

Anti-Mouse EPCR Antibody, Clone RMEPCR1560



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Antibodies

Rat monoclonal IgG2b antibody
against mouse EPCR (CD201),
unconjugated

Catalog #60038

100 µg 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The RMEPCR1560 antibody reacts with the endothelial protein C receptor (EPCR or CD201), an ~25 kDa type I transmembrane glycoprotein expressed by endothelial cells, subsets of hematopoietic stem cells (HSCs) and dendritic cells, and several malignant cell lines. It is also found in a soluble form in plasma. EPCR exhibits homology with the MHC class 1/CD1 protein family. EPCR binds Protein C and activated Protein C, thus augmenting Protein C activation by the thrombin-thrombomodulin complex and regulating blood coagulation and inflammation. EPCR protein expression has been detected on ~1.5% of mouse bone marrow cells. Purified EPCR+ cells are highly enriched for HSC activity, as evidenced by high in vivo repopulation activity. Moreover, EPCR expression is associated with the stem cell activity of bone marrow cell populations isolated using conventional markers, indicating the usefulness of EPCR as a single marker for the identification of mouse HSCs.

Target Antigen Name:	EPCR (CD201)
Alternative Names:	Activated protein C receptor, APC receptor, CCD41, CD201, endothelial protein C receptor, PROCR, protein C receptor
Gene ID:	19124
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	RMEPCR1560
Isotype:	IgG2b, kappa
Immunogen:	Soluble form of mouse EPCR protein
Conjugate:	Unconjugated

Applications

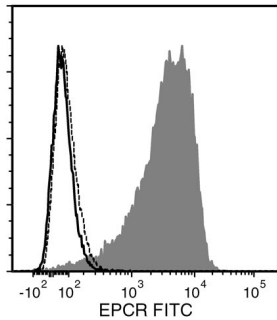
Verified:	FC
Reported:	FA, FC, IHC, WB
Special Applications:	This antibody clone has been verified for labeling hematopoietic cells grown in StemSpan™ SFEM (Catalog #09600/09650) and StemSpan™-ACF (Catalog #09805/09855).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Addition of 0.1% sodium azide (final) is recommended once the vial has been opened. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 1.0 µg per 1 x 10 ⁶ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of HEK-293 mEPCR-transfected cells (filled histogram) or non-transfected HEK-293 cells (negative control cells; dashed line histogram), labeled with Anti-Mouse EPCR Antibody, Clone RMEPCR1560, followed by goat anti-mouse IgG, FITC. Labeling of HEK-293 mEPCR-transfected cells with a rat IgG2b, kappa isotype control antibody followed by goat anti-mouse IgG, FITC is shown (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Fukudome K, et al. The endothelial cell protein C receptor. Cell surface expression and direct ligand binding by the soluble receptor. J Biol Chem 271(29): 17491-98, 1996 (FC, IP, WB)
2. Liaw PC, et al. Mechanisms by which soluble endothelial cell protein C receptor modulates protein C and activated protein C function. J Biol Chem 275(8): 5447-52, 2000
3. Esmon CT. The normal role of activated protein C in maintaining homeostasis and its relevance to critical illness. Crit Care 5(2): S7-12, 2001
4. Crawley JT, et al. Distribution of endothelial cell protein C/activated protein C receptor (EPCR) during mouse embryo development. Thromb Haemost 88(2): 259-66, 2002 (IHC)
5. Gu JM, et al. Disruption of the endothelial cell protein C receptor gene in mice causes placental thrombosis and early embryonic lethality. J Biol Chem 277(45): 43335-43, 2002 (IHC)
6. Ramalho-Santos M, et al. "Stemness": transcriptional profiling of embryonic and adult stem cells. Science 298(5593): 597-600, 2002
7. Akashi K, et al. Transcriptional accessibility for genes of multiple tissues and hematopoietic lineages is hierarchically controlled during early hematopoiesis. Blood 101(2): 383-89, 2003
8. Li W, et al. Extraembryonic expression of EPCR is essential for embryonic viability. Blood 106(8): 2716-22, 2005 (IHC)
9. Balazs AB, et al. Endothelial protein C receptor (CD201) explicitly identifies hematopoietic stem cells in murine bone marrow. Blood 107(6): 2317-21, 2006 (FA, FC)
10. Centelles MN, et al. Blocking endothelial protein C receptor (EPCR) accelerates thrombus development in vivo. Thromb Haemost 103(6): 1239-44, 2010 (FA)

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