SONY

Product Data Sheet

Brilliant Violet 510™ anti-human CD1d

Catalog # / Size: 2351570 / 100 tests

Clone: 51.1

Isotype: Mouse IgG2b, κ

Immunogen: Human CD1d-Fc fusion

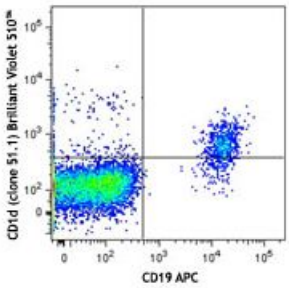
Reactivity: Human, Non-human primate

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.

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

Workshop Number: V A067

Concentration: Lot-specific



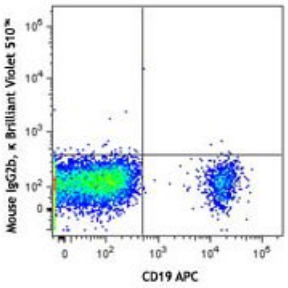
Human peripheral blood lymphocytes were stained with CD19 APC and CD1d (clone 51.1) Brilliant Violet 510™ (top) or mouse IgG2b, κBrilliant Violet 510™ isotype control (bottom).

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 ≤5 µl per million cells or 5 µl per 100 µl of whole blood. 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.



Application Notes: Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections1, Western blotting[1,2], and induction of IL-12 production by crosslinking of CD1d3.

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Application References:

1. Exley M, *et al.* 2000. *Immunology* 100:37. (IHC, WB)
2. Durante-Mangoni E, *et al.* 2004. *J. Immunol.* 173:2159. (WB)
3. Yue SC, *et al.* 2005. *P. Natl. Acad. Sci. USA* 102:11811. (Stim)

Description: CD1d is a MHC-like, type I transmembrane protein, member of the CD1 family and the immunoglobulin superfamily. On the cell surface, CD1d forms a heterodimer with β2-microglobulin. CD1d is expressed by antigen-presenting cells such as B cells, monocytes/macrophages, dendritic cells, and some non-lymphoid cells. Cortical thymocytes express CD1d but the expression is lost in mature T cells. CD1d presents lipid antigens to *i*NKT cells analogous to MHC molecule presentation of peptides to T cells.

Antigen References:

1. Koch M, *et al.* 2005. *Nat. Immunol.* 6:819.
2. Liu X, *et al.* 2010. *P. Natl. Acad. Sci. USA* 107:13010.
3. Zeissig S, *et al.* 2010. *J. Clin. Invest.* 120:2889.
4. Teige A, *et al.* 2010. *J. Immunol.* 185:345.

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