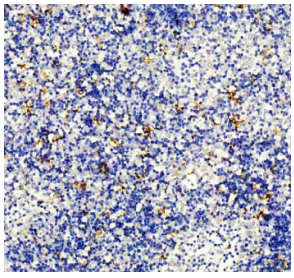
DC-SIGN Antibody / CD209 (RQ4179)

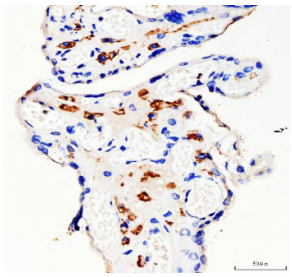
Catalog No.	Formulation	Size
RQ4179	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

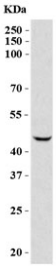
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9NNX6
Localization	Cell membrane, secreted
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This DC-SIGN antibody is available for research use only.



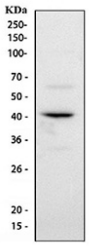
IHC staining of FFPE human spleen tissue with DC-SIGN antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human placental tissue with DC-SIGN antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of human HepG2 cell lysate with DC-SIGN antibody at 0.5ug/ml. Predicted molecular weight ~46 kDa.



Western blot testing of human ThP-1 cell lysate with DC-SIGN antibody at 0.5ug/ml. Predicted molecular weight ~46 kDa.

Description

DC-SIGN Antibody targets DC-SIGN, also known as CD209, a type II transmembrane C-type lectin receptor encoded by the CD209 gene that plays a key role in pathogen recognition and immune cell interactions. DC-SIGN is predominantly expressed on dendritic cells and certain macrophage populations, where it functions as a pattern recognition receptor involved in binding carbohydrate structures on pathogens. Through these interactions, DC-SIGN contributes to innate immune recognition and modulation of adaptive immune responses.

Functionally, DC-SIGN recognizes high-mannose and fucose-containing glycans present on the surface of a wide range of microorganisms. Ligand binding occurs through the extracellular C-type lectin domain in a calcium-dependent manner, enabling DC-SIGN to mediate pathogen capture and internalization. In addition to direct pathogen recognition, DC-SIGN participates in cell-cell adhesion events, including interactions between dendritic cells and T lymphocytes. A DC-SIGN Antibody enables investigation of lectin-mediated recognition mechanisms and immune cell communication pathways in research studies.

DC-SIGN expression is tightly linked to immune cell identity and differentiation. At the cellular level, DC-SIGN localizes to the plasma membrane and is enriched at sites of cell contact and endocytic activity. This localization supports its role in antigen uptake and presentation processes. Changes in DC-SIGN expression or surface distribution may reflect dendritic cell maturation state, activation status, or responses to inflammatory signals, making it a useful marker in studies of immune cell biology.

At the molecular level, DC-SIGN consists of a short cytoplasmic tail, a transmembrane region, a neck domain involved in receptor oligomerization, and a C-terminal carbohydrate recognition domain. The neck region allows formation of tetrameric receptor complexes that enhance avidity for multivalent ligands. This structural organization enables DC-SIGN to efficiently bind pathogen-associated glycans and participate in downstream signaling and trafficking events that influence immune responses.

From a biological and disease relevance perspective, DC-SIGN has been extensively studied in the context of infectious disease and immune regulation. Its ability to bind viral, bacterial, and fungal components has made it a focus of research into host-pathogen interactions. DC-SIGN-mediated interactions can influence antigen processing and immune signaling, highlighting its importance in shaping immune responses during infection and inflammation.

DC-SIGN Antibody reagents are valuable tools for studying C-type lectin receptor biology, dendritic cell function, and mechanisms of pathogen recognition. These antibodies support research into innate immunity, antigen presentation, and

immune cell interactions. NSJ Bioreagents provides DC-SIGN Antibody products intended for research use.

Application Notes

Optimal dilution of the DC-SIGN antibody should be determined by the researcher.

Immunogen

Amino acids MSDSKEPRLQQLGLLEEEQLRGLGFRQTRGYKSLA were used as the immunogen for the DC-SIGN antibody.

Storage

After reconstitution, the DC-SIGN antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.