abcam

ab324288

Anti-C3 antibody [RM1270]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	RM1270
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for human WB and rat IHC-Fr
Concentration	0.49 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/5000
Notes	-

Species	Mouse
Dilution info	1/5000
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/500
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Species	Mouse
Dilution info	1/4000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/500
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Rat, Human, Mouse
Dilution info	-
Notes	-

Target data

See full target information C3

Function	Precursor of non-enzymatic components of the classical, alternative, lectin and GZMK complement pathways, which consist in a cascade of proteins that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system. Complement C3b. Non-enzymatic component of C5 convertase. Generated following cleavage by C3 convertase, it covalently attaches to the surface of pathogens, where it acts as an opsonin that marks the surface of antigens for removal. Complement C3b binds covalently via its reactive thioester, to cell surface carbohydrates or immune aggregates. Together with complement C4b, it then recruits the serine protease complement C2b to form the C5 convertase, which cleaves and activate C5, the next component of the complement pathways. In the alternative complement pathway, recruits the serine protease CFB to form the C5 convertase that cleaves and activates C5. C3a anaphylatoxin.

Mediator of local inflammatory process released following cleavage by C3 convertase. Acts by binding to its receptor, C3AR1, activating G protein-coupled receptor signaling, promoting the phosphorylation, ARRB2-mediated internalization and endocytosis of C3AR1. C3a anaphylatoxin stimulates the activation of immune cells such as mast cells and basophilic leukocytes to release inflammation agents, such as cytokines, chemokines and histamine, which promote inflammation development. Also acts as potent chemoattractant for the migration of macrophages and neutrophils to the inflamed tissues, resulting in neutralization of the inflammatory triggers by multiple ways, such as phagocytosis and generation of reactive oxidants. Acylation stimulating protein. Adipogenic hormone that stimulates triglyceride synthesis and glucose transport in adipocytes, regulating fat storage and playing a role in postprandial triglyceride clearance. Appears to stimulate triglyceride synthesis via activation of the PLC, MAPK and AKT signaling pathways. Acts by binding to its receptor, C5AR2, activating G protein-coupled receptor signaling, promoting the phosphorylation, ARRB2-mediated internalization and endocytosis of C5AR2. In contrast to C3a anaphylatoxin peptide, does not show pro-inflammatory activity. C3-beta-c. Acts as a chemoattractant for neutrophils in chronic inflammation.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply

- Animal-free batch production

View our range of recombinant multiclonal antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

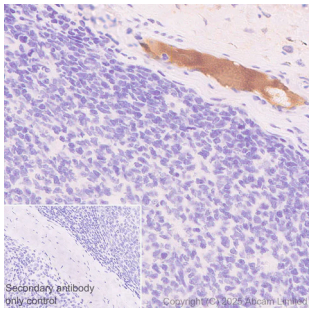
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

12 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human tonsil using rabbit Anti-C3 antibody

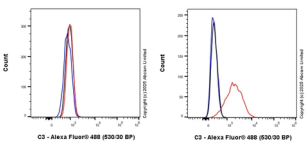
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling C3 with ab324288 at 1/100 (5.26 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on blood plasma of human tonsil.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



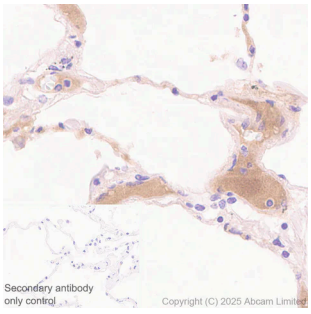
Flow Cytometry (Intracellular) - Anti-C3 antibody [RM1270] (ab324288)

C3 Flow Cytometry (Intracellular) staining using rabbit Anti-C3 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) (Right) / A-172 (human brain glioblastoma cell) (Left) cells labelling C3 with ab324288 at 1/5000 dilution (0.01ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: A-172.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung using rabbit Anti-C3 antibody

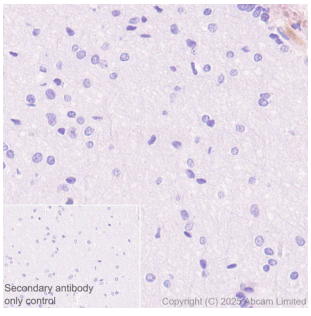
Immunohistochemical analysis of paraffin-embedded Human lung tissue labeling C3 with ab324288 at 1/100 (5.26 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on blood plasma of human lung.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum using rabbit Anti-C3 antibody

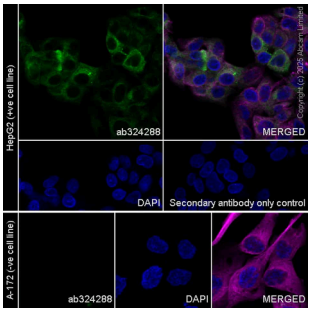
Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling C3 with ab324288 at 1/100 (5.26 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low Expression Tissue: weak staining on blood plasma of human cerebrum.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-C3 antibody [RM1270] (ab324288)

