abcam

ab59140

Anti-C8 antibody [056B-373]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.1% Sodium azide Constituents: 99% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human C8G. Database link P07360
Clone number	056B-373
Purification technique	Affinity purification Protein A
Concentration	1.185 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

ELISA

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information C8A

Function

Component of the membrane attack complex (MAC), a multiprotein complex activated by the complement cascade, which inserts into a target cell membrane and forms a pore, leading to target cell membrane rupture and cell lysis (PubMed:17872444, PubMed:22832194, PubMed:26841837, PubMed:27052168, PubMed:30552328, PubMed:7440581). The MAC is initiated by proteolytic cleavage of C5 into complement C5b in response to the classical, alternative, lectin and GZMK complement pathways (PubMed:17872444, PubMed:30552328, PubMed:39914456, PubMed:39814882, PubMed:7440581). The complement pathways consist in a cascade of proteins that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system (PubMed:17872444, PubMed:30552328, PubMed:7440581). C8A, together with C8B and C8G, inserts into the target membrane, but does not form pores by itself (PubMed:17872444, PubMed:30552328). During MAC assembly, associates with C5b, C6 and C7 to form the C5b8 intermediate complex that inserts into the target membrane and traverses the bilayer increasing membrane rigidity (PubMed:30552328, PubMed:6833260).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	C8 also known as complement component C8 is a protein that plays an important role in the immune system's complement pathway. This protein has a mass of approximately 151 kDa and is expressed mainly in the liver. It circulates in the blood plasma until activated. C8 is an integral part of the membrane attack complex (MAC) which forms pores in the cell membranes of pathogens leading to their destruction. The protein occurs as a heterotrimer composed of three subunits: alpha (C8A) beta (C8B) and gamma (C8G) each contributing to its function.
Biological function summary	Complement component C8 participates in the terminal phase of the complement cascade. Within this process it integrates into the MAC a large protein complex that forms on the surface of pathogens. The formation of MAC creates transmembrane channels that lead to cell lysis. C8 is part of a larger group of proteins known as the complement system which works to clear pathogens from an organism. Its assembly and function are dependent on previous steps in the complement activation pathway particularly interaction with components like C9 for forming the complete MAC.

Pathways	The complement component C8 is actively involved in the complement activation classical pathway and the alternative pathway. These pathways are important for the immune response aiding in the opsonization of pathogens and promoting inflammation. In the context of these pathways C8 interacts with other complement proteins such as C5b which is necessary for the initiation of MAC assembly. This interaction ensures the proper functioning of the complement responses safeguarding against infections.
Associated diseases and disorders	Mutations or deficiencies in complement component C8 can lead to immunological abnormalities such as recurrent bacterial infections notably Neisseria infections. Individuals with C8 deficiency may suffer from increased susceptibility to such infections due to impaired MAC formation. Furthermore an inappropriate activation or regulation of complement pathways involving C8 can contribute to autoimmune diseases like systemic lupus erythematosus where other complement proteins like C3 also play an important role. Understanding the functioning of C8 in these contexts is essential for developing therapeutic interventions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.