Data Sheet (Cat.No.TMPY-04714)



DC-SIGN Protein, Rhesus, Recombinant (hFc)

General Information

Synonyms: CD209 molecule; DC-SIGN; CD209

The rhesus CD209 (AAK74185.1) (Lys62-Glu381) was expressed with the Fc region of Human

IgG1 at the N-terminus.

Species: Rhesus

Expression Host: HEK293 Cells
Accession: AAK74185.1

Molecular Weight: 64.9 kDa (predicted)

QC Testing

Biological Activity: Testing in progress

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin: $< 1.0 \text{ EU/}\mu\text{g}$ of the protein as determined by the LAL method.

Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically,

Formulation: a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a

protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at-80°C. For reconstituted proteinsolutions, the solution can be stored at -20°C to -80'C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

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 an important role in mediating DC adhesion, migration, inflammation, activating primary T cell, triggering immune response and participating in immune escape of

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pathogens and tumors. DC-SIGN also mediates the 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. Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

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.

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