Human DC-SIGNR / CD299 Protein (ECD)

Catalog Number: 10559-HNCH

General Information

Gene Name Synonym:

CD209L; CD299; CLEC4M; DC-SIGN2; DC-SIGNR; DCSIGNR; HP10347; L-SIGN; LSIGN; MGC129964; MGC47866

Protein Construction:

A DNA sequence encoding the human CLEC4M (NP_055072.3) (Ser78-Glu399) was expressed.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 80 % as determined by SDS-PAGE

Endotoxin:

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

Predicted N terminal: Ser 78

Molecular Mass:

The recombinant human CLEC4M consists 322 amino acids and predicts a molecular mass of 37 kDa.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

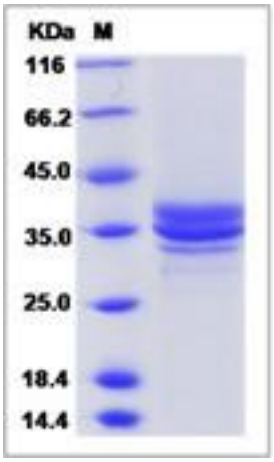
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

C-type lectin domain family 4, member M, also known as DC-SIGNR and CLEC4M, is a type II integral membrane protein that is 77% amino acid identical to DC-SIGN, an HIV gp12-binding protein. Though the encoded gene located in the same chromosome, DC-SIGN is expressed solely on dendritic cells, while DC-SIGNR is predominantly found in liver sinusoidal endothelial cells and lymph node, as well as placental endothelium. DC-SIGNR exists as a homotetramer, and the tandem repeat domain, also called neck domain, mediates oligermerization. DC-SIGNR is ragarded as a pathogen-recognition receptor involved in peripheral immune surveillance in liver, and probably mediate the endocytosis of pathogens which are subsequently degraded in lysosomal compartments. DC-SIGNR appears to selectively recognize and bind many viral surface glycoproteins containing high mannose N-linked oligosaccharides in a calcium-dependent manner, including HIV-1 gp12, HIV-2 gp12, SIV gp12, ebolavirus glycoproteins, HCV E2, and human SARS coronavirus protein S, as well as the cellular adhesion protein ICAM3. DC-SIGNR have been thought to play an important role in establishing HIV infection by enhancing trans-infection of CD4(+)T cells in the regional lymph nodes. It may affect susceptibility to HIV infection by a mechanism that is different in females and males. DC-SIGNR can bind to hepatitis C virus (HCV), and its polymorphism might affect HCV loads supporting the concept that DC-SIGNR contributes to HCV replication efficacy.

References

Nattermann J, et al. (2006) The tandem-repeat polymorphism of the DC-SIGNR gene in HCV infection. J Viral Hepat. 13(1): 42-6.
Wichukchinda N, et al. (2007) The polymorphisms in DC-SIGNR affect susceptibility to HIV type 1 infection. AIDS Res Hum Retroviruses. 23(5): 686-92.