

Product datasheet

Anti-C3 / C3a antibody [EPR2987(2)(ABC)(B)] - BSA and Azide free ab242042

Recombinant RabMAb

2 Images

Overview

Product name	Anti-C3 / C3a antibody [EPR2987(2)(ABC)(B)] - BSA and Azide free
Description	Rabbit monoclonal [EPR2987(2)(ABC)(B)] to C3 / C3a - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: Flow Cyt, ICC or IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human C3/ C3a 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>ab242042 is the carrier-free version of ab171080 This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>Ab242042 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. <i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></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> <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>

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Affinity purified
Clonality	Monoclonal
Clone number	EPR2987(2)(ABC)(B)
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab242042** in the following tested applications.

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

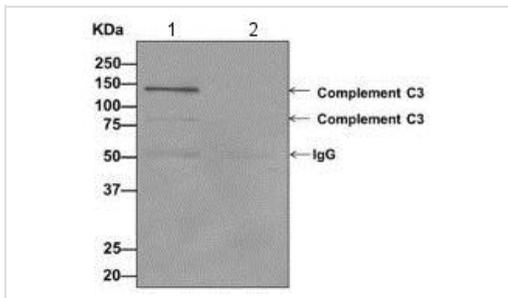
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 187 kDa.
IP		Use at an assay dependent concentration.

Application notes Is unsuitable for Flow Cyt, ICC 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	<p>Plasma. The acylation stimulating protein (ASP) is expressed in adipocytes and released into the plasma during both the fasting and postprandial periods.</p>
Involvement in disease	<p>Complement component 3 deficiency Macular degeneration, age-related, 9 Hemolytic uremic syndrome atypical 5 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. 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-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.</p>
Cellular localization	<p>Secreted.</p>

Images



Immunoprecipitation - Anti-C3 / C3a antibody
 [EPR2987(2)(ABC)(B)] - BSA and Azide free
 (ab242042)

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab171080](#)).

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

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

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