

## Product datasheet

### Anti-C3 / C3b antibody [755] ab11871

★★★★★ [5 Abreviews](#) [23 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-C3 / C3b antibody [755]
<b>Description</b>	Mouse monoclonal [755] to C3 / C3b
<b>Host species</b>	Mouse
<b>Specificity</b>	This antibody reacts with C3 and C3b. See References multiple isoforms detected by WB.
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human, Cynomolgus monkey
<b>Immunogen</b>	Full length native protein (purified) corresponding to Human C3/ C3b. Database link: <a href="#">P01024</a>
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.02% Sodium azide Constituents: PBS, 0.1% BSA
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	755
<b>Isotype</b>	IgG2b

#### Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab11871 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.
ICC/IF		Use at an assay dependent concentration. PubMed: 25254972
IHC-P	★★★★★ (4)	Use at an assay dependent concentration.

## Target

### 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 phenotype.

### Sequence similarities

Contains 1 anaphylatoxin-like domain.

Contains 1 NTR domain.

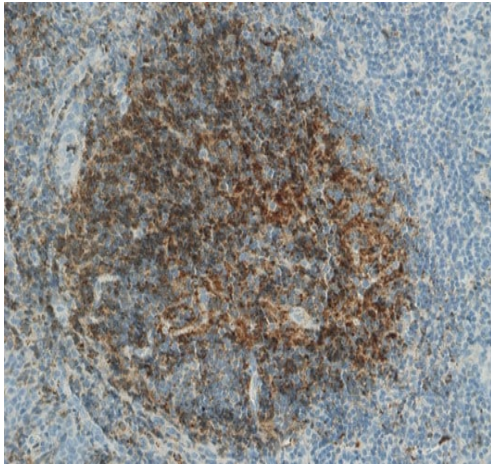
### Post-translational modifications

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.

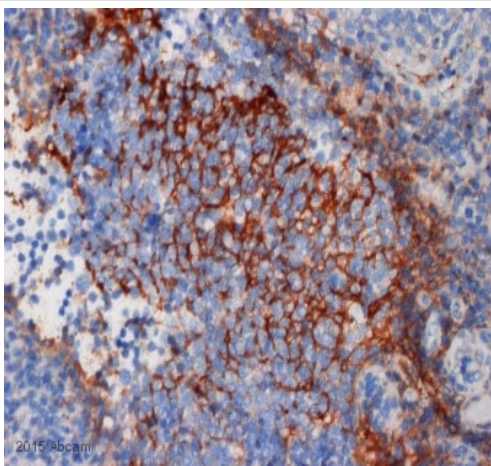
### Cellular localization

Secreted.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 / C3b antibody [755] (ab11871)

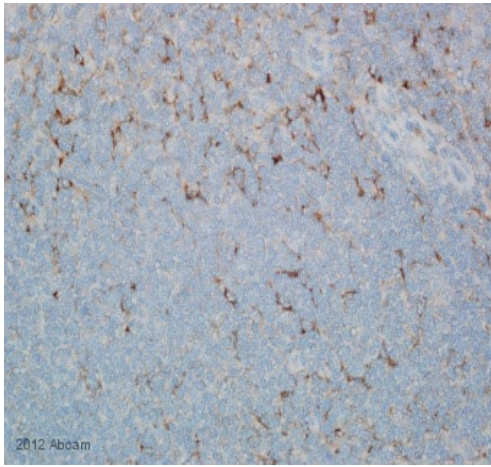
Immunohistochemistry analysis of Paraffin embedded section of human tonsil tissue sections labeling C3 / C3b with ab11871 at 1/200.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 / C3b antibody [755] (ab11871)

This image is courtesy of an anonymous Abreview

ab11871 staining C3 / C3b in human tonsil tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde; antigen retrieval was by heat mediation. Samples were incubated with primary antibody (1/100) for 32 minutes at 37°C. An undiluted biotin-conjugated goat anti-mouse IgG polyclonal was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3 / C3b antibody [755] (ab11871)

This image is courtesy of an anonymous Abreview

Immunohistochemical analysis of Cynomolgus Monkey spleen tissue, staining C3 / C3b with ab11871.

Tissue was fixed with formaldehyde and blocked with blocking solution for 1 hour at 37°C; antigen retrieval was by heat mediation in a cell conditioner. Samples were incubated with primary antibody (1/50 in diluent) for 1 hour at 37°C. A biotinylated goat anti-rabbit polyclonal IgG was used as the secondary antibody.

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