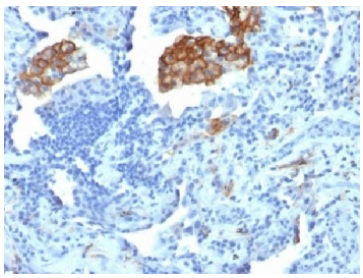
DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker [clone C209/1781] (V3452)

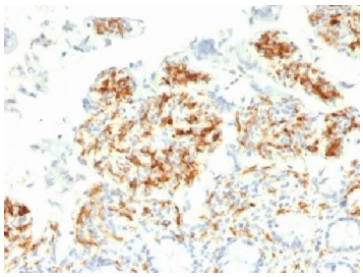
Catalog No.	Formulation	Size
V3452-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3452-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3452SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

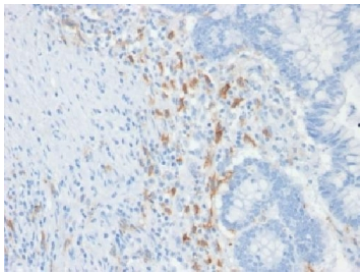
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	C209/1781
Purity	Protein G affinity chromatography
UniProt	Q9NNX6
Localization	Cytoplasmic, membranous, secreted
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This DC-SIGN Antibody C209/1781 is available for research use only.



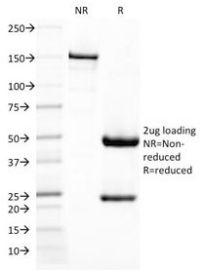
DC-SIGN Antibody C209/1781 in Human Lung Carcinoma IHC. Immunohistochemistry staining of FFPE human lung carcinoma tissue with DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The observed staining demonstrates DC-SIGN expression in human lung carcinoma tissue.



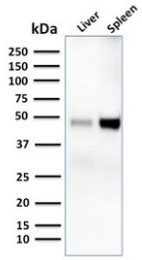
DC-SIGN Antibody C209/1781 in Human Small Intestine IHC. Immunohistochemistry analysis of FFPE human small intestine tissue with DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker. Tissue sections underwent HIER by boiling in 10 mM citrate buffer, pH 6, for 10-20 min and were allowed to cool at RT for 20 min before testing. CD209 staining is observed in human small intestine tissue.



DC-SIGN Antibody C209/1781 in Human Colon Carcinoma IHC. Immunohistochemistry staining of FFPE human colon carcinoma tissue with DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The observed staining demonstrates CD209 detection in human colon carcinoma tissue.



Purified DC-SIGN Antibody C209/1781 SDS-PAGE. Gel run analysis of purified, BSA-free DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker. Analysis of the purified mouse monoclonal antibody provides confirmation of antibody integrity and purity.



DC-SIGN Antibody C209/1781 in Human Liver and Spleen WB. Western blot testing of human liver and spleen lysates with DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker. Lane 1: human liver; Lane 2: human spleen. The observed band is consistent with detection of DC-SIGN/CD209 in human tissue lysates.

Description

DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker detects DC-SIGN, a type II transmembrane C-type lectin receptor encoded by the CD209 gene. Also known as CD209, DC-SIGN is expressed on dendritic cells and selected macrophage populations and participates in pathogen recognition, cell adhesion and immune regulation. The extracellular portion of the receptor contains a C-type lectin carbohydrate-recognition domain that binds glycan structures displayed by microorganisms and endogenous cells, enabling DC-SIGN to participate in both innate immune recognition and immune-cell interactions.

DC-SIGN is structurally organized into a cytoplasmic region, transmembrane domain, extracellular neck region and C-terminal carbohydrate-recognition domain. The neck region promotes receptor oligomerization, increasing avidity for multivalent carbohydrate ligands. This organization allows CD209 to recognize glycosylated targets while also functioning as an adhesion receptor. Interactions with molecules including ICAM-2 and ICAM-3 contribute to dendritic cell trafficking and communication with other immune cells.

Pathogen recognition is a major area of DC-SIGN research. The receptor can recognize carbohydrate structures associated with evolutionarily diverse microorganisms, including viruses, bacteria, fungi and parasites. Depending on the biological context, DC-SIGN-mediated binding may contribute to pathogen capture and internalization. Certain pathogens

can also exploit CD209-dependent interactions to promote infection or transmission, making the receptor important to studies of host-pathogen interactions, innate immunity and microbial immune-evasion mechanisms. The product datasheet specifically describes DC-SIGN as recognizing numerous evolutionarily divergent pathogens.

CD209 is also studied extensively in dendritic cell and macrophage biology. Its ability to recognize both microbial and endogenous carbohydrate ligands connects pathogen sensing with cellular adhesion and immune regulation. Research involving DC-SIGN includes dendritic cell differentiation, antigen capture, macrophage function, inflammatory responses and communication between innate and adaptive immune cells. These properties make the receptor a useful target for investigating how carbohydrate recognition influences immune responses in normal physiology and disease.

Clone C209/1781 is the original mouse monoclonal antibody generated using a partial recombinant human protein as immunogen. It has been evaluated by immunohistochemistry and Western blot, with validation including FFPE human lung carcinoma, small intestine and colon carcinoma tissues as well as human liver and spleen lysates. A sequenced and recombinantly expressed version of this monoclonal antibody is available as clone rC209/1781. NSJ Bioreagents supplies antibodies for immunology, dendritic cell and host-pathogen interaction research. A DC-SIGN Antibody can be used to investigate CD209 expression, pathogen recognition, C-type lectin receptor biology and immune-cell interactions.

For broader research on CD209 expression, dendritic cell biology and pathogen recognition, see our DC-SIGN Antibody / Dendritic Cell Marker Antibody page.

Application Notes

Titering of the DC-SIGN Antibody C209/1781 / Pathogen Recognition Receptor Marker may be required for optimal performance.

Immunogen

A human partial recombinant protein was used as the immunogen for the DC-SIGN Antibody C209/1781.

Storage

Store the DC-SIGN Antibody C209/1781 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

DC-SIGN antibody, CD209 antibody, Pathogen Recognition Receptor antibody, Dendritic Cell-Specific ICAM-3-Grabbing Non-Integrin antibody, CLEC4L antibody

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