abcam

Product datasheet

Anti-C4d antibody [SP91] - C-terminal ab183311

Recombinant RabMAb

★★★★★ 1 Abreviews 2 References 4 Images

Overview

Product name	Anti-C4d antibody [SP91] - C-terminal
Description	Rabbit monoclonal [SP91] to C4d - C-terminal
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human tonsil tissue.
General notes	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**. **This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.**

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.20 Preservative: 0.1% Sodium azide Constituents: 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	SP91

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab183311 in the following tested applications.

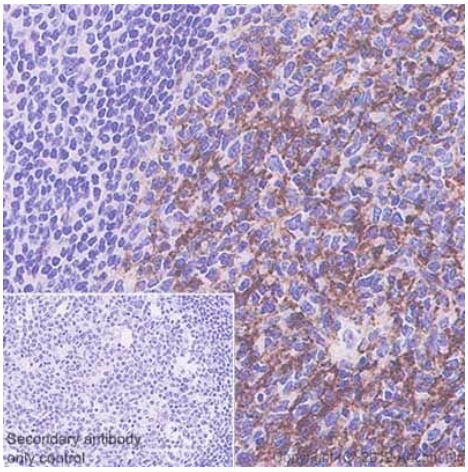
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (1)	1/100. Perform Antigen Retrieval by boiling tissue sections in 1mM EDTA, pH 8.0 for 10 min followed by cooling at room temperature for 20 min.

Target

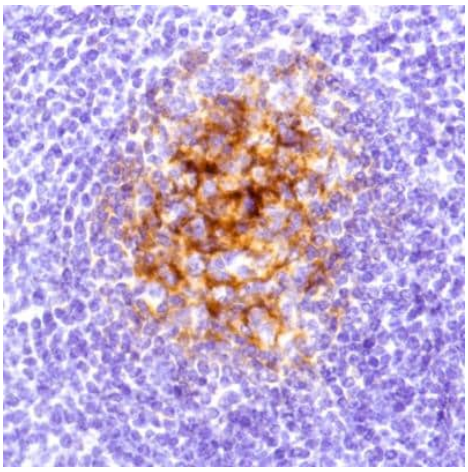
Function	C4 plays a central role in the activation of the classical pathway of the complement system. It is processed by activated C1 which removes from the alpha chain the C4a anaphylatoxin. The remaining alpha chain fragment C4b is the major activation product and is an essential subunit of the C3 convertase (C4b2a) and the C5 convertase (C3bC4b2a) enzymes of the classical complement pathway. Derived from proteolytic degradation of complement C4, C4a 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.
Involvement in disease	Defects in C4A are the cause of complement component 4A deficiency (C4AD) [MIM:120810]. A rare defect of the complement classical pathway associated with the development of autoimmune disorders, mainly systemic lupus with or without associated glomerulonephritis.
Sequence similarities	Contains 1 anaphylatoxin-like domain. Contains 1 NTR domain.
Post-translational modifications	Prior to secretion, the single-chain precursor is enzymatically cleaved to yield the non-identical chains (alpha, beta and gamma). During activation, the alpha chain is cleaved by C1 into C4a and C4b, and C4b stays linked to the beta and gamma chains. Further degradation of C4b by C1 into the inactive fragments C4c and C4d blocks the generation of C3 convertase. N- and O-glycosylated. O-glycosylated with a core 1 or possibly core 8 glycan.
Cellular localization	Secreted.

Images



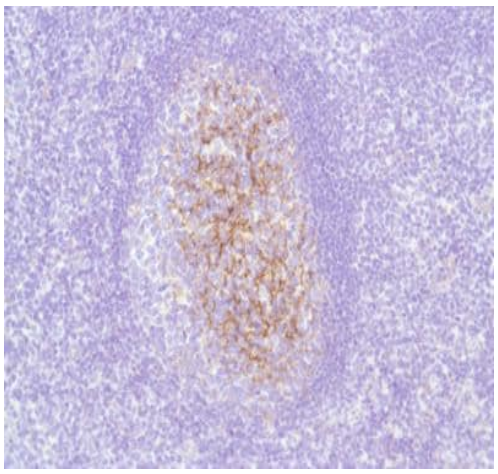
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C4d antibody [SP91] - C-terminal (ab183311)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue. The section was incubated with ab183311 at 1:100 dilution for 30 mins at room temperature. Heat-mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. A secondary antibody-only negative control was also performed. Hematoxylin was used as a counterstain. Positive staining was observed in the germinal centre of human tonsil performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C4d antibody [SP91] - C-terminal (ab183311)

Immunohistochemical analysis of Human tonsil tissue labeling C4d using ab183311 at a 1/100 dilution



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C4d antibody [SP91] - C-terminal (ab183311)

Immunohistochemical analysis of Human tonsil tissue labeling C4d using ab183311 at a 1/100 dilution.

Anti-C4d antibody [SP91] - C-terminal (ab183311)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors