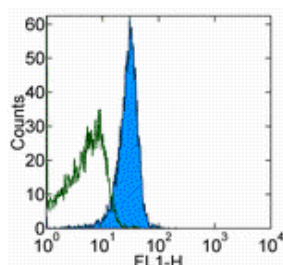


Anti-Mouse CD48 Functional Grade Purified

Catalog Number: 16-0481

Also Known As: BCM1, B-cell membrane protein, SLAMF2, BLAST1

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



Staining of BALB/c splenocytes with 0.25 ug of Armenian Hamster IgG Isotype Control Functional Grade Purified (cat. 16-4888) (open histogram) or 0.25 ug of Anti-Mouse CD48 Functional Grade Purified (filled histogram) followed by Anti-Armenian Hamster IgG FITC (cat. 11-4111). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD48 Functional Grade Purified

REF **Catalog Number:** 16-0481

Clone: HM48-1

Concentration: 1 mg/mL

Host/Isotype: Armenian Hamster IgG


Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide

 **Temperature Limitation:** Store at 2-8°C.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

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

The HM48-1 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunoblotting (WB), in vivo and in vitro functional assays. (Please use Functional Grade purified HM48-1 in functional assays.)

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 0.5 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.

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.

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and is involved in T cell activation. J Exp Med. 1992 Nov 1;176(5):1241-9.

Related Products

11-4111 Anti-Armenian Hamster IgG FITC

16-4888 Armenian Hamster IgG Isotype Control Functional Grade Purified (eBio299Arm)

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