

Brilliant Violet 421™ anti-mouse CD1d (CD1.1, Ly-38)

Catalog # / Size: 1217635 / 50 µg

Clone: 1B1

Isotype: Rat IgG2b, κ

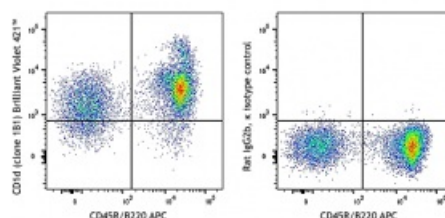
Immunogen: Mouse Cd1.1 cDNA-transfected RMA-S mouse T lymphoma

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: 0.2 mg/ml



C57BL/6 mouse splenocytes were stained with CD45R/B220 APC and CD1d (clone 1B1) Brilliant Violet 421™ (left), or Rat IgG2b, κ Brilliant Violet 421™ isotype control (right).

Applications:

Applications: Flow Cytometry

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 million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

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Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation, immunohistochemical staining, and blocking function³.

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Application
References:

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](#)
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Description:

CD1d, known as CD1.1 and Ly-38, is a 48 kD type I membrane glycoprotein with structural similarities to MHC class I and is non-covalently associated with β 2-microglobulin. In humans, CD1 family consists of group I proteins (CD1a, CD1b, and CD1c), group II (CD1d), and group III (CD1e). But CD1d is the only CD1 molecule has been found in mouse. Mouse CD1d has broad tissue distribution, and is found on leukocytes, dendritic cells, epithelial cells, and thymocytes. CD1d plays a role in non-peptide glycolipid antigen presentation to CD1d-restricted T cells. It has been shown that PKC δ is a critical regulator of CD1d-mediated antigen presentation.

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.