Brilliant Violet 510™ anti-mouse CD1d (CD1.1, Ly-38) Antibody

Catalog# / Size	123537 / 50 µg
Clone	1B1
Regulatory Status	RUO
Other Names	CD1, CD1.1, Ly-38
Isotype	Rat IgG2b, κ
Description	CD1d, also known as CD1.1 and Ly-38, is a 48 kD type I membrane glycoprotein that is structurally similar to MHC class I and is non-covalently associated with β2-microglobulin. In humans, the CD1 family consists of group I (CD1a, CD1b, and CD1c), group II (CD1d), and group III (CD1e) proteins, but CD1d is the only CD1 molecule found in mice. Mouse CD1d has broad tissue distribution, and is found on leukocytes, dendritic cells, epithelial cells, and thymocytes. CD1d plays a role in presenting non-peptide glycolipid antigens to CD1d-restricted T cells, and PKCδ has been identified as a critical regulator of CD1d-mediated antigen presentation.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse CD1.1 cDNA-transfected RMA-S mouse T lymphoma
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
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 ≤ 0.125 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)

Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation, immunohistochemistical staining, and blocking function[3]. This product is for research use only and is not to be used for commercial purposes. Use of this product to produce products for sale or for diagnostic, therapeutic or drug discovery purposes is prohibited. In order to obtain a license to use this product for commercial purposes, contact the Regents of the University of California.
Application References **(PubMed link indicates BioLegend citation)**	1. Fischer K, *et al.* 2004. *P. Natl. Acad. Sci. USA* 101:10685. (Block) 2. Brozovic S, *et al.* 2004. *Nat. Med.* 10:535. 3. Brossay L, *et al.* 1997. *J. Immunol.*. 159:1216. (Block) 4. Jiang J, *et al.* 2012. *PLoS One.* 7:47487. PubMed
RRID	AB_3683151 (BioLegend Cat. No. 123537)

Antigen Details

Structure	48 kD glycoprotein, Ig superfamily
Distribution	leukocytes, dendritic cells, epithelial cells, thymocytes
Function	Antigen presentation
Ligand/Receptor	similar to MHC class I, associate with ß-microglobulin
Cell Type	Dendritic cells, Epithelial cells, Leukocytes, Thymocytes
Biology Area	Immunology, Innate Immunity
Molecular Family	Adhesion Molecules, CD Molecules
Antigen References	1. Brudin N, *et al.* 1998. *J. Immunol.* 161:3271. 2. Amano M, *et al.* 1998. *J. Immunol.* 161:1710. 3. Brossay L, *et al.* 1997. *J. Immunol.* 159:1216. 4. Dougan SK, *et al.* 2007. *Curr. Top. Microbiol. Immunol.* 314:113. 5. Brutkiewicz RR, *et al.* 2007. *Eur. J. Immunol.* 37:2390.
Gene ID	12479

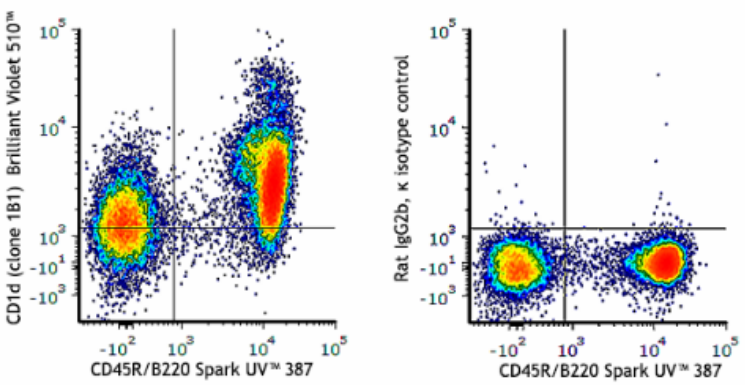
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-mouse CD1d (CD1.1, Ly-38), Biotin anti-mouse CD1d (CD1.1, Ly-38), FITC anti-mouse CD1d (CD1.1, Ly-38), PE anti-mouse CD1d (CD1.1, Ly-38), Alexa Fluor® 647 anti-mouse CD1d (CD1.1, Ly-38), PerCP/Cyanine5.5 anti-mouse CD1d (CD1.1, Ly-38), Pacific Blue™ anti-mouse CD1d (CD1.1, Ly-38), PE/Dazzle™ 594 anti-mouse CD1d (CD1.1, Ly-38), APC anti-mouse CD1d (CD1.1, Ly-38), PE/Cyanine7 anti-mouse CD1d (CD1.1, Ly-38), APC/Fire™ 750 anti-mouse CD1d (CD1.1, Ly-38), Brilliant Violet 421™ anti-mouse CD1d (CD1.1, Ly-38), TotalSeq™-A0851 anti-mouse CD1d (CD1.1, Ly-38), Ultra-LEAF™ Purified anti-mouse CD1d (CD1.1, Ly-38), TotalSeq™-C0851 anti-mouse CD1d (CD1.1, Ly-38), TotalSeq™-B0851 anti-mouse CD1d (CD1.1, Ly-38), Brilliant Violet 510™ anti-mouse CD1d (CD1.1, Ly-38) Antibody

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse/human CD45R/B220 (clone RA3-6B2) Spark UV™ 387 and anti-mouse CD1d (CD1.1, Ly-38) (clone 1B1) Brilliant Violet 510™ (left) or rat IgG2b, κ Brilliant Violet 510™ isotype control Brilliant Violet 510™ (right).

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