

Purified anti-mouse CD48 Antibody

Catalog# / Size	103402 / 500 µg
Clone	HM48-1
Regulatory Status	RUO
Other Names	BCM1, SLAMF2, Blast-1
Isotype	Armenian Hamster IgG
Description	CD48 is a 45 kD GPI-anchored glycoprotein also known as BCM1, Blast-1 (human), and OX-45 (rat). It is a member of the Ig superfamily, expressed on T and B cells and monocytes/macrophages. It plays a role in adhesion and T cell recognition. The primary ligands for CD48 are CD2 and CD244.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse T lymphoma MBL-2
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested IHC-F - Verified IP - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 ⁶ cells in 100 µl volume. For immunohistochemical staining of frozen sections, a concentration range of 1.0 - 5.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	The HM48-1 antibody is useful for blocking <i>in vitro</i> and <i>in vivo</i> CD48 mediated interactions. Additional reported applications (for the relevant formats) include: immunoprecipitation ¹ , costimulation of T cell proliferation ^{1,2} , blocking of CD48-CD2 interaction ¹ , and inhibition of CTL activity and graft rejection ^{1,2} . For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. Nos. 103452-103456) with a lower endotoxin limit (Endotoxin < 0.01 EU/µg).
Application References	1. Kato K, <i>et al.</i> 1992. <i>J. Exp. Med.</i> 176:1241. (IP, Costim, Block) 2. Qin L, <i>et al.</i> 1994. <i>J. Exp. Med.</i> 179:341. (Costim, Block)
(PubMed link indicates BioLegend citation)	
Product Citations	1. Dienz O, <i>et al.</i> 2020. <i>J Immunol.</i> 204:1521. PubMed 2. Gao B, <i>et al.</i> 2018. <i>Aging Cell.</i> 3. PubMed 3. Umemoto T, <i>et al.</i> 2017. <i>EMBO J.</i> 36:2390. PubMed 4. Hsieh HY, <i>et al.</i> 2020. <i>Cancer Sci.</i> 111:2400. PubMed 5. Briot C, <i>et al.</i> 2021. <i>Immunity.</i> .: PubMed 6. Verbiest T, <i>et al.</i> 2018. <i>Leukemia.</i> 32:1435. PubMed 7. Evrard M <i>et al.</i> 2018. <i>Immunity.</i> 48(2):364-379 . PubMed 8. Lin Z, <i>et al.</i> 2021. <i>Stem Cells.</i> 39:240. PubMed
RRID	AB_313017 (BioLegend Cat. No. 103402)

Antigen Details

Structure	Ig superfamily, 45 kD
Distribution	T cells and B cells, monocytes/macrophages
Function	Adhesion, T cell recognition
Ligand/Receptor	CD2, CD244
Cell Type	B cells, Macrophages, Monocytes, T cells
Biology Area	Immunology
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	<ol style="list-style-type: none">1. Barclay AN, <i>et al.</i> 1997. The Leukocyte Antigen FactsBook Academic Press.2. Flament C, <i>et al.</i> 1996. <i>Hum. Immunol.</i> 46:82.3. Van der Merwe PA, <i>et al.</i> 1995. <i>Curr. Biol.</i> 5:74.4. Latchman Y, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:5809.
Gene ID	12506

Related Protocols

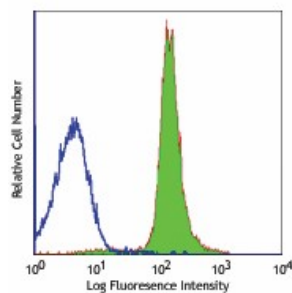
[Immunohistochemistry Protocol for Frozen Sections](#)

[Cell Surface Flow Cytometry Staining Protocol](#)

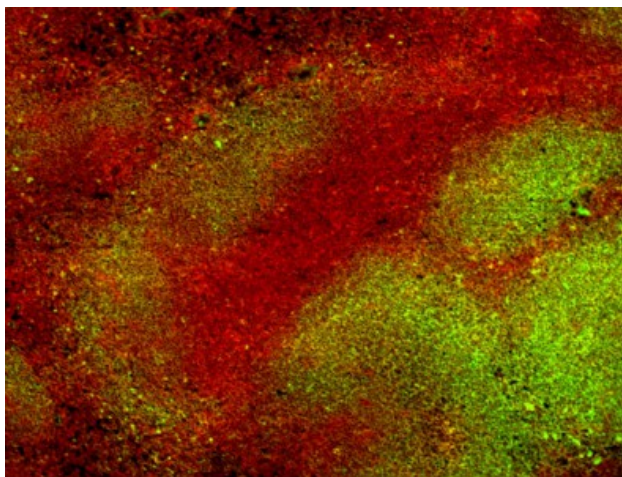
Other Formats

FITC anti-mouse CD48, PE anti-mouse CD48, Purified anti-mouse CD48, Biotin anti-mouse CD48, APC anti-mouse CD48, Alexa Fluor® 488 anti-mouse CD48, Alexa Fluor® 647 anti-mouse CD48, Pacific Blue™ anti-mouse CD48, PE/Cyanine5 anti-mouse CD48, PerCP/Cyanine5.5 anti-mouse CD48, PE/Cyanine7 anti-mouse CD48, Alexa Fluor® 700 anti-mouse CD48, Brilliant Violet 421™ anti-mouse CD48, APC/Cyanine7 anti-mouse CD48, Purified anti-mouse CD48 (Maxpar® Ready), Alexa Fluor® 594 anti-mouse CD48, Brilliant Violet 605™ anti-mouse CD48, Brilliant Violet 510™ anti-mouse CD48, Brilliant Violet 711™ anti-mouse CD48, PE/Dazzle™ 594 anti-mouse CD48, APC/Fire™ 750 anti-mouse CD48, TotalSeq™-A0429 anti-mouse CD48, Brilliant Violet 785™ anti-mouse CD48, Ultra-LEAF™ Purified anti-mouse CD48, TotalSeq™-B0429 anti-mouse CD48, TotalSeq™-C0429 anti-mouse CD48

Product Data



C57BL/6 mouse splenocytes stained with purified HM48-1, followed by anti-Armenian hamster IgG FITC.



C57BL/6 mouse frozen spleen section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% rat serum + FBS for one hour at room temperature. Then the section was stained with 5 μ g/ml of purified CD48 (clone HM48-1) and DyLight 594 Goat anti-hamster (Armenian) IgG secondary antibody (red), and 5 μ g/ml of B220 (clone RA3-6B2) Brilliant Violet 510™ (yellow) overnight at 4°C. The image was captured with a 10X objective.

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