Antibody Product Datasheet

**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 or IP

**Species reactivity:** Reacts with: Human

**Immunogen:** Synthetic peptide corresponding to a region within the extracellular domain of Human CD59 (UniProt P13987).

**Positive control:** HUVEC and BxPC3 cell lysates; Human placenta and tonsil tissues

**General notes:** Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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 a recombinant rabbit monoclonal antibody.

**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, 0.05% BSA, 50% Tissue culture supernatant
- **Purity:** Tissue culture supernatant
- **Clonality:** Monoclonal
- **Clone number:** EPR6425(2)
- **Isotype:** IgG
**Applications**

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.

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<th>Application</th>
<th>Abviews</th>
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<td>IHC-P</td>
<td>1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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**Application notes**

Is unsuitable for Flow Cyt, ICC 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**
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.

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
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.

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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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