

**PE/Cy7 anti-human CD1d**

**Catalog # / Size:** 2351550 / 100 tests  
2351545 / 25 tests

**Clone:** 51.1

**Isotype:** Mouse IgG2b,  $\kappa$

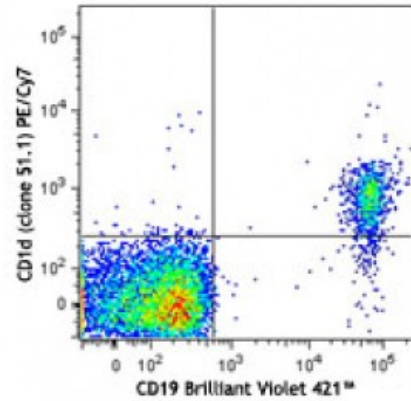
**Immunogen:** Human CD1d-Fc fusion

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with CD19 Brilliant Violet 421™ and CD1d (clone 51.1, top) PE/Cy7 or mouse IgG2b,  $\kappa$  PE/Cy7 isotype control (bottom).

**Applications:**

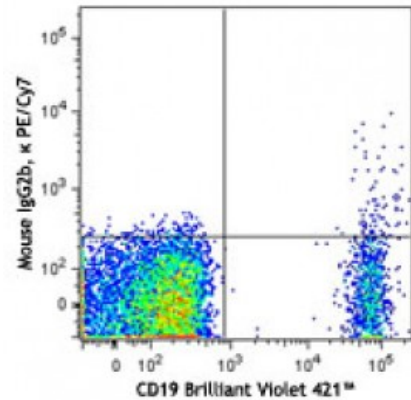
**Applications:** Flow Cytometry

**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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections<sup>1</sup>, Western blotting<sup>1,2</sup>, and induction of IL-12 production by crosslinking of CD1d<sup>3</sup>.

**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  $\beta$ 2-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 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.*