abcam

Product datasheet

Anti-CD59 antibody [EPR6425(2)] ab133707

KO VALIDATED Recombinant RabMAb

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Overview

Product name	Anti-CD59 antibody [EPR6425(2)]
Description	Rabbit monoclonal [EPR6425(2)] to CD59
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HUVEC and BxPC3 cell lysates; Human placenta and tonsil tissues
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**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR6425(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133707 in the following tested applications.

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

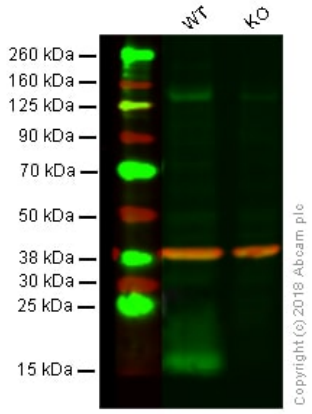
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 14 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

Target

Function	Potent inhibitor of the complement membrane attack complex (MAC) action. Acts by binding to the C8 and/or C9 complements of the assembling MAC, thereby preventing incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore. This inhibitor appears to be species-specific. Involved in signal transduction for T-cell activation complexed to a protein tyrosine kinase. The soluble form from urine retains its specific complement binding activity, but exhibits greatly reduced ability to inhibit MAC assembly on cell membranes.
Involvement in disease	Defects in CD59 are the cause of CD59 deficiency (CD59D) [MIM:612300].
Sequence similarities	Contains 1 UPAR/Ly6 domain.
Post-translational modifications	N- and O-glycosylated. The N-glycosylation mainly consists of a family of biantennary complex-type structures with and without lactosamine extensions and outer arm fucose residues. Also significant amounts of triantennary complexes (22%). Variable sialylation also present in the Asn-43 oligosaccharide. The predominant O-glycans are mono-sialylated forms of the disaccharide, Gal-beta-1,3GalNAc, and their sites of attachment are probably on Thr-76 and Thr-77. The GPI-anchor of soluble urinary CD59 has no inositol-associated phospholipid, but is composed of seven different GPI-anchor variants of one or more monosaccharide units. Major variants contain sialic acid, mannose and glucosamine Sialic acid linked to an N-acetylhexosamine-galactose arm is present in two variants. Glycated. Glycation is found in diabetic subjects, but only at minimal levels in nondiabetic subjects. Glycated CD59 lacks MAC-inhibitory function and confers to vascular complications of diabetes.
Cellular localization	Cell membrane. Secreted. Soluble form found in a number of tissues.

Images

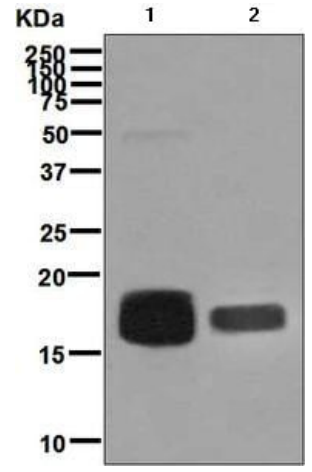


Western blot - Anti-CD59 antibody [EPR6425(2)] (ab133707)

Lane 1: Wild-type HAP1 whole cell lysate (40 µg)
Lane 2: CD59 knockout HAP1 whole cell lysate (40 µg)

Lanes 1 - 2: Merged signal (red and green). Green - ab133707 observed at 14 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab133707 was shown to specifically react with CD59 in wild-type HAP1 cells as signal was lost in CD59 knockout cells. Wild-type and CD59 knockout samples were subjected to SDS-PAGE. Ab133707 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-CD59 antibody [EPR6425(2)] (ab133707)

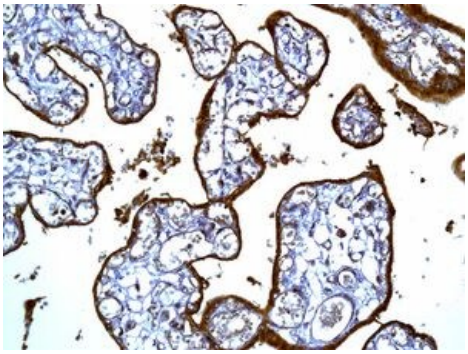
All lanes : Anti-CD59 antibody [EPR6425(2)] (ab133707) at 1/1000 dilution

Lane 1 : HUVEC cell lysate
Lane 2 : BxPC 3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

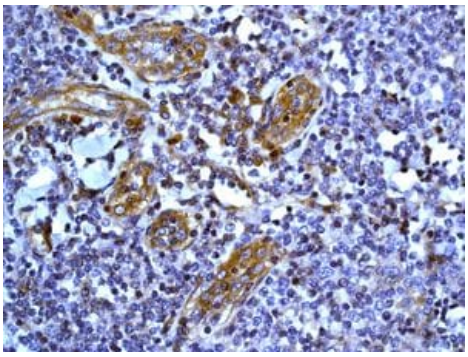
Predicted band size: 14 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD59 antibody [EPR6425(2)] (ab133707)

Immunohistochemical analysis of CD59 in paraffin embedded Human placenta tissue labelled with ab133707 at a 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD59 antibody [EPR6425(2)] (ab133707)

Immunohistochemical analysis of CD59 in paraffin embedded Human tonsil tissue labelled with ab133707 at a 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Anti-CD59 antibody [EPR6425(2)] (ab133707)

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