

Anti-Mouse CD201 (EPCR) PerCP-eFluor® 710

Catalog Number: 46-2012 Also known as: Endothelial Protein C Receptor

RUO: For Research Use Only. Not for use in diagnostic procedures.



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.

Applications Tested

This eBio1560 (1560) antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.5 μ g per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Our testing indicates that PerCP-eFluor® 710 conjugated antibodies are stable when stained samples are exposed to freshly prepared 2% formaldehyde overnight at 4°C, but please evaluate for alternative fixation protocols.



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Click here or contact eBioscience Technical Support for more information on eFluor™ Organic Dyes including PerCPeFluor® 710.

References

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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

17-1171 Anti-Mouse CD117 (c-Kit) APC (2B8) 45-5981 Anti-Mouse Ly-6A/E (Sca-1) PerCP-Cy5.5 (D7) 46-4031 Rat IgG2b K Isotype Control PerCP-eFluor® 710 65-0865 Fixable Viability Dye eFluor® 780 88-7772 Mouse Hematopoietic Lineage eFluor® 450 Cocktail (17A2, RA3-6B2, M1/70, TER-119, RB6-8C5)