abcam

Product datasheet

Anti-C4a antibody [EPR11241] ab170917

Recombinant RabMAb

3 Images

Overview

Product name	Anti-C4a antibody [EPR11241]
Description	Rabbit monoclonal [EPR11241] to C4a
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB **Unsuitable for:** ICC/IF,IHC or IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment within Human C4a aa 1050-1300. The exact sequence is proprietary. Database link: **P0C0L4**
Positive control	Human angioneoplasm lysate, HepG2 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant

Clonality	Monoclonal
Clone number	EPR11241
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab170917 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/100 - 1/500. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/5000. Predicted molecular weight: 193 kDa.

Application notes Is unsuitable for ICC/IF,IHC or IP.

Target

Function C4 plays a central role in the activation of the classical pathway of the complement system. It is processed by activated C1 which removes from the alpha chain the C4a anaphylatoxin. The remaining alpha chain fragment C4b is the major activation product and is an essential subunit of the C3 convertase (C4b2a) and the C5 convertase (C3bC4b2a) enzymes of the classical complement pathway.
Derived from proteolytic degradation of complement C4, C4a anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes.

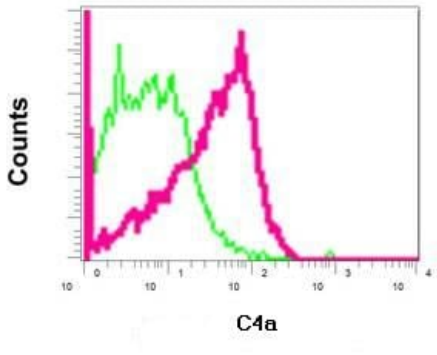
Involvement in disease Defects in C4A are the cause of complement component 4A deficiency (C4AD) [MIM:120810]. A rare defect of the complement classical pathway associated with the development of autoimmune disorders, mainly systemic lupus with or without associated glomerulonephritis.

Sequence similarities Contains 1 anaphylatoxin-like domain.
Contains 1 NTR domain.

Post-translational modifications Prior to secretion, the single-chain precursor is enzymatically cleaved to yield the non-identical chains (alpha, beta and gamma). During activation, the alpha chain is cleaved by C1 into C4a and C4b, and C4b stays linked to the beta and gamma chains. Further degradation of C4b by C1 into the inactive fragments C4c and C4d blocks the generation of C3 convertase.
N- and O-glycosylated. O-glycosylated with a core 1 or possibly core 8 glycan.

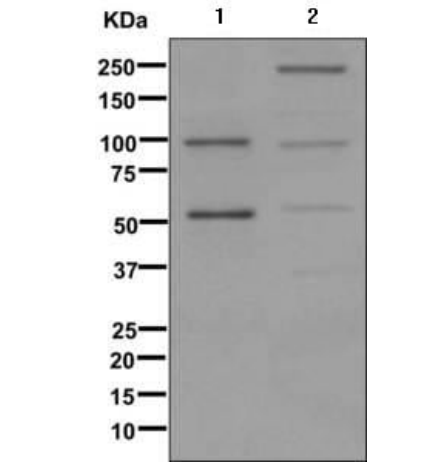
Cellular localization Secreted.

Images



Flow Cytometry (Intracellular) - Anti-C4a antibody [EPR11241] (ab170917)

Intracellular flow cytometric analysis of permeabilized HepG2 cells labeling C4a with ab170917 at 1/100 (red) or a rabbit IgG negative (green).



Western blot - Anti-C4a antibody [EPR11241] (ab170917)

All lanes : Anti-C4a antibody [EPR11241] (ab170917) at 1/1000 dilution

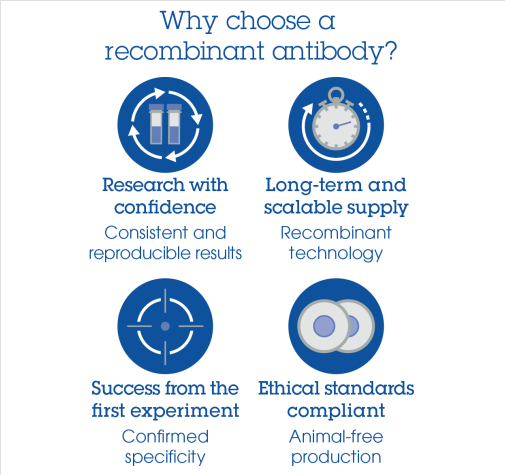
Lane 1 : Human angioneoplasm lysate
Lane 2 : HepG2 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat ant-rabbit HRP conjugated antibody at 1/2000 dilution

Developed using the ECL technique.

Predicted band size: 193 kDa



Anti-C4a antibody [EPR11241] (ab170917)

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