Technical Data Sheet

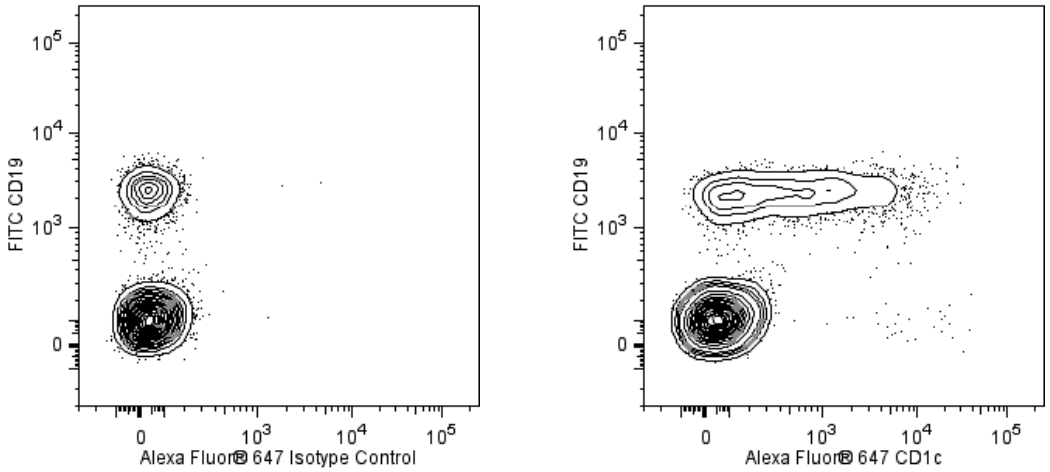
Alexa Fluor® 647 Mouse Anti-Human CD1c

Product Information

Material Number:	**565048**
Alternate Name:	CD1; R7; M241; BDCA1
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	F10/21A3
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The F10/21A3 monoclonal antibody specifically binds to CD1c. The CD1 family of transmembrane glycoproteins are structurally related to the classical major histocompatibility complex (MHC) proteins. CD1c is a type I transmembrane glycoprotein that forms heterodimers with beta-2-microglobulin. CD1c presents lipids and glycolipids of self or microbial origin to T cells. CD1c is expressed by Langerhans cells, dendritic cells, monocytes, cortical thymocytes, T cells, and some B cells.



Two-color flow cytometric analysis of CD1c expression on human peripheral blood lymphocytes. *Human whole blood was stained with FITC Mouse Anti-Human CD19 antibody (Cat. No. 555412/560994) and either Alexa Fluor® 647 Mouse IgG1, κ Isotype Control (Cat. No. 557714; Left Panel) or Alexa Fluor® 647 Mouse Anti-Human CD1c (Cat. No. 565048/565049; Right Panel). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202). Two-color flow cytometric contour plots showing the correlated expression of CD1c (or Ig Isotype control staining) versus CD19 were derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
557714	Alexa Fluor® 647 Mouse IgG1 κ Isotype Control	100 Tests	MOPC-21
565049	Alexa Fluor® 647 Mouse Anti-Human CD1c	25 Tests	F10/21A3
349202	BD FACS™ Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
555412	FITC Mouse Anti-Human CD19	100 Tests	HIB19
560994	FITC Mouse Anti-Human CD19	25 Tests	HIB19

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
6. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Delia D, Cattoretti G, Polli N, Fontanella E, Aiello A, Giardini R, Rilke F, Della Porta G. CD1c but neither CD1a nor CD1b molecules are expressed on normal, activated, and malignant human B cells: identification of a new B-cell subset. *Blood.* 1988; 72(1):241-247. (Biology)

Grant EP, Degano M, Rosat JP, Stenger S, Modlin RL, Wilson IA, Porcelli SA, Brenner MB. Molecular recognition of lipid antigens by T cell receptors. *J Exp Med.* 1999; 189(1):195-205. (Clone-specific: Blocking, Functional assay, Inhibition)

Moody DB, Ulrichs T, Mühlecker W, Young DC, Gurcha SS, Grant E, Rosat JP, Brenner MB, Costello CE, Besra GS, Porcelli SA. CD1c-mediated T-cell recognition of isoprenoid glycolipids in Mycobacterium tuberculosis infection. *Nature.* 2000; 404(6780):884-888. (Clone-specific: Blocking, Functional assay, Inhibition)

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