

Technical Data Sheet

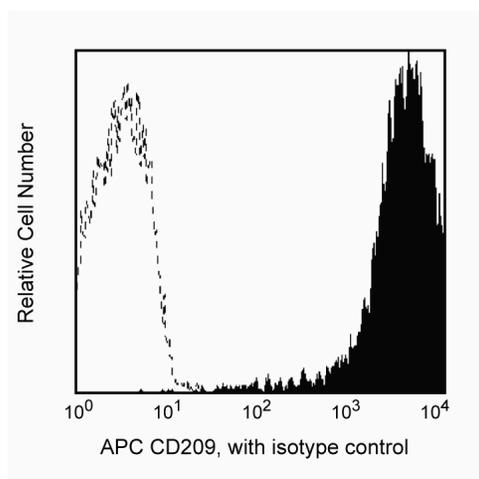
APC Mouse Anti-Human CD209

Product Information

Material Number:	551545
Alternate Name:	DC-SIGN
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	DCN46
Immunogen:	Human Monocyte Derived DC Cells
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

The DCN46 antibody specifically binds to dendritic cell-specific ICAM-3 grabbing nonintegrin (DC-SIGN or CD209), a type-II membrane protein of approximately 44 kDa with a mannose-binding C-type lectin domain. It is highly expressed on dendritic cells in mucosal tissues. Its sequence is identical to the HIV-1 envelope gp120-binding C-type lectin, and reports suggest that DC-SIGN binds to HIV-1 gp120 and effectively transmits infectious HIV-1 to resting T lymphocytes expressing CD4 and chemokine receptors. The C-type lectin domain of DC-SIGN is also capable of binding other pathogenic viruses, bacteria, and parasites. Reports also suggest that DC-SIGN enables the highly efficient migration of dendritic cells from blood into the tissues. It can interact with ICAM-2, which has a similar sequence as ICAM-3, and is abundantly expressed on vascular and lymphoid endothelium. Thus, DC-SIGN mediates dendritic cells rolling and transendothelial migration, and its interaction with ICAM-2 is essential to specific migratory functions of dendritic cells.



Flow cytometric analysis of CD209 expression on peripheral blood monocyte-derived dendritic cells.
Adherent peripheral blood mononuclear cells were cultured for 7 days with the recombinant human cytokines, GM-CSF (Cat. No. 550068), TNF (Cat. No. 554618), and IL-4 (Cat. No. 554605). The cultured dendritic cells were harvested and stained with either APC Mouse IgG2 b, κ Isotype Control (Cat. No. 555745, open histogram) or APC Mouse Anti-Human CD209 (Cat. No. 551545; filled histogram).

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 APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

Flow cytometry

Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555745	APC Mouse IgG2b κ Isotype Control	100 Tests	27-35
550068	Recombinant Human GM-CSF	10 μ g	(none)
554618	Recombinant Human TNF	10 μ g	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
554605	Recombinant Human IL-4	5 μ g	(none)

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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. 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.
6. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
7. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

- Appelmek BJ, van Die I, van Vliet SJ, et al. Carbohydrate profiling identifies new pathogens that interact with dendritic cell-specific ICAM-3-grabbing nonintegrin on dendritic cells. *J Immunol.* 2003; 170(4):1635-1639. (Biology)
- 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)
- Gruber A, Chalmers AS, Popov S, Ruprecht RM. Functional aspects of binding of monoclonal antibody DCN46 to DC-SIGN on dendritic cells. *Immunol Lett.* 2002; 84(2):103-108. (Clone-specific)
- Sallusto F, Cella M, Danielli C, Lanzavecchia A. Dendritic cells use macropinocytosis and the mannose receptor to concentrate macromolecules in the major histocompatibility complex class II compartment: downregulation by cytokines and bacterial products. *J Exp Med.* 1995; 182(2):389-400. (Immunogen)
- Steinman RM, Granelli-Piperno A, Pope M, et al. The interaction of immunodeficiency viruses with dendritic cells. *Curr Top Microbiol Immunol.* 2003; 276:1-30. (Biology)
- Steinman RM. DC-SIGN: a guide to some mysteries to dendritic cells. *Cell.* 2000; 100(5):491-494. (Biology)

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