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Product datasheet

Anti-C3d antibody [E28-P] ab136916

★★★★★ 3 Abreviews 7 References 1 Image

Overview

Product name	Anti-C3d antibody [E28-P]
Description	Rabbit monoclonal [E28-P] to C3d
Host species	Rabbit
Specificity	This product is specific to C3d, but also C3b and iC3b, since C3d is a product from C3b.
Tested applications	**Suitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human C3d (N terminal). Database link: **P01024**
Epitope	Peptide derived from N-terminal sequence of human C3d complement fragment
Positive control	Human skin tissue from lesion of the early pemphigus vulgaris (without blister formation)
General notes	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. 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&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 8.00 Preservative: 0.05% Sodium azide Constituents: 0.32% Tris HCl, 2% BSA
Purity	Proprietary Purification
Purification notes	This immunoglobulin is the product of one single B-cell line from the crude anti-peptide polyclonal anti-serum. This antibody is purified using a proprietary technique and offers a completely post-translationally modified and properly glycosylated antibody. This offers increased stability.

Clonality	Monoclonal
Clone number	E28-P
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab136916 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	★★★★★ (3)	1/100 - 1/200. Antigen Retrieval method: immerse the slide in Tris-EDTA buffer, pH 9.0, and incubate in water bath 40 min at 96-98°C

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.

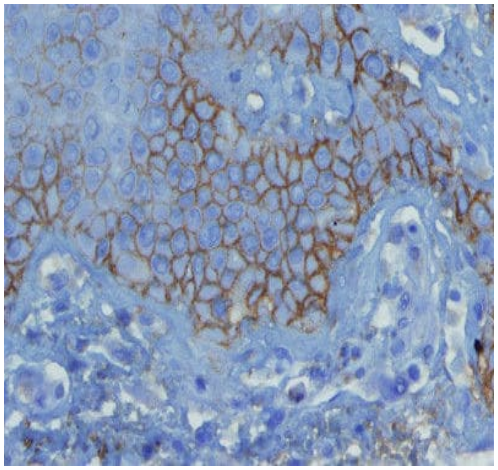
Tissue specificity Plasma.

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 extracelllular medium.
Cellular localization	Secreted.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-C3d antibody [E28-P] (ab136916)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human skin tissue (4µm) from lesion of the early pemphigus vulgaris (without blister formation) labelling C3d with ab136916 at 1/100 dilution.

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