

## DC-SIGN Antibody

### *DC-SIGN (8B6): Dendritic cell-specific ICAM-3-grabbing nonintegrin 1*

**CATALOG NO.: PM-2348**

#### **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 are known to exist (8). The expression of DC-SIGN was found in mucosal tissues including placenta, small intestine, and rectum.

#### **SOURCE:**

Mouse monoclonal DC-SIGN antibody was raised against a recombinant His-tagged protein fragment corresponding to the extracellular region of human DC-SIGN (1). DC-SIGN antibody was purified from ascites from hybridoma clone 8B6.

#### **APPLICATION:**

DC-SIGN antibody can be used for detection of DC-SIGN in immunoblots at 1 – 2 µg/ml and in immunohistochemistry at 5 – 10 µg/ml. (Optimal dilutions should be determined by user.) Human uterus and lymph node can be used as positive controls. DC-SIGN antibody is human specific.

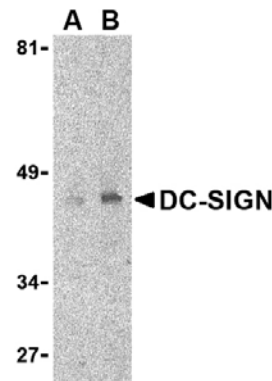
#### **For research use only.**

#### **STORAGE:**

DC-SIGN antibody is supplied as immunoaffinity chromatography purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.

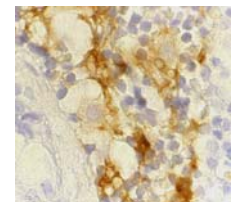
#### **RELATED PRODUCTS:**

Human uterus tissue lysate, Catalog No. **1317**.  
DC-SIGN antibody (5D7), Catalog No. **PM2347**.  
DC-SIGN antibody (CT), Catalog No. **2347**.  
DC-SIGN antibody (ED), Catalog No. **2349**.



Western blot analysis of DC-SIGN in human uterus tissue lysate with DC-SIGN antibody at (A) 1 and (B) 2 µg/ml.

Immunohistochemistry of DC-SIGN in lymph node tissue with DC-SIGN antibody at 10 µg/ml.



#### **REFERENCES:**

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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; 100:575-85.
4. Soilleux EJ, Barten R, Trowsdale J. DC-SIGN; a related gene, DC-SIGNR; and CD23 form a cluster on 19p13. *J. Immunol.* 2000; 165:2937-42.
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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; 193:671-8.
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; 276:28939-45.
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; 276:33196-212. (RD0406)