

AM06017RP-N

Monoclonal Antibody to CD59 - PE

Alternate names:

20 kDa homologous restriction factor, HRF-20, HRF20, MAC-IP, MAC-inhibitory protein, MACIF, MEM43 antigen, MIC11, MIN1, MIN2, MIN3, MIRL, MSK21, Membrane attack complex inhibition factor, Membrane inhibitor of reactive lysis, Protectin

Quantity:

50 µg

Concentration:

0,1 mg/ml

Background:

CD59 (also known as HRF20, protectin) is a 20 kDa glycoprotein attached to the plasma membrane by a glycosylphosphatidylinositol (GPI) anchor. It blocks MAC formation in the complement pathway by interfering with C9 membrane insertion and polymerization, but it does not affect the generation of C3 and C5 activation products. CD59 is expressed on several cell types, including leukocytes, endothelial and epithelial cells, erythrocytes, and cells of the central nervous system. CD59 belongs to the Ly6 superfamily of proteins.

Uniprot ID:

[P13987](#)

NCBI:

[NP_000602](#)

GenelD:

[966](#)

Host / Isotype:

Mouse / IgG1

Recommended Isotype Controls:

SM10R (for use in human samples)

Clone:

1F5

Immunogen:

Mouse pre-B tumour cells (RAW112)
Donor: Lewis rat spleen
Fusion Partner: S 194/5. XXO. BU-1

Format:

State: Liquid purified Ig fraction
Buffer System: PBS containing 0.02% sodium azide as preservative and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml.
Label: PE – R - Phycoerythrin

Applications:

Tissue Distribution by Flow Cytometry Analysis:

Cell Concentration: 1x10⁶ cells per test

Antibody Concentration Used: 1.0µg/10⁶ cells

Cell Source:

RBC 100%

Lymphocytes 80.2%

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody reacts to CD59.

Species: Human.

Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C.

DO NOT FREEZE!

Shelf life: one year from despatch.

General Readings:

1. Yu, J., et al. 1997. Mapping the active site of CD59. *J. Exp. Med.* 185 (4): 745-753.
2. Farkas, I., et al. 2002. CD59 blocks not only the insertion of C9 into MAC but inhibits ion channel formation by homologous C5b-8 as well as C5b-9. *J. of Physiol.* 539 (2): 537-545.
3. Zheng, H., et al. 1999. Targeting of functional antibody-CD59 fusion proteins to a cell surface. *J. Clin. Invest.* 103: 55-61.
4. Okada, N., et al. 1989. Monoclonal antibodies capable of causing hemolysis of neuraminidase-treated human erythrocytes by homologous complement. *J. of Immunol.* 143 (7): 2262-2266.
5. Yu, J., et al. 1997. The affected gene underlying the class K glycosylphosphatidylinositol (GPI) surface protein defect codes for the GPI transamidase. *Proc. Natl. Acad. Sci.* 94: 12580-12585.
6. Chen, R., et al. 2000. Impaired growth and elevated Fas receptor expression in PIGA+ stem cells in primary paroxysmal nocturnal hemoglobinuria. *J. Clin. Invest.* 106: 689-696.

Pictures:

Cell Source: Lymphocytes

