abcam

Product datasheet

# Anti-CD59 antibody [p282 (H19)] ab79520

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## Overview

| | |
|---|---|
| **Product name** | Anti-CD59 antibody [p282 (H19)] |
| **Description** | Mouse monoclonal [p282 (H19)] to CD59 |
| **Host species** | Mouse |
| **Tested applications** | **Suitable for:** IHC-P, Flow Cyt |
| **Species reactivity** | **Reacts with:** Human, Baboon |
| **Immunogen** | Full length protein corresponding to human CD59 |
| **Positive control** | IHC-P: Human placenta tissue. |
| **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.<br>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: 7.20<br>Preservative: 0.09% Sodium azide<br>Constituent: PBS |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | p282 (H19) |
| **Isotype** | IgG2a |
| **Light chain type** | kappa |

## Applications

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab79520 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** | | Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| **Flow Cyt** | | Use 2µg for $10^6$ cells.<br>**ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. |

## 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.

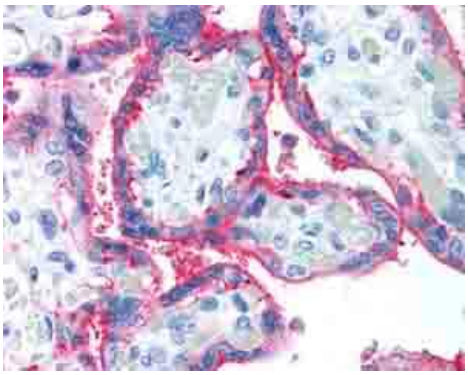
**Involvement in disease** Defects in CD59 are the cause of CD59 deficiency (CD59D) [MIM:612300].

**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.

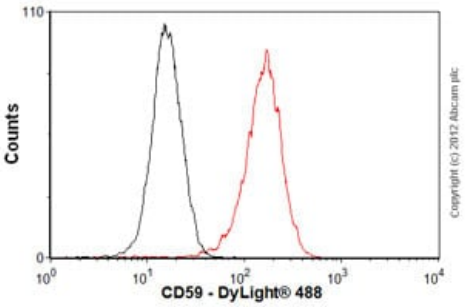
**Cellular localization** Cell membrane. Secreted. Soluble form found in a number of tissues.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD59 antibody [p282 (H19)] (ab79520)

Paraffin embedded human placenta tissue stained for CD59 using ab79520 at 10 µg/ml in immunohistochemical analysis.




Flow Cytometry - Anti-CD59 antibody [p282 (H19)] (ab79520)

Overlay histogram showing Jurkat cells stained with ab79520 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab79520, 0.5µg/1x$10^6$ cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 1µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Jurkat cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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

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