Datasheet for ABIN5693101

anti-DC-SIGN/CD209 antibody

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Overview

Quantity:	100 µg
Target:	DC-SIGN/CD209 (CD209)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This DC-SIGN/CD209 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunohistochemistry (IHC)

Product Details

Purpose:	Anti-DC-SIGN/CD209 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human DC-SIGN.
Sequence:	MSDSKEPRLQ QLGLLEEEQL RGLGFRQTRG YKSLA
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins.
Characteristics:	Anti-DC-SIGN/ Antibody Picoband® (ABIN5693101). Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Target Details

Target:	DC-SIGN/CD209 (CD209)
Alternative Name:	CD209 (CD209 Products)
Background:	Synonyms: CD209 antigen, C-type lectin domain family 4 member L, Dendritic cell-specific ICAM-3-grabbing non-integrin 1, DC-SIGN, DC-SIGN1, CD209, CD209, CLEC4L 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. Background: DC-SIGN (Dendritic Cell-Specific Intercellular adhesion molecule-3-Grabbing Non-integrin) also known as CD209 (Cluster of Differentiation 209) is a protein which in humans is encoded by the CD209 gene. 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 acid repeats in the neck domain of this protein are rare but have a significant impact on ligand binding ability. This gene is closely related in terms of both sequence and function to a neighboring gene. DC-SIGN and L-SIGN differ in their ligand-binding properties and distribution. Alternative splicing results in multiple variants.
Molecular Weight:	46 kDa
Gene ID:	30835

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL Flow Cytometry, 1-3 µg/1x10^6 cells1. Barreiro, L. B., Neyrolles, O., Babb, C. L., Tailleux, L., Quach, H., McElreavey, K., van Helden, P. D., Hoal, E. G., Gicquel, B., Quintana-Murci, L. Promoter variation in the DC-SIGN-encoding gene CD209 is associated with tuberculosis. PLoS Med. 3: e20, 2006. 2. Bashirova, A. A., Wu, L., Cheng, J., Martin, T. D., Martin, M. P., Benveniste, R. E.,

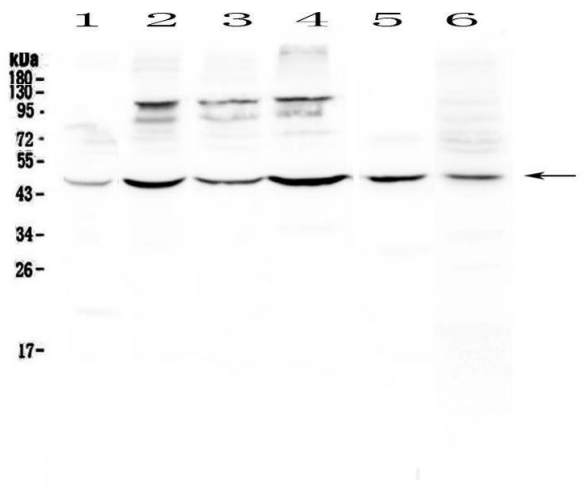
Application Details

	Lifson, J. D., KewalRamani, V. N., Hughes, A., Carrington, M. Novel member of the CD209 (DC-SIGN) gene family in primates. J. Virol. 77: 217-227, 2003.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na_2HPO_4, 0.05 mg NaN_3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

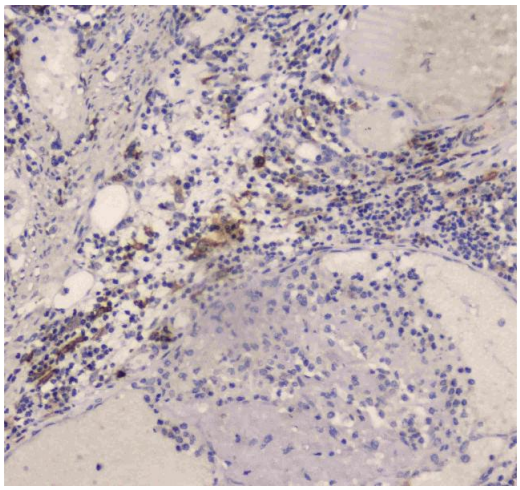
Images



Western Blotting

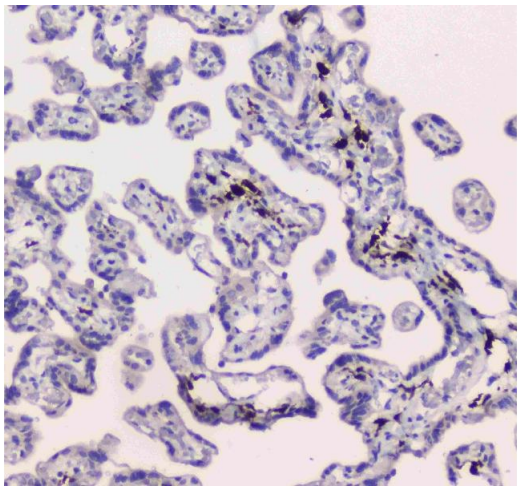
Image 1. Western blot analysis of DC-SIGN using anti-DC-SIGN antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: rat spleen tissue lysates, Lane 6: mouse thymus tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5

hour at RT. The membrane was incubated with rabbit anti-DC-SIGN antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for DC-SIGN at approximately 46KD. The expected band size for DC-SIGN is at 46KD.



Immunohistochemistry

Image 2. IHC analysis of DC-SIGN using anti-DC-SIGN antibody . DC-SIGN was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-DC-SIGN Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Immunohistochemistry

Image 3. IHC analysis of DC-SIGN using anti-DC-SIGN antibody . DC-SIGN was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-DC-SIGN Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-

Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.