

# Recombinant Mouse PDPN / Podoplanin (aa 1-133)

Catalog Number: 50256-M08B1



**Sino Biological Inc.**  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

Pdnp,RP23-348F1.2, Gp38, OTS-8, PA2.26, RANDAM-2, T1a, T1alpha

### Protein Construction:

A DNA sequence encoding the mouse PDPN N-terminal fragment (NP\_034459.2) (Met 1-Lys 133) was expressed, with a C-terminal polyhistidine tag.

**Source:** Mouse

**Expression Host:** Baculovirus-Insect cells

## QC Testing

**Purity:** > 92 % as determined by SDS-PAGE.

### Endotoxin:

<1.0 EU per µg 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:** Gly 23

### Molecular Mass:

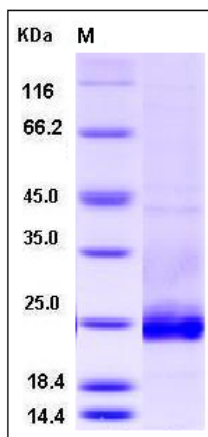
The recombinant mouse PDPN (aa 1-133) consists of 121 amino acids and has a calculated molecular mass of 13 kDa. It migrates as an approximately 25 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from 0.2µm filtered solution of 20mM Tris, 500mM NaCl, pH7.4, 10% gly

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

### SDS-PAGE:



## Usage Guide

### Storage:

Store it under sterile conditions at -70°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.

## 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): 83-6.
2. Ordóñez NG. 2006, *Adv Anat Pathol.* 13 (2): 83-8.
3. Wicki A. et al., 2007, *Br J Cancer.* 96 (1): 1-5.
4. Fujii T. et al., 2008, *Mod Pathol.* 21 (2): 125-30.
5. Sawa Y. et al., 2008, *Acta Histochem Cytochem.* 41 (5): 121-6.
6. Kaddu S. et al., 2009, *Am J Dermatopathol.* 31 (2): 137-9.

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