DC-SIGNR (h): 293T Lysate: sc-115461



The Power to Question

BACKGROUND

Dendritic cells (DC) are antigen-presenting immune system cells that are present on peripheral mucosal tissues and migrate to lymphoid tissues. DC-SIGN (DC-specific ICAM-3 grabbing nonintegrin) is a type II membrane protein that is exclusively expressed by DC. DC-SIGN, also designated CD209, binds to ICAM-3 to mediate the initial interaction between DC and resting T cells through the immunological synapse. The DC that are present in the initial sites of HIV-1 infection capture HIV-1 through DC-SIGN, which then facilitates the migration of DC to areas of T cell-rich secondary lymphoid organs, where it promotes efficient *trans* HIV-1 infection of these T cells. DC-SIGNR (DC-SIGN-related molecule), also designated CD209L and L-SIGN (liver/lymph node-specific ICAM-3 grabbing nonintegrin), is a type II integral membrane protein that is 77% identical to DC-SIGN. It is expressed on sinusoidal endothelial cells and binds the E2 glycoproteins of the hepatitis C virus.

REFERENCES

- Fauci, A. 1996. Host factors and the pathogenesis of HIV-induced disease. Nature 384: 529-534.
- Yokoyama-Kobayashi, M., Yamaguchi, T., Sekine, S. and Kato, S. 1999.
 Selection of cDNAs encoding putative type II membrane proteins on the cell surface from a human full-length cDNA bank. Gene 228: 161-167.
- Soilleux, E.J., Barten, R. and Trowsdale, J. 2000. DC-SIGN; a related gene, DC-SIGNR; and CD23 form a cluster on 19p13. J. Immunol. 165: 2937-2942.
- 4. Bashirova, A.A., Geijtenbeek, T.B., van Duijnhoven, G.C., van Vliet, S.J., Eilering, J.B., Martin, M.P., Wu, L., Martin, T.D., Viebig, N., Knolle, P.A., KewalRamani, V.N., van Kooyk, Y. and Carrington, M. 2001. A dendritic cell-specific intercellular adhesion molecule 3-grabbing nonintegrin (DC-SIGN)-related protein is highly expressed on human liver sinusoidal endothelial cells and promotes HIV-1 infection. J. Exp. Med. 193: 671-678.
- Pöhlmann, S., Soilleux, E.J., Baribaud, F., Leslie, G.J., Morris, L.S., Trowsdale, J., Lee, B., Coleman, N. and Doms, R.W. 2001. DC-SIGNR, a DC-SIGN homologue expressed in endothelial cells, binds to human and simian immunodeficiency viruses and activates infection in trans. Proc. Natl. Acad. Sci. USA 98: 2670-2675.
- Lai, W.K., Sun, P.J., Zhang, J., Jennings, A., Lalor, P.F., Hubscher, S., McKeating, J.A. and Adams, D.H. 2006. Expression of DC-SIGN and DC-SIGNR on human sinusoidal endothelium: a role for capturing hepatitis C virus particles. Am. J. Pathol. 169: 200-208.

CHROMOSOMAL LOCATION

Genetic locus: CD209 (human) mapping to 19p13.2.

PRODUCT

DC-SIGNR (h): 293T Lysate represents a lysate of human DC-SIGNR transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

DC-SIGNR (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DC-SIGNR antibodies. Recommended use: 10-20 μ l per lane

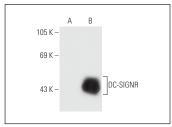
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

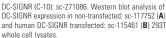
DC-SIGNR (C-10): sc-271086 is recommended as a positive control antibody for Western Blot analysis of enhanced human DC-SIGNR expression in DC-SIGNR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

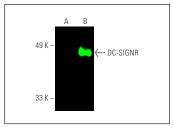
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA







DC-SIGNR (C-10): sc-271086. Near-infrared western blot analysis of DC-SIGNR expression in non-transfected: sc-117752 (\mathbf{A}) and human DC-SIGNR transfected: sc-115461 (\mathbf{B}) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-lgG κ BP-CFL 680: sc-516180.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.