

# Human DC-SIGN / CD209 Protein (Fc Tag)



Sino Biological  
Biological Solution Specialist

Catalog Number: 10200-H01H

## General Information

### Gene Name Synonym:

CD209; CDSIGN; CLEC4L; DC-SIGN; DC-SIGN1; MGC129965

### Protein Construction:

A DNA sequence encoding the N-terminally truncated extracellular domain (Lys 62-Ala 404) of human DC-SIGN (NP\_066978.1) was expressed with the fused Fc region of human IgG1 at the N-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Glu 20

### Molecular Mass:

The recombinant human Fc/DC-SIGN chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 580 amino acids and has a calculated molecular mass of 65.8 kDa. As a result of glycosylation, the apparent molecular mass of rh Fc/DC-SIGN is approximately 75 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

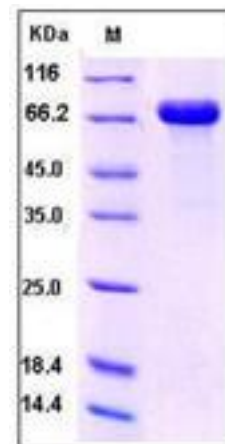
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Dendritic cell (DC)-specific intercellular adhesion molecule 3 (ICAM-3) grabbing nonintegrin (DC-SIGN), also known as CD209, is a type II transmembrane protein on DCs with a C-type lectin extracellular domain, is capable of binding ICAM-3 on resting T cells in the secondary lymphoid organs, providing the initial contact between these cells during the establishment of cell-mediated immunity. It is not only a pattern recognition receptor but implicated in immunoregulation of DCs. It has important role in mediating DC adhesion, migration, inflammation, activating primary T cell, triggering immune response and participating in immune escape of pathogens and tumors. DC-SIGN also mediates capture and internalization of viral, bacterial, and fungal pathogens by dendritic cells, such as HIV-1, Ebola virus, cytomegalovirus, Dengue virus, and hepatitis C virus. DC-SIGN is unique in that it regulates adhesion processes, such as DC trafficking and T-cell synapse formation, as well as antigen capture. Moreover, even though several C-type lectins have been shown to bind HIV-1, DC-SIGN does not only capture HIV-1 but also protects it in early endosomes allowing HIV-1 transport by DC to lymphoid tissues, where it enhances trans infection of T cells.

## References

1. Geijtenbeek TB, *et al.* (2002) DC-SIGN, a C-type lectin on dendritic cells that unveils many aspects of dendritic cell biology. *J Leukoc Biol.* 71(6): 921-31.
2. Masso M. (2003) DC-SIGN points the way to a novel mechanism for HIV-1 transmission. *MedGenMed.* 5(2): 2.
3. Zhou T, *et al.* (2006) DC-SIGN and immunoregulation. *Cell Mol Immunol.* 3(4): 279-83.

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