

## DESCRIPTION

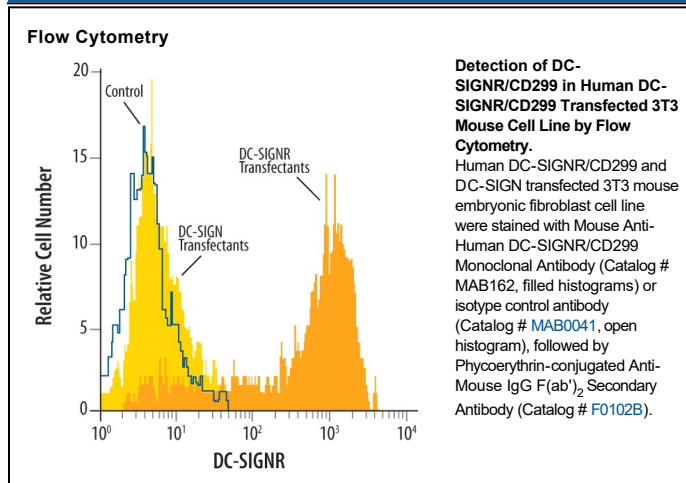
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DC-SIGNR/CD299.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 120604
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NIH-3T3 mouse embryonic fibroblast cell line transfected with human DC-SIGNR/CD299 Accession # Q9H2X3
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

## 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
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Adhesion Blockade</b>	The adhesion of NIH-3T3 mouse embryonic fibroblast cells (5 x 10 <sup>4</sup> cells/well) to immobilized Recombinant Human ICAM-3/CD50 Fc Chimera (Catalog # 715-IC, 5 µg/mL, 100 µL/well) was maximally inhibited (80-100%) by 2.5 µg/mL of the antibody.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.