Technical Data Sheet

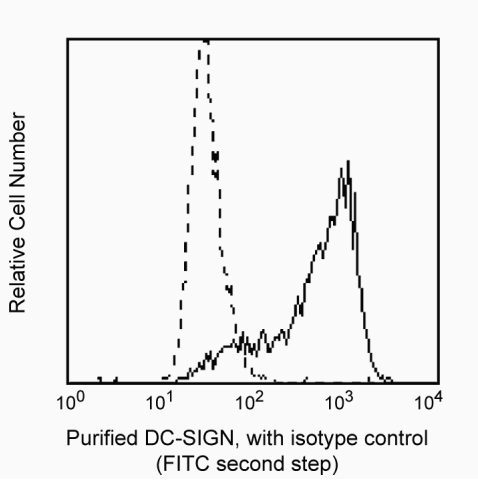
Purified Mouse Anti-Human CD209

Product Information

Material Number:	**551186**
Alternate Name:	DC-SIGN
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	DCN46
Immunogen:	Human Monocyte Derived DC Cells
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤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 cultured human monocyte-derived dendritic cells. *Dendritic cells were stained with either Purified Mouse Anti-Human CD209 (Cat. No. 551186; solid line histogram) or Purified Mouse IgG2b κ Isotype Control (Cat. No. 555740; dashed line histogram), followed by FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of viable cells.*

Preparation and Storage

Store undiluted at 4°C.

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

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555740	Purified Mouse IgG2b κ Isotype Control	0.1 mg	27-35
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal
554657	Stain Buffer (BSA)	500 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Geijtenbeek TBH, Kwon DS, Torensma R, et al. DC-SIGN, a dendritic cell-specific HIV-1 -binding protein that enhances trans-infection of T cells. *Cell.* 2000; 100(5):587-597. (Biology)

Geijtenbeek TBH, Torensma R, van Vliet SJ, et al. Identification of DC-SIGN, a novel dendritic cell-specific ICAM-3 receptor that supports primary immune responses. *Cell.* 2000; 100(5):575-585. (Biology)

Sallusto F, Cella M, Danieli 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. DC-SIGN: a guide to some mysteries to dendritic cells. *Cell.* 2000; 100(5):491-494. (Biology)