Monoclonal Anti-mouse EPCR/CD201 Antibody

ORDERING INFORMATION

Catalog Number: MAB2749

Clone: 432714

Lot Number: ZVX02

Size: 100 μg

Formulation: 0.2 μm filtered solution in PBS with 5% trehalose

Storage: -20° C

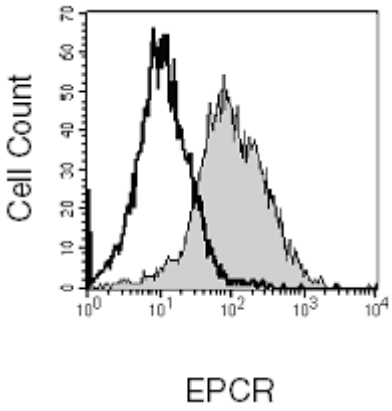
Reconstitution: sterile PBS

Specificity: mouse EPCR

Immunogen: NS0-derived rmEPCR

Ig class: rat IgG_{2A}

Recommended Application:
Flow cytometry



bEnd.3 cells were stained with anti-EPCR (R&D Systems, Cat. # MAB2749) or isotype control (R&D Systems, Cat. # MAB006, open histogram) followed by APC-conjugated anti-rat antibody (R&D Systems, Cat. # F0113).

Background

Protein C is a vitamin K-dependent serine protease that plays a major role in blood coagulation. Binding of Protein C to Endothelial Protein C Receptor (EPCR, also CD201) leads to the proteolytic activation of PAR1 (protease-activated receptor 1) on endothelial cells and subsequent up-regulation of Protein C-induced genes. EPCR is a type I transmembrane glycoprotein in the CD1/MHC family. It is expressed most strongly in the endothelial cells of arteries and veins in heart and lung. Membrane bound EPCR is released by metalloproteolytic cleavage to generate the soluble receptor. The extracellular domain of human and mouse EPCR shares approximately 61% amino acid sequence homology.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant mouse EPCR (rmEPCR; aa 17 - 214; Accession # Q64695). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 μg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody detects rmEPCR in direct ELISAs.

Application

Flow cytometry - This antibody was tested for flow cytometry using bEnd.3 cells. Dilute this antibody to 25 μg/mL and add 10 μL of the diluted solution to 1 - 2.5 x 10^5 cells in a total reaction volume not exceeding 200 μL. The binding of unlabeled monoclonal antibodies may be visualized by adding a secondary developing reagent such as goat anti-rat IgG conjugated to a fluorochrome.

Optimal dilutions should be determined by each laboratory for each application.

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