# abcam

#### Product datasheet

## Anti-C3 antibody [EPR19394] ab200999

ועלשעבע RabMAb

★★★★★ 9 Abreviews 47 References 画像数 10

#### 製品の概要

製品名 Anti-C3 antibody [EPR19394]

製品の詳細 Rabbit monoclonal [EPR19394] to C3

由来種 Rabbit

アプリケーション 適用あり: IHC-P. WB

種交差性 交差種: Mouse, Rat, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: Human fetal liver, fetal heart and fetal kidney lysates; Mouse brain, kidney, spleen and heart

> lysates; Rat brain, spleen, heart and kidney lysates; Human serum, plasma and milk; HepG2 whole cell lysate; Mouse and rat plasma. IHC-P: Mouse liver, cerebral cortex and cardiac muscle

tissues; Rat kidney, liver and lung tissues.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

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

#### 製品の特性

製品の状態 Liquid

保存方法 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.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

精製度 Protein A purified

ポリ/モノ モノクローナル クローン名 EPR19394

アイソタイプ

ΙgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab200999の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P	<b>★★★★☆</b> (4)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB	<b>★★★★ (2)</b>	1/2000. Detects a band of approximately 187, 115,68,43 kDa (predicted molecular weight: 187 kDa).

#### ターゲット情報

#### 機能

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.

### 組織特異性

## 関連疾患

Plasma.

Defects in C3 are the cause of complement component 3 deficiency (C3D) [MIM:120700]. 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 phenotype.

#### 配列類似性

Contains 1 anaphylatoxin-like domain.

Contains 1 NTR domain.

#### 翻訳後修飾

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 +

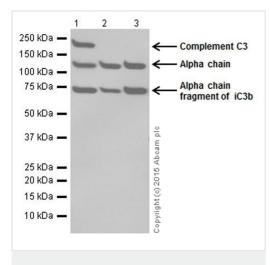
alpha' chain fragment 1 + alpha' chain fragment 2), C3dg and C3f. Other proteases produce other fragments such as C3d or C3g.

Phosphorylation sites are present in the extracelllular medium.

#### 細胞内局在

Secreted.

#### 画像



Western blot - Anti-C3 antibody [EPR19394] (ab200999)

**All lanes :** Anti-C3 antibody [EPR19394] (ab200999) at 1/2000 dilution

Lane 1: Human fetal liver lysate

Lane 2: Human fetal heart lysate

Lane 3: Human fetal kidney lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

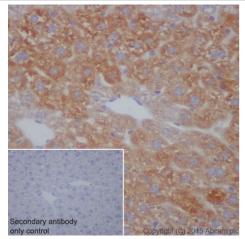
**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 187 kDa

Observed band size: 115,187,68 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

All lanes: Anti-C3 antibody [EPR19394] (ab200999) at 1/2000 dilution

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on hepatocytes of mouse liver is observed.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP)

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH

9.0 before commencing with IHC staining protocol.

Lane 1: Mouse brain lysate Lane 2: Mouse kidney lysate Lane 3: Mouse spleen lysate Lane 4: Mouse heart lysate

Counter stained with Hematoxylin.

(ab97051) at 1/500 dilution.

Lane 5: Rat brain lysate Lane 6: Rat spleen lysate Lane 7: Rat heart lysate

Lane 8: Rat kidney lysate

250 kDa 250 kDa 150 kDa 100 kDa 75 kDa 50 kDa • 37 kDa -25 kDa -25 kDa -20 kDa -20 kDa -15 kDa -15 kDa -10 kDa -10 kDa -

Western blot - Anti-C3 antibody [EPR19394] (ab200999)

Lysates/proteins at 10 µg per lane.

#### **Secondary**

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

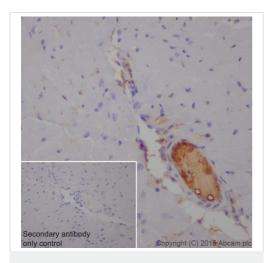
Predicted band size: 187 kDa

**Observed band size:** 115,187,43,68 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1,2,3,5 and 6: 3 minutes; Lane 4,7 and 8: 10

seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

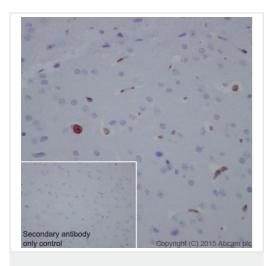
Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

The plasma in blood vessel of mouse cardiac muscle was positive staining. The staining pattern is similar to what has been observed in the literature (PMID: 23104558).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

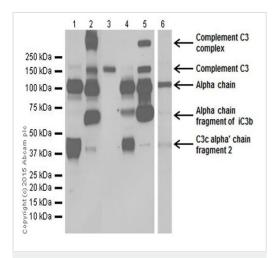
Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

The plasma in blood vessels of mouse cerebral cortex was positive staining.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-C3 antibody [EPR19394] (ab200999)

**All lanes :** Anti-C3 antibody [EPR19394] (ab200999) at 1/2000

dilution

Lane 1: Human serum

Lane 2: Human plasma

Lane 3: HepG2 (Human liver hepatocellular carcinoma cell line)

whole cell lysate

Lane 4: Mouse plasma

Lane 5: Rat plasma

Lane 6: Human milk

Lysates/proteins at 20 µg per lane.

#### **Secondary**

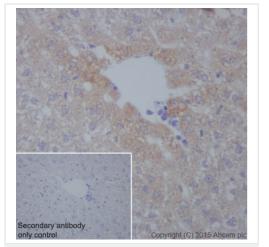
**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 187 kDa

Observed band size: 115,187,43,68 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1-5: 8 seconds; Lane 6: 3 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

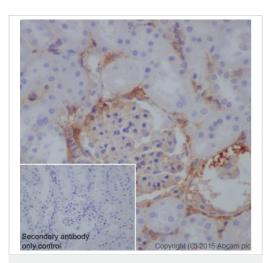
Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Cytoplasm staining on hepatocytes of rat liver is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

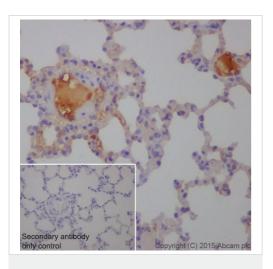
Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

The plasma in blood vessels of rat kidney was positive staining. The staining pattern is similar to what has been observed in the literature (PMID: 23104558).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-C3 antibody [EPR19394] (ab200999)

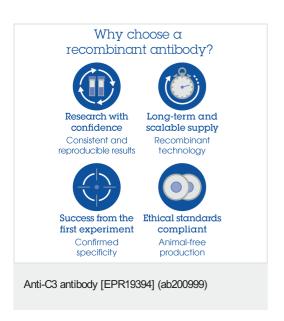
Immunohistochemical analysis of paraffin-embedded Rat lung tissue labeling C3 with ab200999 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

The plasma in blood vessels of rat lung was positive staining. The staining pattern is similar to what has been observed in the literature (PMID: 23104558).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



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