abcam

Product datasheet

Anti-CD59 antibody [MEM-43] ab9182

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Overview

Product name	Anti-CD59 antibody [MEM-43]
Description	Mouse monoclonal [MEM-43] to CD59
Host species	Mouse
Specificity	CD59 antigen (human). MEM-43 identified CD59 as the new cluster on 4th HLDA Workshop. MEM-43 reacts with well defined epitope (W40, R53).
Tested applications	**Suitable for:** IP, IHC-Fr, IHC, ICC/IF, Flow Cyt, WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Tissue, cells or virus corresponding to Human CD59. Thymocytes and T lymphocytes
Positive control	ICC/IF: Human fibrosarcoma cells. Flow Cyt: HT1080 cells. IHC: human placenta tissue
General notes	When originally tested in WB, SDS was included in the sample buffer, however, feedback from one researcher has shown that it is best to omit SDS from the sample buffer. 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). Upon delivery aliquot. Store at -20°C or -80°C. Do Not Freeze.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	Purity >95% by SDS-PAGE.
Clonality	Monoclonal

Clone number	MEM-43
Myeloma	unknown
Isotype	IgG2a
Light chain type	unknown

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab9182 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
IP		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
IHC		Use a concentration of 10 µg/ml.
ICC/IF	★★★★☆ (1)	Use at an assay dependent concentration. PubMed: 17911601
Flow Cyt	★★★★☆ (1)	Use a concentration of 0.5 - 4 µg/ml. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 14 kDa. Use under non-reducing conditions.
IHC-P		Use at an assay dependent concentration.

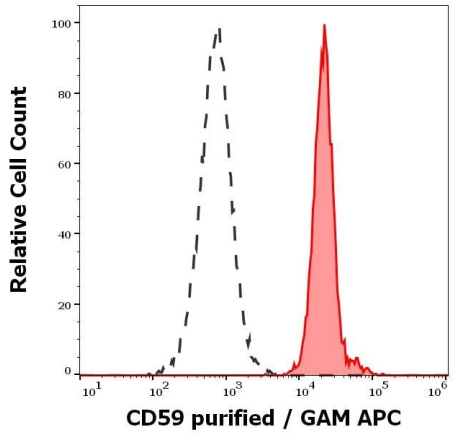
Target

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.

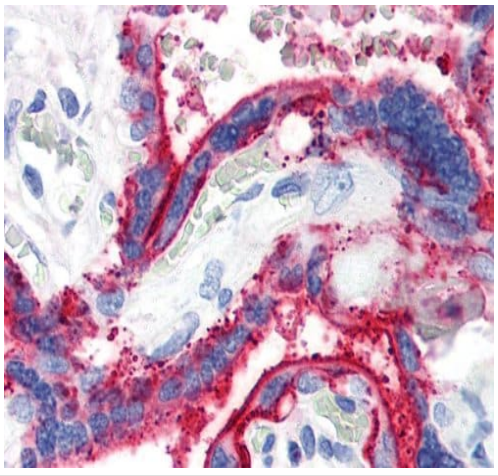
Cellular localization Cell membrane. Secreted. Soluble form found in a number of tissues.

Images



Flow Cytometry - Anti-CD59 antibody [MEM-43] (ab9182)

Flow cytometric analysis of Human Peripheral Blood cells labelling CD59 with ab9182 at 0.3 ug/ml showing separation of human neutrophil granulocytes (red-filled) from human CD59 negative blood debris (black-dashed).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD59 antibody [MEM-43] (ab9182)

Immunohistochemistry parafin embedded sections staining of huam palacenta tissue using ab9182 with a concentration of 10µg / ml

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