Technical Data Sheet

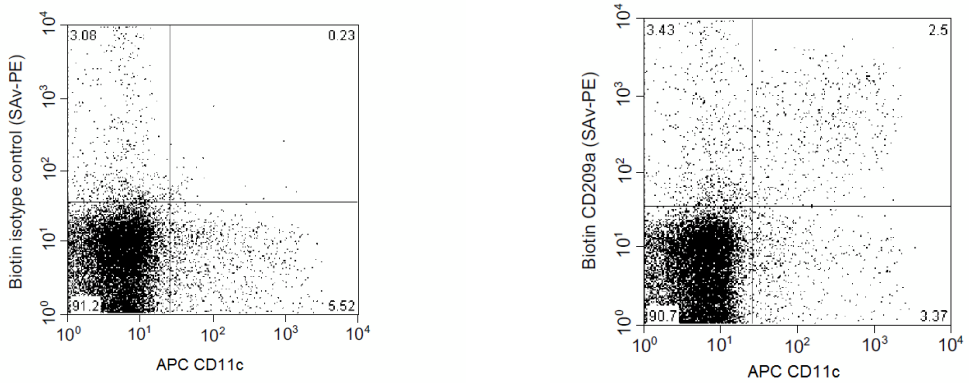
Biotin Rat anti-Mouse CD209a

Product Information

Material Number:	**558073**
Alternate Name:	CIRE, DC-SIGN
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	5H10
Isotype:	Rat IgG2a, κ
Reactivity:	QC testing: Mouse
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

In the mouse, five homologues to human CD209 (DC-SIGN) have been described. Clone 5H10 antibody binds with CD209a, or CIRE, which is the most closely related homologue to DC-SIGN. CD209a is a 238-amino-acid type-II transmembrane C-type lectin, with an extracellular carbohydrate recognition domain, that is almost exclusively expressed on subpopulations of splenic CD8-negative dendritic cells (DC), splenic plasmacytoid pre-DC, and resident peritoneal DC. Like human DC-SIGN, the mouse homologue binds to HIV and human ICAM-3 in vitro.



Two-color analysis of CD209a expression on peritoneal DC. *After preincubation with Mouse BD Fc Block™ purified mAb 2.4G2 (Cat. no. 553141/553142), BALB/c resident peritoneal cells were stained with APC anti-mouse CD11c mAb HL3 (Cat. no. 550261) and either Biotin Rat IgG2a, κ isotype control mAb R35-95 (Cat. no. 553928, left panel) or Biotin mAb 5H10/CIRE (right panel), followed by Streptavidin-Phycoerythrin (SAv-PE). Dead cells were excluded by staining with propidium iodide (Cat. no. 556463). Almost all of the CD209a-expressing cells are CD11c-positive DC. Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.*

Preparation and Storage

Store undiluted at 4°C.

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2
553928	Biotin Rat IgG2a κ Isotype Control	0.25 mg	R35-95
554061	PE Streptavidin	0.5 mg	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. An isotype control should be used at the same concentration as the antibody of interest.

References

Baribaud F, Pohlmann S, Sparwasser T, et al. Functional and antigenic characterization of human, rhesus macaque pigtailed macaque, and murine DC-SIGN. *J Virol.* 2001; 75(21):10281-10289. (Biology)

Caminschi I, Lucas KM, O'Keeffe MA, Hochrein H, Laâbi Y, Brodnicki TC, Lew AM, Shortman K, Wright MD. Molecular cloning of a C-type lectin superfamily protein differentially expressed by CD8alpha(-) splenic dendritic cells. *Mol Immunol.* 2001; 38(5):365-373. (Biology)

O'Keeffe M, Hochrein H, Vremec D, et al. Mouse plasmacytoid cells: long-lived cells, heterogeneous in surface phenotype and function, that differentiate into CD8(+) dendritic cells only after microbial stimulus. *J Exp Med.* 2002; 196(10):1307-1319. (Clone-specific: Flow cytometry)

Parent SA, Zhang T, Chrebet G, et al. Molecular characterization of the murine SIGNR1 gene encoding a C-type lectin homologous to human DC-SIGN and DC-SIGNR. *Gene.* 2002; 293(1):33. (Biology)

Park CG, Takahara K, Umemoto E, et al. Five mouse homologues of the human dendritic cell C-type lectin, DC-SIGN. *Int Immunol.* 2001; 13(10):1283-1290. (Biology)

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