

Anti-C4a antibody ab66790

★★★★☆ [2 Abreviews](#) [4 References](#) [2 Images](#)

Overview

Product name	Anti-C4a antibody
Description	Rabbit polyclonal to C4a
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human C4a aa 700-800 conjugated to keyhole limpet haemocyanin. (Peptide available as ab86260)
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab66790 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
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 193 kDa (predicted molecular weight: 193 kDa).

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

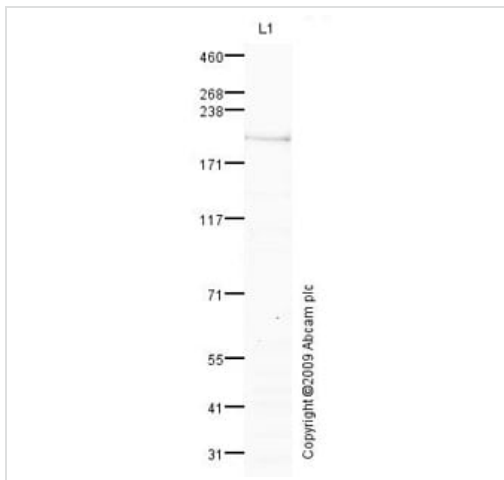
Prior to secretion, the single-chain precursor is enzymatically cleaved to yield the non-identical chains (alpha, beta and gamma). During activation, the alpha chain is cleaved by C1 into C4a and C4b, and C4b stays linked to the beta and gamma chains. Further degradation of C4b by C1 into the inactive 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



Western blot - Anti-C4a antibody (ab66790)

Anti-C4a antibody (ab66790) at 1 µg/ml + Hep G2 (Human) Whole Cell Lysate (**ab52257**) at 10 µg

Secondary

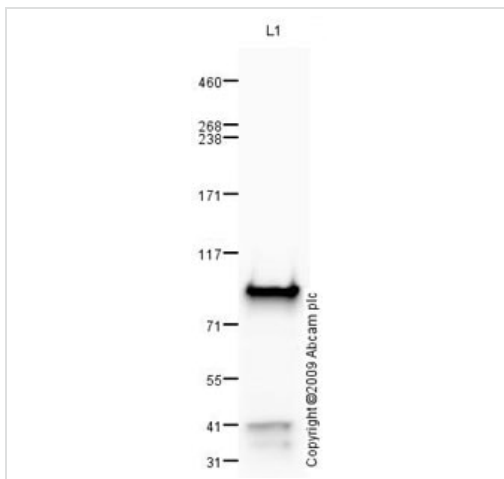
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) (**ab65484**) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 193 kDa

Observed band size: 193 kDa



Western blot - Anti-C4a antibody (ab66790)

Anti-C4a antibody (ab66790) at 1 µg/ml + Human Plasma Total Protein Lysate at 10 µg

Secondary

Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 193 kDa

Observed band size: 95 kDa

Additional bands at: 35 kDa, 41 kDa. We are unsure as to the identity of these extra bands.

Complement C4-A is proteolytically cleaved to yield three non-

identical chains and circulates in blood as a disulphide-linked trimer of an alpha, beta and gamma chain (95, 75 and 33 kDa respectively). We propose that the 95 kDa band corresponds to the alpha chain of Complement C4-A.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors