

PerCP/Cyanine5.5 anti-human CD1d Antibody

Catalog# / Size	350311 / 25 tests 350312 / 100 tests
Clone	51.1
Regulatory Status	RUO
Other Names	R3G1
Isotype	Mouse IgG2b, κ
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 β 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 α NKT cells analogous to MHC molecule presentation of peptides to T cells.

Product Details

Verified Reactivity	Human
Reported Reactivity	Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human CD1d-Fc fusion
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 PerCP/Cyanine5.5 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm. "
Application Notes	Additional reported application (for the relevant formats) include: immunohistochemical staining of frozen tissue sections ¹ , Western blotting ^{1,2} , and induction of IL-12 production by crosslinking of CD1d ³ .
Additional Product Notes	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact Technical Service if you have any questions.
Application References	1. Exley M, <i>et al.</i> 2000. <i>Immunology</i> 100:37. (IHC, WB) 2. Durante-Mangoni E, <i>et al.</i> 2004. <i>J. Immunol.</i> 173:2159. (WB) 3. Yue SC, <i>et al.</i> 2005. <i>P. Natl. Acad. Sci. USA</i> 102:11811. (Stim)
(PubMed link indicates BioLegend citation)	
RRID	AB_2562409 (BioLegend Cat. No. 350311) AB_2562410 (BioLegend Cat. No. 350312)

Antigen Details

Structure	MHC-like, type I transmembrane protein, member of the CD1 family and the immunoglobulin superfamily
Distribution	Expressed by cortical thymocytes, monocytes, macrophages, dendritic cells, B cells (highly expressed on marginal zone B cells in particular), and in some non-lymphoid cells
Function	Present lipid antigens to <i>α</i> NKT cells
Ligand/Receptor	When loaded with a lipid, is recognized by the <i>Vα14i</i> TCR from <i>α</i> NKT cells
Cell Type	B cells, Dendritic cells, Macrophages, Monocytes, Thymocytes
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, MHC Antigens, TCRs
Antigen References	<ol style="list-style-type: none">1. Koch M, <i>et al.</i> 2005. <i>Nat. Immunol.</i> 6:819.2. Liu X, <i>et al.</i> 2010. <i>P. Natl. Acad. Sci. USA</i> 107:13010.3. Zeissig S, <i>et al.</i> 2010. <i>J. Clin. Invest.</i> 120:2889.4. Teige A, <i>et al.</i> 2010. <i>J. Immunol.</i> 185:345.
Gene ID	912

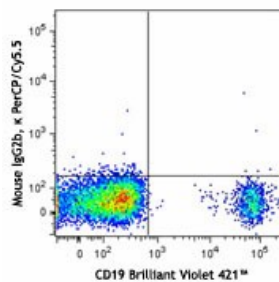
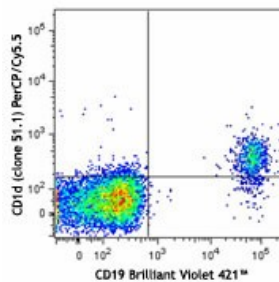
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD1d, PE anti-human CD1d, APC anti-human CD1d, PE/Cyanine7 anti-human CD1d, PerCP/Cyanine5.5 anti-human CD1d, Brilliant Violet 510™ anti-human CD1d, Brilliant Violet 421™ anti-human CD1d, TotalSeq™-A0164 anti-human CD1d, TotalSeq™-C0164 anti-human CD1d, Ultra-LEAF™ Purified anti-human CD1d, TotalSeq™-B0164 anti-human CD1d

Product Data



Human peripheral blood lymphocytes were stained CD19 Brilliant Violet 421™ and CD1d (clone 51.1, top) PerCP/Cyanine5.5 or mouse IgG2b, κ PerCP/Cyanine5.5 isotype control (bottom).

use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587