

# DC-SIGNR (N-17): sc-17259

## 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-SIGN functions to transport HIV-1 from exposed mucosal surfaces to a lymphoid compartment.

## REFERENCES

1. Fauci, A. 1996. Host factors and the pathogenesis of HIV-induced disease. *Nature* 384: 529-534.
2. Yokoyama-Kobayashi, M., et al. 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.
3. Soilleux, E.J., et al. 2000. DC-SIGN; a related gene, DC-SIGNR; and CD23 form a cluster on 19p13. *J. Immunol.* 165: 2937-2942.
4. Bashirova, A.A., et al. 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.
5. Pöhlmann, S., et al. 2001. DC-SIGNR, a DC-SIGN homolog expressed in endothelial cells, binds to human and simian immunodeficiency viruses and activates infection in trans. *Proc. Natl. Acad. Sci. USA* 98: 2670-2675.

## CHROMOSOMAL LOCATION

Genetic locus: CLEC4M (human) mapping to 19p13.

## SOURCE

DC-SIGNR (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DC-SIGNR of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17259 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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) or our catalog for detailed protocols and support products.

## APPLICATIONS

DC-SIGNR (N-17) is recommended for detection of DC-SIGNR of human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DC-SIGNR siRNA (h): sc-42859, DC-SIGNR shRNA Plasmid (h): sc-42859-SH and DC-SIGNR shRNA (h) Lentiviral Particles: sc-42859-V.

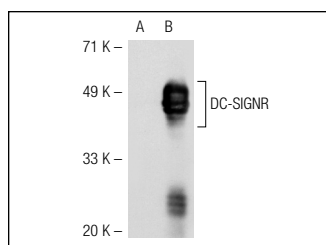
Molecular Weight of DC-SIGNR: 44 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DC-SIGNR (N-17): sc-17259. Western blot analysis of DC-SIGNR expression in non-transfected: sc-117752 (A) and human DC-SIGNR transfected: sc-115461 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **DC-SIGNR (C-10): sc-271086** or **DC-SIGNR (F-2): sc-390788**, our highly recommended monoclonal alternatives to DC-SIGNR (N-17).