

## Product datasheet for **AM26205PU-N**

### DC SIGN (CD209) Mouse Monoclonal Antibody [Clone ID: DCN47.5]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	DCN47.5
Applications:	FC, FN
Recommended Dilution:	Flow cytometry: The typical starting working dilution is 1:50. Functional assays: Inhibits binding of DC-SIGN to ICAM-2 on endothelial cells.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody reacts with the C-type lectin, DC-SIGN (CD209), exclusively expressed on human dendritic cells (DC).
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD209 molecule
Database Link:	<a href="#">Entrez Gene 30835 Human</a> <a href="#">Q9NNX6</a>



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**Background:**

DC are specialized antigen presenting cells and bridge the innate and the adaptive immune system. They provide high levels of costimulation necessary for activation of both naïve and antigen-experienced T-cells. Immature DC are capable to migrate to inflammatory sites, capture antigen and process it internally to form MHC-peptide complexes. Following antigen uptake, DC undergo maturation and migrate to lymphoid organs where they can present MHC-peptide complexes to resting T-cells and drive T-cell proliferation. During differentiation and maturation of DC, several phenotypic surface markers are expressed: CD1a, CD4, CD11, CD40, CD86, and HLA-DR. Immature DC predominantly express CCR5 which enables DC to migrate to inflammatory sites, whereas mature DC express high levels of CXCR4, a receptor that facilitates migration to lymphoid organs.

DC also express DC-specific, ICAM-3 grabbing, nonintegrin (DC-SIGN), a 44 kDa C-type lectin that binds to the HIV-1 envelope glycoprotein gp120, ICAM-3 on T-cells and ICAM-2 on endothelial cells. HIV virions are able to infect cells expressing CD4 and the chemokine co-receptors CCR5 or CXCR4 and can attach to DC-SIGN to extend virion lifespan. Therefore, DC are candidates for HIV-1 infection. DC-SIGN-ICAM-3 binding is integrin-independent but calcium-dependent and antibodies reactive against DC-SIGN can be used to study DC-SIGN-ICAM3 binding.

**Synonyms:**

DCSIGN1, DCSIGN, DC-SIGN1, CLEC4L, Dendritic Cell Marker