

#### 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<br>Accession # Q9H2X3   |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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.

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

#### PREPARATION AND STORAGE

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

#### PRODUCT SPECIFIC NOTICES

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