



NIH AIDS Reagent Program

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DATA SHEET

Reagent: Anti-Human DC-SIGN Polyclonal (ED)

Catalog Number: 11238

Lot Number: 2 2349-0004

Provided: 50 µg per vial of purified IgG in PBS containing 0.02% sodium azide.

Host: Rabbit anti-DC-SIGN polyclonal antibody was raised against a synthetic peptide (CYFMSNSQRN WHDSITA) corresponding to amino acids 277 to 293 of human DC-DIGN (1).

Description: Dendritic cells (DCs) that control immune responses were recently found to capture and transport HIV from the mucosal area to remote lymph nodes (1), where DCs hand over HIV to CD4+ T lymphocytes. DCs also amplify the amount of virus and extend the duration of viral infectivity. Multiple strains of HIV-1, HIV-2 and SIV bind to DCs via DC-SIGN (2). ICAM-3 is the natural ligand for DC-SIGN (3). A DC-SIGN homologue (termed DC-SIGNR, L-SIGN, and DC-SIGN2) was identified recently (4-8). DC-SIGN forms a novel gene family with DC-SIGNR and many alternatively spliced isoforms of DC-SIGN and DC-SIGNR (8). The expression of DC-SIGN was found in mucosal tissues including placenta, small intestine, and rectum.

Recommended Storage: Keep at 4°C for short term storage and -80°C for long term storage. Avoid freeze-thaw cycles as reagent degradation may result.

Contributor: ProSci, Incorporated

References: Geijtenbeek TB, Kwon DS, Torensma R, et al. DC-SIGN, a dendritic cell-specific HIV-1-binding protein that enhances trans-infection of T cells. *Cell* **100**: 587-597, 2000.

Pohlmann S, Baribaud F, Lee B, et al. RW. DC-SIGN interactions with human immunodeficiency virus type 1 and 2 and simian immunodeficiency virus. *J. Virology* **75**: 4664-4672, 2000.

Geijtenbeek TB, Torensma R, van Vliet SJ, et al. Identification of DC-SIGN, a novel dendritic cell-specific ICAM-3 receptor that supports primary immune responses. *Cell* **100**: 575-585, 2000.

Soilleux EJ, Barten R, Trowsdale J. DC-SIGN; a related gene, DC-SIGNR; and CD23 form a

ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

cluster on 19p13. *J. Immunology* 165: 2937-42, 2000.

Pohlmann S, Soilleux EJ, Baribaud F, et al DC-SIGNR, a DC-SIGN homologue expressed in endothelial cells, binds to human and simian immunodeficiency viruses and activates infection in trans. *PNAS* 98: 2670-2675, 2001.

Bashirova AA, Geijtenbeek TB, van Duijnhoven GC, et al. 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, 2001.

Mitchell DA, Fadden AJ, Drickamer K. A novel mechanism of carbohydrate recognition by the C-type lectins DC-SIGN and DC-SIGNR: Subunit organisation and binding to multivalent ligands. *J Biol Chem* 276: 28939-28945, 2001.

Mummindi S, Catono G, Lam L, Hoefle A, Telles V, Begum K, Jimenez F, Ahuja SS, Ahuja SK. Extensive repertoire of membrane-bound and soluble dendritic cell-specific ICAM-3-grabbing nonintegrin 1 (DC-SIGN1) and DC-SIGN2 isoforms. Inter-individual variation in expression of DC-SIGN transcripts. *J Biol Chem* 276: 33196-33212, 2001.

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIH from ProSci Incorporated: Anti-Human DC-SIGN Polyclonal (ED)." Also include the references cited above in any publications.

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