Product datasheet

Anti-C3c antibody ab204121

Overview

Product name: Anti-C3c antibody
Description: Rabbit polyclonal to C3c
Host species: Rabbit
Tested applications: Suitable for: IHC-P
Species reactivity: Reacts with: Rat
Predicted to work with: Mouse, Dog, Human, Pig

Immunogen: Synthetic peptide within Human C3c conjugated to Keyhole Limpet Haemocyanin (KLH). The exact sequence is proprietary. (Peptide derived from Complement C3c alpha’ chain fragment 1). Database link: P01024

Positive control: Rat lung tissue.

General notes: 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

Storage buffer
Preservative: 0.09% Sodium azide
Constituents: 50% Glycerol, 0.01% BSA

Purity
Protein A purified

Clonality
Polyclonal

Isotype
IgG

Applications
Our Abpromise guarantee covers the use of ab204121 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-P</td>
<td>1/100 - 1/500. (or 1/50 - 1/200 using a fluorescent secondary antibody).</td>
<td></td>
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</tbody>
</table>

Function
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.

Derived from proteolytic degradation of complement C3, C3a 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.

Tissue specificity
Plasma.

Involvement in disease
Defects in C3 are the cause of complement component 3 deficiency (C3D) [MIM:613779]. A rare defect of the complement classical pathway. Patients develop recurrent, severe, pyogenic infections because of ineffective opsonization of pathogens. Some patients may also develop autoimmune disorders, such as arthralgia and vasculitic rashes, lupus-like syndrome and membranoproliferative glomerulonephritis.

Genetic variation in C3 is associated with susceptibility to age-related macular degeneration type 9 (ARMD9) [MIM:611378]. ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world. In most patients, the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid that lie beneath the retinal pigment epithelium and within an elastin-containing structure known as Bruch membrane.

Defects in C3 are a cause of susceptibility to hemolytic uremic syndrome atypical type 5 (AHUS5) [MIM:612925]. An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Note=Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the
<table>
<thead>
<tr>
<th><strong>Sequence similarities</strong></th>
<th>Contains 1 anaphylatoxin-like domain. Contains 1 NTR domain.</th>
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</thead>
<tbody>
<tr>
<td><strong>Post-translational modifications</strong></td>
<td>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. Phosphorylation sites are present in the extracellular medium.</td>
</tr>
<tr>
<td><strong>Cellular localization</strong></td>
<td>Secreted.</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>Cleaved into the following 10 chains: 1) Complement C3 beta chain 2) Complement C3 alpha chain 3) C3a anaphylatoxin 4) Complement C3b alpha’ chain 5) Complement C3c alpha’ chain fragment 1 6) Complement C3dg fragment 7) Complement C3g fragment 8) Complement C3d fragment 9) Complement C3f fragment 10) Complement C3c alpha’ chain fragment 2</td>
</tr>
</tbody>
</table>

**Images**

Immunohistochemical analysis of formalin-fixed, paraffin embedded Rat lung tissue labeling C3c with ab204121 at 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.

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

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