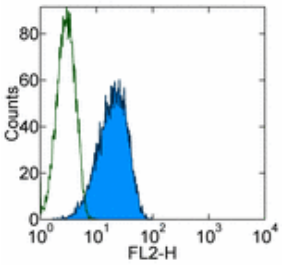
full spectrum cell analysis®
eBioscience®

Anti-Mouse CD201 (EPCR) Purified

Catalog Number: 14-2012
Also Known As:Endothelial Protein C Receptor
RUO: For Research Use Only



Staining of bEnd.3 cell line with 0.25 µg of Rat IgG2b κ Isotype Control Purified (cat. 14-4031) (open histogram) or 0.06 µg of Anti-Mouse CD201 (EPCR) Purified (filled histogram) followed by F(ab')2 Anti-Rat IgG PE (cat. 12-4822). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD201 (EPCR) Purified
REF Catalog Number: 14-2012
Clone: eBio1560 (1560)
Concentration: 0.5 mg/ml
Host/Isotype: Rat IgG2b, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBio1560 monoclonal antibody reacts with mouse Endothelial Protein C Receptor (EPCR, CD201), a 25 kDa Type 1 transmembrane protein expressed on endothelial cells. EPCR exhibits sequence and structural homology with the MHC class I/CD1 family of proteins. EPCR is a ligand for Protein C and plays an important role in augmenting Protein C activation by the thrombin-thrombomodulin complex and in regulating blood coagulation and inflammation. Deletion of EPCR results in embryonic lethality, at least partically due to placental thrombosis.

Recently, it was demonstrated that EPCR expression identified cells in the bone marrow that are capable of hematopoietic reconstitution activity comparable to hematopoietic stem cells isolated with conventional methods. The eBio1560 monoclonal antibody can be used for the detection of these hematopoietic stem cells, however the eBiomRCR-16 monoclonal antibody should only be used for the detection of CD201 on endothelial cells.

Applications Reported

This eBio1560 (1560) antibody has been reported for use in flow cytometric analysis, and immunohistochemical staining. (Please use Functional Grade purified eBio1560 (1560), cat. 16-2012, in functional assays.)

Applications Tested

This eBio1560 (1560) antibody has been tested by flow cytometric analysis of bEnd.3 cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest, particularly when analyzing expression on endothelial cells where CD201 expression is very high.

References

Balazs AB, Fabian AJ, Esmon CT, Mulligan RC. Endothelial protein C receptor (CD201) explicitly identifies hematopoietic stem cells in murine bone marrow. Blood. 2006 Mar 15;107(6):2317-21. Epub 2005 Nov 22. (1560, FC, FA, PubMed)

Fukudome K, Esmon CT. Molecular cloning and expression of murine and bovine endothelial cell protein C/activated protein C receptor (EPCR). The structural and functional conservation in human, bovine, and murine EPCR. J Biol Chem. 1995 Mar 10;270(10):5571-7.

Li W, Zheng X, Gu JM, Ferrell GL, Brady M, Esmon NL, Esmon CT. Extraembryonic expression of EPCR is essential for embryonic viability. Blood. 2005 Oct 15;106(8):2716-22.

Related Products

11-4317 Streptavidin FITC
11-4811 Anti-Rat IgG FITC

12-4317 Streptavidin PE
13-4813 Anti-Rat IgG Biotin (Polyclonal)
14-4031 Rat IgG2b K Isotype Control Purified
17-4317 Streptavidin APC

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com