

# CD209b (ER-TR9): sc-73642

## 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 antigens or viruses in peripheral tissue and transport them to lymphoid organs, an event that induces cellular T cell responses. The mouse CD209 family of cell adhesion receptors consists of CD209a (also known as DC-SIGN), CD209b, CD209c, CD209d, CD209e, CD209f and CD209g, all of which function to mediate the endocytosis and subsequent degradation of pathogens within lysosomal compartments. There are two human CD209 proteins, designated DC-SIGN and DC-SIGNR, which function in a similar manner to the mouse proteins.

## REFERENCES

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- 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.
- Moris, A., et al. 2004. DC-SIGN promotes exogenous MHC I-restricted HIV-1 antigen presentation. *Blood* 103: 2648-2654.
- 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.
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- Sakuntabhai, A., et al. 2005. A variant in the CD209 promoter is associated with severity of dengue disease. *Nat. Genet.* 37: 507-513.
- 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.
- 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.
- 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 nonintegrin). *J. Biol. Chem.* 281: 37183-37194.

## CHROMOSOMAL LOCATION

Genetic locus: Cd209b (mouse) mapping to 8 A1.1.

## SOURCE

CD209b (ER-TR9) is a rat monoclonal antibody raised against thymus cells of mouse origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking assays, sc-73642 L, 200 µg/0.1 ml.

CD209b (ER-TR9) is available conjugated to either phycoerythrin (sc-73642 PE) or fluorescein (sc-73642 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

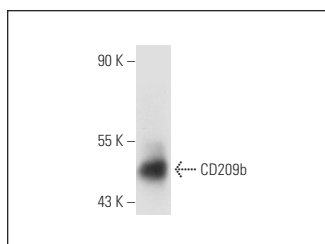
CD209b (ER-TR9) is recommended for detection of CD209b, also designated SIGN-R1, of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CD209b siRNA (m): sc-107000, CD209b shRNA Plasmid (m): sc-107000-SH and CD209b shRNA (m) Lentiviral Particles: sc-107000-V.

Molecular Weight of CD209b: 50 kDa.

Positive Controls: mouse lymph node extract: sc-364243.

## DATA



CD209b (ER-TR9): sc-73642. Western blot analysis of CD209b expression in mouse lymph node tissue extract.

## SELECT PRODUCT CITATIONS

- Lacerda-Queiroz, N., et al. 2017. Mechanism of splenic cell death and host mortality in a *Plasmodium yoelii* malaria model. *Sci. Rep.* 7: 10438.

## 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.