

Product datasheet

Anti-C5 / C5a antibody ab46168

KO VALIDATED

1 References 2 Images

Overview

Product name	Anti-C5 / C5a antibody
Description	Rabbit polyclonal to C5 / C5a
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human Predicted to work with: Mouse 
Immunogen	Synthetic peptide corresponding to Human C5/ C5a aa 1450-1550 conjugated to Keyhole Limpet Haemocyanin (KLH). (Peptide available as ab46167)
Positive control	This antibody gave a positive signal in purified human Complement C5 protein.
General notes	This antibody binds specifically to the alpha / alpha' chain of C5, which forms part of C5b

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Primary antibody notes	This antibody binds specifically to the alpha / alpha' chain of C5, which forms part of C5b
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab46168** 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 a concentration of 1 µg/ml. Detects a band of approximately 115 kDa (predicted molecular weight: 188 kDa). Can be blocked with C5 / C5b peptide (ab46167) .

Target

Function

Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. Derived from proteolytic degradation of complement C5, C5 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. C5a also stimulates the locomotion of polymorphonuclear leukocytes (chemokinesis) and direct their migration toward sites of inflammation (chemotaxis).

Involvement in disease

Complement component 5 deficiency
 An association study of C5 haplotypes and genotypes in individuals with chronic hepatitis C virus infection shows that individuals homozygous for the C5_1 haplotype have a significantly higher stage of liver fibrosis than individuals carrying at least 1 other allele (PubMed:15995705).

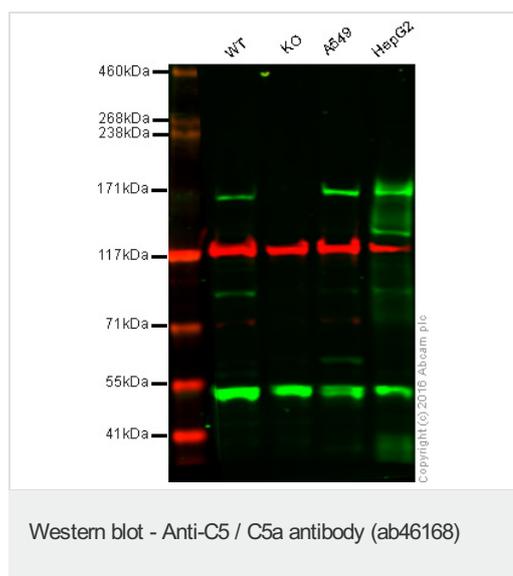
Sequence similarities

Contains 1 anaphylatoxin-like domain.
 Contains 1 NTR domain.

Cellular localization

Secreted.

Images



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: C5 knockout HAP1 whole cell lysate (20 µg)

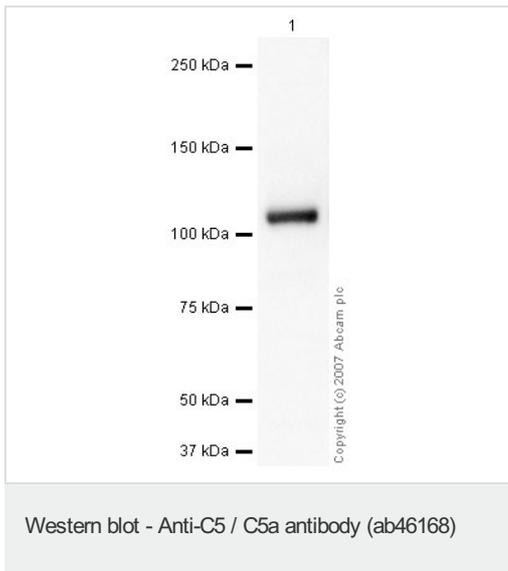
Lane 3: A549 whole cell lysate (20 µg)

Lane 4: HepG2 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab46168 observed at 170 kDa. Red - loading control, [ab18058](#), observed at 130 kDa.

ab46168 was shown to recognize C5 when C5 knockout samples were used, along with additional cross-reactive bands. Wild-type and C5 knockout samples were subjected to SDS-PAGE.

Ab46168 and [ab18058](#) (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1 µg/ml and 1/10000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10003 dilution for 1 hour at room temperature before imaging.



Anti-C5 / C5a antibody (ab46168) at 1 µg/ml + Human Complement
C5 Protein at 0.1 µg

Secondary

Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at
1/3000 dilution

Performed under reducing conditions.

Predicted band size: 188 kDa

Observed band size: 115 kDa

[why is the actual band size different from the predicted?](#)

Complement component C5 protein is comprised of an alpha and beta chain which have predicted molecular weights of 115 kDa and 75 kDa respectively. ab46168 specifically detects the C5 alpha chain.

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