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Anti-DC-SIGN (CT)

CATALOG No.: PX203A SIZE: 100 µg
PX203B SIZE: 0.5 mg

BACKGROUND:

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.

SOURCE:

Rabbit anti-DC-SIGN polyclonal antibody was raised against a synthetic peptide (CSRDEEQFLSPAPATPN PPPA) corresponding to amino acids 384 to 404 of human DC-DIGN (1).

APPLICATION:

This antibody can be used for detection of DC-SIGN by Western blot at 1 to 2 µg/ml. Human placenta lysate can be used as a positive control. A band at approximately 44 kDa can be detected. **For research use only.**

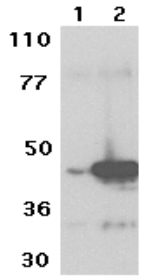
STORAGE:

It is supplied as immunoaffinity purified IgG, 100 µg in 200 µl of PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.

RELATED PRODUCTS:

Blocking peptide, 50 µg at 200 µg/ml, is available for competition studies.

Human placenta lysate, 200 µg at 2 mg/ml, is available for positive control.



Western blot detection of GST-DC-SIGN fusion protein expressed in *E. Coli* in the absence (lane 1) and presence (lane 2) of inducing reagent IPTG with anti-DC-SIGN at 0.5 µg /ml.

REFERENCES:

1. 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.* 2000;100:587-97.

2. 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 Virol.* 2001;75(10):4664-72.

3. 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. 2000;100(5):575-85.

4. Soilleux EJ, Barten R, Trowsdale J. DC-SIGN; a related gene, DC-SIGNR; and CD23 form a cluster on 19p13. *J Immunol.* 2000;165(6):2937-42.

5. 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. *Proc Natl Acad Sci USA*. 2001;98(5):2670-2675.

6. Bashirova AA, Geijtenbeek TB, van Duijnhoven GC, at el. 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.* 2001;193(6):671-8.

7. 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.* 2001 *in press*

8. Mummidi S, Catano G, Lam L, et al. Extensive repertoire of membrane-bound and soluble DC-SIGN1 and DC-SIGN2 isoforms: Inter-individual variation in expression of DC-SIGN transcripts. *J Biol Chem.* 2001 *in press*

CAUTION: NOT FOR USE IN HUMANS. FOR RESEARCH PURPOSES ONLY.

Cell Sciences, Inc.
1504 Providence Highway
Unit 11B
Norwood, MA 02062

Toll Free: 888 769-1246
Phone: 781 769-0610
Fax: 781 769-0542

E-mail: info@cellsciences.com
Web Site: www.cellsciences.com