Product name:	CD209 Rabbit Polyclonal Antibody
Cat number:	ABN08279
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from CD209 antigen at AA range: 261-310
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ELISA 1:5000-1:20000
Molecular Weight:	45kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes a transmembrane receptor and is often referred to as DC-SIGN because of its expression on the surface of dendritic cells and macrophages. The encoded protein is involved in the innate immune system and recognizes numerous evolutionarily divergent pathogens ranging from parasites to viruses with a large impact on public health. The protein is organized into three distinct domains: an N-terminal transmembrane domain, a tandem-repeat neck domain and C-type lectin carbohydrate recognition domain. The extracellular region consisting of the C-type lectin and neck domains has a dual function as a pathogen recognition receptor and a cell adhesion receptor by binding carbohydrate ligands on the surface of microbes and endogenous cells. The neck region is important for homo-oligomerization which allows the receptor to bind multivalent ligands with high avidity. Variations in the number of 23 amino aalternative products:Additional isoforms seem to exist. Several splicing events may be used independently in a modular way. Deletion of the transmembrane domain encoding exon through alternative splicing produces soluble isoforms,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,domain:The tandem repeat domain, also called neck domain, mediates oligermerization.,function:On DCs it is a high affinity receptor for ICAM2 and ICAM3 by binding to mannose-like carbohydrates. May act as a DC rolling receptor that mediates transendothelial migration of DC presursors from blood to tissues by binding endothelial ICAM2. Seems to regulate DC-induced T-cell proliferation by binding to ICAM3 on T-cells in the immunological synapse formed between DC and T-cells.,function:Pathogen-recognition receptor expressed on the surface of immature dendritic cells (DCs) and involved in initiation of primary immune response. Thought to mediate the endocytosis of pathogens which are subsequently degraded in lysosomal compartments. The receptor returns to the cell membrane surface and the pathogen-derived antigens are presented to resting T-cells via MHC class II proteins to initiate the adaptive immune response. Probably recognizes in a calcium-dependent manner high mannose N-linked oligosaccharides in a variety of pathogen antigens, including HIV-1 gp120, HIV-2 gp120, SIV gp120, ebolavirus glycoproteins, cytomegalovirus gB, HCV E2, dengue virus gE, Leishmania pifanoi LPG, Lewis-x antigen in Helicobacter pylori LPS, mannose in Klebsiella pneumonae LPS, di-mannose and tri-mannose in Mycobacterium tuberculosis ManLAM and Lewis-x antigen in Schistosoma mansoni SEA.,miscellaneous:In vitro, is a receptor for HIV-1 and transmits HIV-1 either in trans without DC infection, or in cis following a DC infection to permissive T-cells to induce a robust infection. Bound HIV-1 remains infectious over a prolonged period of time and it is proposed that bound HIV-1 is not degraded but protected in non-lysosomal acidic organelles within the DCs close to the cell membrane thus contributing to the HIV-1 infectious potential during transport by DCs from the periphery to lymphoid organs.,online information:DC-SIGN,online information:DC-SIGN entry,polymorphism:Genetic variations in CD209 determine Mycobacterium tuberculosis susceptibility [MIM:607948].,similarity:Contains 1 C-type lectin domain.,subunit:Homotetramer. Binds to many viral surface glycoproteins such as HIV-1 gp120, HIV-2 gp120, SIV gp120, ebolavirus envelope glycoproteins, cytomegalovirus gB, HCV E2 and dengue virus major envelope protein E.,tissue specificity:Predominantly expressed in dendritic cells and in DC-residing tissues. Also found in placental macrophages, endothelial cells of placental vascular channels, peripheral blood mononuclear cells, and THP-1 monocytes.,