Human Podoplanin / PDPN Protein (His & Fc Tag)

Catalog Number: **11065-H03H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AGGRUS; GP36; Gp38; GP40; HT1A-1; OTS8; PA2.26; T1A; T1A-2; T1A2; TI1A; Gp38; OTS-8; RANDAM-2; T1-alpha; T1a; T1alpha

Protein Construction:

A DNA sequence encoding the extracellular domain of human PDPN short isoform (Q86YL7-1) (Met 1-Lys 123) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized human Podoplanin (Cat: 11065-H03H) at 10 μg/mL (100 μl/well) can bind biotinylated human CLEC1B-His (Cat:10976-H07H), The EC_{50} of biotinylated human CLEC1B-His is 0.4-1.0 μg/mL.

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 ℃

Predicted N terminal: Glu 21

Molecular Mass:

The recombinant human PDPN/Fc chimera is a disulfide-linked homodimer. The reduced monomer comprises 351 amino acids with a predicted molecular mass of 38.6 kDa. As a result of glycosylation, rh PDPN/Fc monomer migrates as an approximately 50-55 kDa band 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:

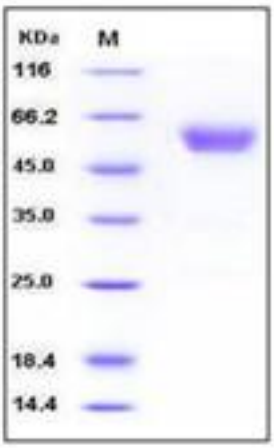
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Podoplanin, also known as PDPN, is a type-I integral membrane glycoprotein with diverse distribution in human tissues. The physiological function of this protein may be related to its mucin-type character. The homologous protein in other species has been described as a differentiation antigen and influenza-virus receptor. The specific function of this protein has not been determined. Alternatively spliced transcript variants encoding different isoforms have been identified.PDPN is a mucin-type glycoprotein negatively charged by extensive O-glycosylation and a high content of sialic acid, which expresses the adhesive property. It is selectively expressed in lymphatic endothelium as well as lymphangiomas, Kaposi sarcomas, and in a subset of angiosarcomas with probable lymphatic differentiation. PDPN may contribute to form odontoblastic fiber or function as the anchorage to the tooth development and in proliferating epithelial cells of cervical loop and apical bud. The intensity of podoplanin expression is negatively correlated with the expression of CD34 and factor VIII. Podoplanin would be useful as a diagnostic marker for epithelioid hemangioendothelioma in liver tumors.

References

1.Kimura, N. et al., 2005, Pathol Int. 55 (2): 83-86.
2.Ordó?ez, N.G., 2006, Adv Anat Pathol. 13 (2): 83-88.
3.Wicki, A. et al., 2007, Br. J. Cancer. 96 (1): 1-5.