

## Anti-DC-SIGN (ED) Polyclonal Antibody

**CATALOG No.:** PX212A      **SIZE:** 100 µg  
PX212B      **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<sup>+</sup> 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 (CYFMSNSQRN WHDSITA) corresponding to amino acids 277 to 293 of human DC-SIGN (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.

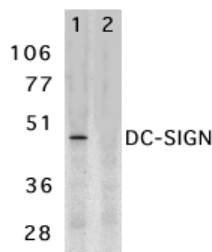
### STORAGE:

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, 100 µg at 2 mg/ml, is available for positive control.



Western blot analysis of DC-SIGN expression in human placenta tissue lysate in the absence (lane 1) and presence (lane 2) of blocking peptide with anti-DC-SIGN at 2 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. 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, 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*. 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.



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