

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DC-SIGNR/CD299.
Source	Monoclonal Mouse IgG _{2B} Clone # 120604
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NIH-3T3 mouse embryonic fibroblast cell line transfected with human DC-SIGNR/CD299 Accession # Q9H2X3
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human DC-SIGNR/CD299 transfected 3T3 mouse embryonic fibroblast cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Dendritic cell-specific ICAM-3 grabbing non-integrin (DC-SIGN or CD299) and DC-SIGN related protein (DC-SIGNR, DC-SIGN2, L-SIGN or CD209L) are type II membrane proteins that are mannose-specific calcium-dependent (C-type) lectins. The two proteins share 77% amino acid identity. DC-SIGN mediates interactions between dendritic cells (DCs) and T cells. Both DC-SIGN and DC-SIGNR have been shown to bind HIV, hepatitis C glycoproteins, Ebola virus glycoproteins and the cellular adhesion protein ICAM-3 (1-4). DC-SIGN and DC-SIGNR appear to selectively recognize and bind viral proteins containing a large portion of high-mannose oligosaccharides (5). Though DC-SIGN and DC-SIGNR are found on the same chromosome, they are not expressed in the same tissue. DC-SIGN is expressed solely on Dendritic cells while DC-SIGNR is found on endothelial cells in the liver and lymph node sinuses and in a significant portion of capillary endothelial cells in term placenta (1, 4).

References:

1. Pohlmann, S. *et al.* (2001) *Proc. Natl. Acad. Sci. USA* **98**:2670.
2. Pohlmann, S. *et al.* (2003) *J. Virol.* **77**:4070.
3. Simmons, L.G. *et al.* (2003) *J. Virol.* **77**:1337.
4. Bahirova, A.A. *et al.* (2001) *J. Exp. Med.* **193**:671.
5. Feinberg, H. *et al.* (2001) *Science* **294**:2163.

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