

Product datasheet

Anti-C3 / C3α antibody [EPR2987(2)(ABC)(B)] ab171080

Recombinant RabMAb

3 Images

Overview

Product name	Anti-C3 / C3α antibody [EPR2987(2)(ABC)(B)]
Description	Rabbit monoclonal [EPR2987(2)(ABC)(B)] to C3 / C3α
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: Flow Cyt, ICC/IF or IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human C3/ C3α aa 850-950. The exact sequence is proprietary. Database link: P01024
Positive control	Human plasma, fetal liver, fetal kidney, HepG2 and Human milk lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</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 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	Protein A purified

Clonality	Monoclonal
Clone number	EPR2987(2)(ABC)(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab171080 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		1/1000 - 1/10000. Predicted molecular weight: 187 kDa.
IP		1/10 - 1/100.

Application notes Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

Target

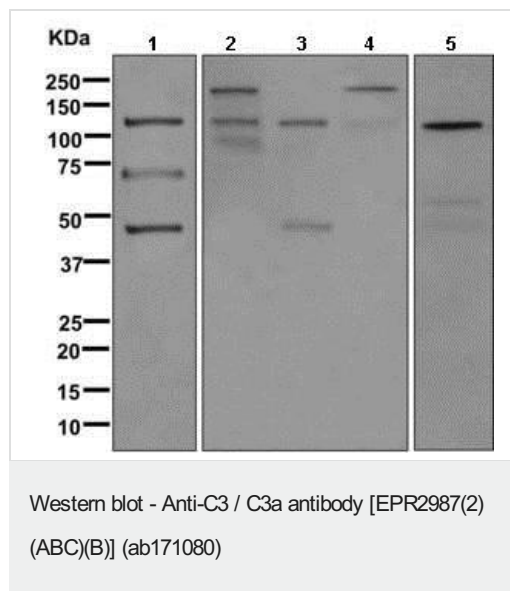
Function	<p>C3 plays a central role in the activation of the complement system. Its processing by C3 convertase is the central reaction in both classical and alternative complement pathways. After activation C3b can bind covalently, via its reactive thioester, to cell surface carbohydrates or immune aggregates.</p> <p>Derived from proteolytic degradation of complement C3, C3a anaphylatoxin is a mediator of local inflammatory process. In chronic inflammation, acts as a chemoattractant for neutrophils (By similarity). It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes.</p> <p>C3-beta-c: Acts as a chemoattractant for neutrophils in chronic inflammation.</p> <p>Acylation stimulating protein: adipogenic hormone that stimulates triglyceride (TG) synthesis and glucose transport in adipocytes, regulating fat storage and playing a role in postprandial TG clearance. Appears to stimulate TG synthesis via activation of the PLC, MAPK and AKT signaling pathways. Ligand for C5AR2. Promotes the phosphorylation, ARRB2-mediated internalization and recycling of C5AR2 (PubMed:8376604, PubMed:2909530, PubMed:9059512, PubMed:10432298, PubMed:15833747, PubMed:16333141, PubMed:19615750).</p>
Tissue specificity	Plasma. The acylation stimulating protein (ASP) is expressed in adipocytes and released into the plasma during both the fasting and postprandial periods.
Involvement in disease	<p>Complement component 3 deficiency</p> <p>Macular degeneration, age-related, 9</p> <p>Hemolytic uremic syndrome atypical 5</p> <p>Increased levels of C3 and its cleavage product ASP, are associated with obesity, diabetes and coronary heart disease. Short-term endurance training reduces baseline ASP levels and subsequently fat storage.</p>
Sequence similarities	<p>Contains 1 anaphylatoxin-like domain.</p> <p>Contains 1 NTR domain.</p>
Post-translational modifications	<p>C3b is rapidly split in two positions by factor I and a cofactor to form iC3b (inactivated C3b) and C3f which is released. Then iC3b is slowly cleaved (possibly by factor I) to form C3c (beta chain + alpha' chain fragment 1 + alpha' chain fragment 2), C3dg and C3f. Other proteases produce other fragments such as C3d or C3g. C3a is further processed by carboxypeptidases to release the C-</p>

terminal arginine residue generating the acylation stimulating protein (ASP). Levels of ASP are increased in adipocytes in the postprandial period and by insulin and dietary chylomicrons. Phosphorylated by FAM20C in the extracellular medium.

Cellular localization

Secreted.

Images



All lanes : Anti-C3 / C3a antibody [EPR2987(2)(ABC)(B)] (ab171080) at 1/1000 dilution

Lane 1 : Human plasma lysate

Lane 2 : Human fetal liver tissue lysate

Lane 3 : Human fetal kidney tissue lysate

Lane 4 : HepG2 cell lysate

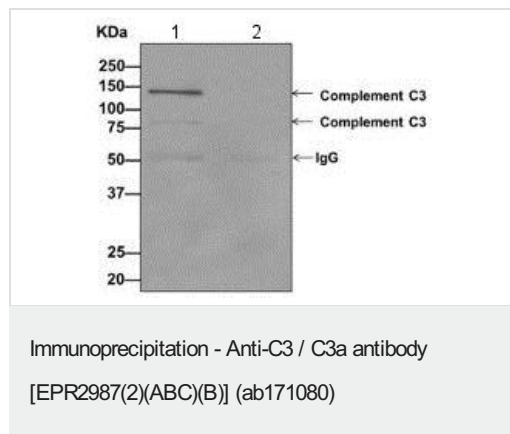
Lane 5 : Human milk lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labeled goat anti-rabbit at 1/2000 dilution

Predicted band size: 187 kDa



Western blot analysis on immunoprecipitation pellet from fetal kidney lysate (Lane 1) or 1X PBS (negative control) (Lane 2) labeling C3 / C3a using ab171080 and HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

Lane 1: Primary: ab171080, 1/1000 dilution

Sample: Fetal kidney tissue lysate

Secondary: HRP-conjugated anti-rabbit IgG

Lane 2: Primary: ab171080, 1/1000 dilution

Sample: 1 X PBS

Secondary: HRP-conjugated anti-rabbit IgG

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-C3 / C3a antibody [EPR2987(2)(ABC)(B)]
(ab171080)

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