

**DESCRIPTION**

<b>Source</b>	Chinese Hamster Ovary cell line, CHO-derived	
	YPYDVDPDYA	Human DC-SIGN/CD209 (Gln59-Ala404) Accession # Q9NNX6
	N-terminus	C-terminus
<b>N-terminal Sequence Analysis</b>	Tyr	
<b>Predicted Molecular Mass</b>	41 kDa	

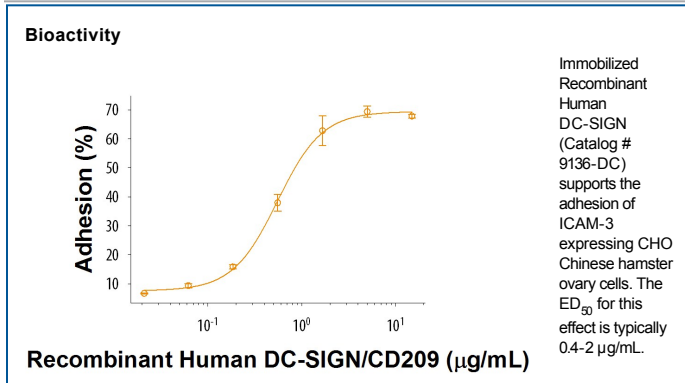
**SPECIFICATIONS**

<b>SDS-PAGE</b>	41-48 kDa, reducing conditions
<b>Activity</b>	Measured by the ability of the immobilized protein to support the adhesion of ICAM-3 expressing CHO Chinese hamster ovary cells. The ED <sub>50</sub> for this effect is typically 0.4-2 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 250 µg/mL in PBS.
<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>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

Human Dendritic Cell-specific ICAM-3 Grabbing Non-integrin (DC-SIGN)/CD209 is a member of the C-type lectin family (1). The canonical DC-SIGN/CD209 isoform is a 46 kDa, 404 amino acid (aa) type II transmembrane protein (2). The extracellular region contains a Ca<sup>2+</sup>-dependent carbohydrate-binding lectin domain (2). Multiple human DC-SIGN/CD209 splice forms exist, generating both membrane-bound and soluble forms (3). DC-SIGN/CD209 is not well conserved between mouse and human, with the extracellular domain sharing only 63% aa identity. The DC-SIGN/CD209 lectin domain binds mannose oligosaccharides on pathogens including HIV as well as self glycoproteins including ICAMs (2, 4). DC-SIGN/CD209 binds to butyrophilin 2A1 and this interaction can be blocked by HIV pp120. DC-SIGN/CD209 is expressed on dendritic cells (DC) and inflammatory macrophages and contributes to antigen presentation (6, 7).

**References:**

1. Liu, W. *et al.* (2004) *J. Biol. Chem.* **279**:18748.
2. Curtis, B.M. *et al.* (1992) *Proc. Natl. Acad. Sci. USA* **89**:8356.
3. Mummidi, S. *et al.* (2001) *J. Biol. Chem.* **276**:33196.
4. Anthony, R.M. *et al.* (2008) *Proc. Natl. Acad. Sci. USA* **105**:19571.
5. Malcherek, G. *et al.* (2007) *J. Immunol.* **179**:3804.
6. Geijtenbeek, T.B. *et al.* (2000) *Cell* **100**:575.
7. Garcia-Vallejo, J.J. and Y. van Kooyk (2013) *Trends Immunol.* **34**:482.