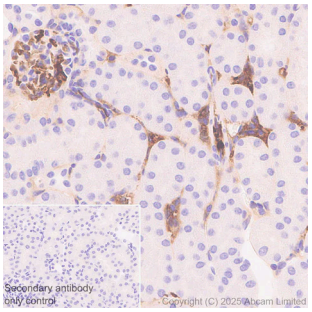
C3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-C3 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling C3 with ab324288 at 1/500 (1.052 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/ab150081 1000 2ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in HepG2 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Negative control: A-172.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/ab195889 200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor®488) preadsorbed at 1/ab150081 1000 2ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse kidney using rabbit Anti-C3 antibody

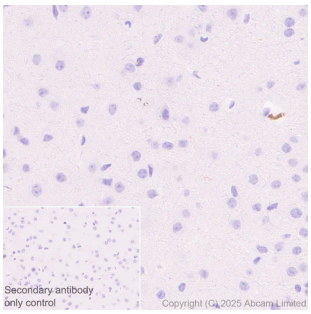
Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling C3 with ab324288 at 1/4000 (0.132 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on blood plasma of mouse kidney.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-C3 antibody

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling C3 with ab324288 at 1/4000 (0.132 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

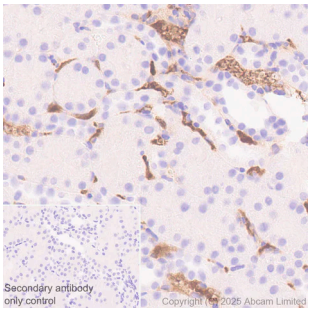
Low Expresion Tissue: weak staining on blood plasma of mouse cerebrum.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat kidney using rabbit Anti-C3 antibody

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling C3 with ab324288 at 1/500 (1.052 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

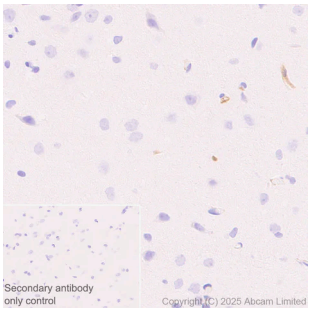
Positive staining on blood plasma of rat kidney.
The section was incubated with ab324288 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using rabbit Anti-C3 antibody

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling C3 with ab324288 at 1/500 (1.052 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

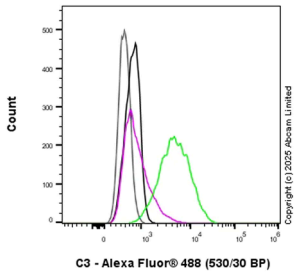
Low Expression Tissue: weak staining on blood plasma of rat cerebrum.
The section was incubated with ab324288 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

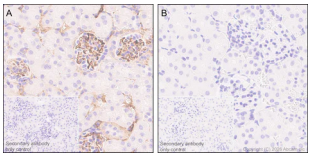


Flow Cytometry (Intracellular) - Anti-C3 antibody [RM1270] (ab324288)

C3 Flow Cytometry (Intracellular) staining using rabbit Anti-C3 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) treated with 1ug/mL LPS for 20h (Green) / Untreated J774A.1 (Magenta) cells labelling C3 with ab324288 at 1/5000 dilution (0.01ug) / Green and Magenta compared with a Rabbit monoclonal IgG (ab172730) (Black) and Grey isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-C3 antibody

Immunohistochemical analysis of paraffin-embedded (A) Kidney tissue from wild-type C57BL/6JGpt mice / (B) Kidney tissue from C3 knockout mice tissue labeling C3 with ab324288 at 1/4000 dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on (A) Kidney tissue from wild-type C57BL/6JGpt mice and no staining on (B) kidney tissue from C3 knockout mice.

The primary antibody was incubated for 30 mins at room temperature.

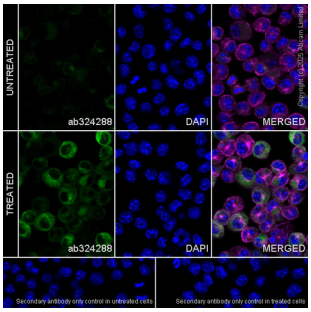
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

The tissue samples were kindly provided by GemPharmatech. C57BL/6JGpt wildtype mice and C3-KO homozygous mice (Strain ID: T012596).

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-C3 antibody [RM1270] (ab324288)

C3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-C3 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) cells labelling C3 with ab324288 at 1/500 (1.052 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/ab150081 1000 2ug/ml dilution (Green).

Confocal image showing increased cytoplasmic staining in J774A.1 cells (shown in green) treated with lipopolysaccharide (1 ug/mL) and Brefeldin A (300 ng/mL) for 24 hr. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/ab7291 1000 1ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab324288 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed antibody at 1/1000 dilution.

-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.