

10-3552: Monoclonal Antibody to human DC-SIGN(Discontinued)

Clonality :	Monoclonal
Clone Name :	DCN47.5
Application :	Functional Assay,FACS
Reactivity :	Human
Gene :	CD209
Gene ID :	30835
Uniprot ID :	Q9NNX6
Alternative Name :	CLEC4L, C-type lectin domain family 4 member L, Dendritic cell-specific ICAM-3-grabbing non-integrin 1
Isotype :	Mouse IgG1
Immunogen Information :	Human monocyte-derived dendritic cells

Description

The monoclonal antibody DCN47.5 reacts with the C-type lectin, DC-SIGN (CD209), exclusively expressed on human dendritic cells (DC). 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. The monoclonal antibody DCN47.5 specifically reacts with the C-type lectin DC-SIGN (CD209) expressed on human dendritic cells and inhibits binding of DC-SIGN to ICAM-2 on endothelial cells.

Product Info

Amount :	SIGN(Discontinued) / 500 µg
Content :	0.5 mg 0.2 µm filtered protein G purified antibody solution in PBS containing 0.1% bovine serum albumin.
Storage condition :	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.

Application Note

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.