

# CD209e (LL19): sc-73801

## BACKGROUND

Antigen-presenting cells are localized in essentially every tissue, where they operate at the interface of innate and acquired immunity by capturing pathogens and presenting pathogen-derived peptides to T cells. Dendritic cells capture Ags or viruses in peripheral tissue to transport them to lymphoid organs to induce cellular T cell responses. DC-specific ICAM-grabbing non-integrin (DC-SIGN), or CD209, functions as a cell adhesion receptor mediating both DC migration and T cell activation. CD209 also functions as an HIV-1R that captures HIV gp120 and facilitates DC-induced HIV transmission of T cells through high-affinity binding to viral envelope glycoproteins. Internalization motifs in the cytoplasmic tail of CD209 indicate a function of CD209 as an endocytic receptor.

## REFERENCES

1. Engering, A., et al. 2002. The dendritic cell-specific adhesion receptor DC-SIGN internalizes antigen for presentation to T cells. *J. Immunol.* 168: 2118-2126.
2. Geijtenbeek, T.B., et al. 2002. Marginal zone macrophages express a murine homologue of DC-SIGN that captures blood-borne antigens *in vivo*. *Blood* 100: 2908-2916.
3. Moris, A., et al. 2004. DC-SIGN promotes exogenous MHC I-restricted HIV-1 antigen presentation. *Blood* 103: 2648-2654.
4. Cormier, E.G., et al. 2004. L-SIGN (CD209L) and DC-SIGN (CD209) mediate transinfection of liver cells by hepatitis C virus. *Proc. Natl. Acad. Sci. USA* 101: 14067-14072.
5. Weber, K.S., et al. 2004. Sialylation of ICAM-2 on platelets impairs adhesion of leukocytes via LFA-1 and DC-SIGN. *Inflammation* 28: 177-188.
6. Sakuntabhai, A., et al. 2005. A variant in the CD209 promoter is associated with severity of dengue disease. *Nat. Genet.* 37: 507-513.
7. de la Rosa, G., et al. 2005. Regulated recruitment of DC-SIGN to cell-cell contact regions during zymosan-induced human dendritic cell aggregation. *J. Leukoc. Biol.* 77: 699-709.
8. Groot, F., et al. 2005. Lactoferrin prevents dendritic cell-mediated human immunodeficiency virus type 1 transmission by blocking the DC-SIGN-gp120 interaction. *J. Virol.* 79: 3009-3015.
9. Davis, C.W., et al. 2006. The location of asparagine-linked glycans on West Nile virions controls their interactions with CD209 (dendritic cell-specific ICAM-3 grabbing non-integrin). *J. Biol. Chem.* 281: 37183-37194.

## CHROMOSOMAL LOCATION

Genetic locus: Cd209e (mouse) mapping to 8 A1.1.

## SOURCE

CD209e (LL19) is a rat monoclonal antibody raised against amino acids 41-208 corresponding to CD209e of mouse origin.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer.

## APPLICATIONS

CD209e (LL19) is recommended for detection of CD209e of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); non cross-reactive with CD209b.

Suitable for use as control antibody for CD209e siRNA (m): sc-77365, CD209e shRNA Plasmid (m): sc-77365-SH and CD209e shRNA (m) Lentiviral Particles: sc-77365-V.

Molecular Weight of CD209e: 24 kDa.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.