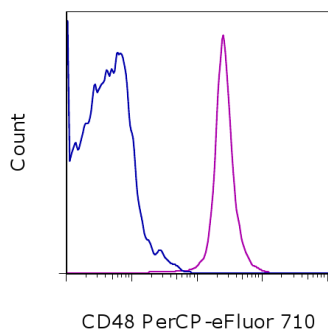


Anti-Mouse CD48 PerCP-eFluor® 710

Catalog Number: 46-0481

Also known as: BCM1, B-cell membrane protein, SLAMF2, BLAST1

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



Staining of C57Bl/6 splenocytes with 0.06 ug of Armenian Hamster IgG Isotype Control PerCP-eFluor® 710 (cat. 46-4888) (blue histogram) or 0.06 ug of Anti-Mouse CD48 PerCP-eFluor® 710 (purple histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD48 PerCP-eFluor® 710



Catalog Number: 46-0481

Clone: HM48-1

Concentration: 0.2 mg/mL

Host/Isotype: Armenian Hamster IgG



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.

Batch Code: Refer to vial

Use By: Refer to vial

Contains sodium azide

Description

The HM48-1 monoclonal antibody reacts with the mouse CD48 antigen; also known as BCM1, Blast-1 (human), and OX-45 (rat). CD48, a member of the SLAM family and Ig superfamily, is a 45 kDa GPI-linked glycoprotein expressed on the majority of hematopoietic cells. Recent publications have reported differential expression of members of the SLAM family including CD48, CD150, and CD244 among functionally distinct bone marrow hematopoietic progenitors providing a useful tool for prediction of the primitiveness of hematopoietic progenitors based on the expression of these SLAM family members. Hematopoietic stem cells (HSC) are highly purified as CD150(+)CD244(-)CD48(-) cells while non-self-renewing multipotent hematopoietic progenitors (MPP) are CD244(+)CD150(-)CD48(-) and the most restricted progenitors are CD48(+)CD244(+)CD150(-). CD48 plays a critical role in adhesion and T cell activation. In the mouse, the primary counter-receptors for CD48 are CD2 and CD244. HM48-1 is reported to modulate in vitro and in vivo CD48 functions including blocking the CD48/CD2 and CD48/CD244 interactions, inhibiting the proliferative response of mitogen-activated spleen cells, providing a costimulation signal for T cells activated in vitro through their TCR, and prolonging cardiac allograft survival in vivo.

Applications Reported

This HM48-1 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This HM48-1 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 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 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.

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Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

References

Kiel MJ, Yilmaz OH, Iwashita T, Yilmaz OH, Terhorst C, Morrison SJ. SLAM family receptors distinguish hematopoietic stem and progenitor cells and reveal endothelial niches for stem cells. *Cell*. 2005. 121:1109-21.

Chavin KD, Qin L, Lin J, Woodward J, Baliga P, Kato K, Yagita H, Bromberg JS. Anti-CD48 (murine CD2 ligand) mAbs suppress cell mediated immunity in vivo. *Int Immunol*. 1994 May;6(5):701-9.

Kato K, Tamura N, Okumura K, Yagita H. Identification of the T cell surface signal-transducing glycoprotein sgp-60 as CD48, a counter-receptor for mouse CD2. *Eur J Immunol*. 1993 Jun;23(6):1412-5.

Kato K, Koyanagi M, Okada H, Takanashi T, Wong YW, Williams AF, Okumura K, Yagita H. CD48 is a counter-receptor for mouse CD2 and is involved in T cell activation. *J Exp Med*. 1992 Nov 1;176(5):1241-9.

Related Products

11-2441 Anti-Mouse CD244.2 (2B4) FITC (eBio244F4)

12-1502 Anti-Mouse CD150 PE (mShad150)

46-4888 Armenian Hamster IgG Isotype Control PerCP-eFluor® 710 (eBio299Arm)