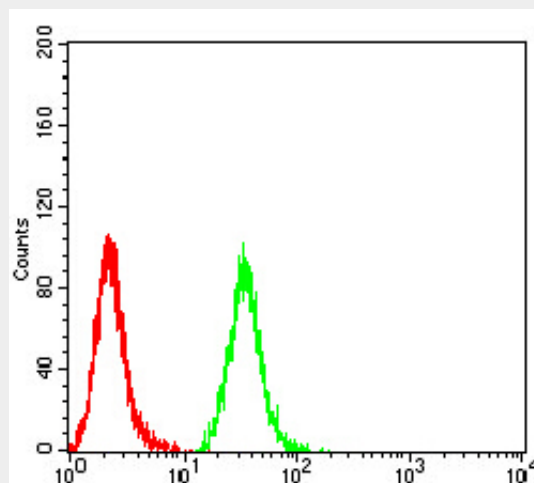
Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)



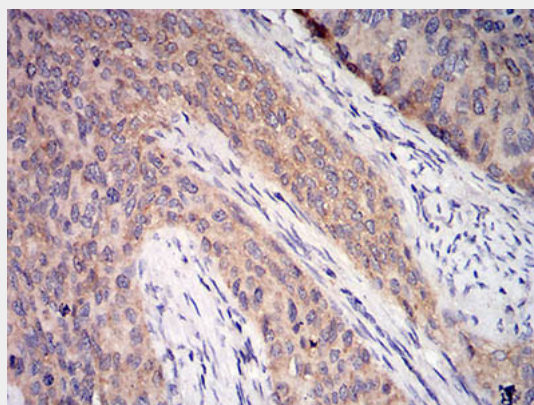
Western blot analysis using C1QA mAb against human C1QA (AA: 23-167) recombinant protein. (Expected MW is 40.6 kDa)



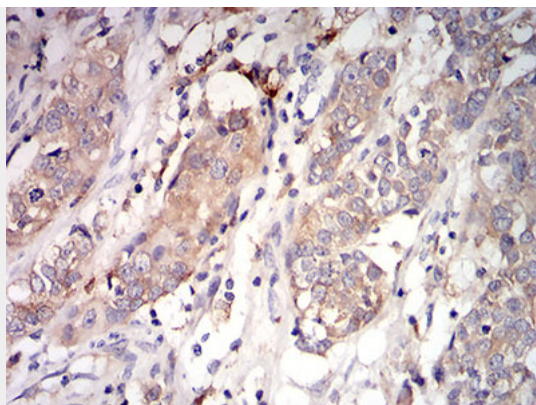
Western blot analysis using C1QA mAb against HEK293 (1) and C1QA (AA: 23-167)-hIgGFc transfected HEK293 (2) cell lysate.



Flow cytometric analysis of Hela cells using C1QA mouse mAb (green) and negative control (red).



Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using C1QA mouse mAb with DAB staining.



Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using C1QA mouse mAb with DAB staining.

Mouse Monoclonal Antibody to C1QA - References

1.Immunology. 2012 May;136(1):78-85. ; 2.Br J Cancer. 2010 Apr 13;102(8):1294-9.;