

Recombinant Mouse Podoplanin/PDPN Protein (Fc Tag)

Catalog Number: PKSM041291

Note: Centrifuge before opening to ensure complete recovery of vial contents.

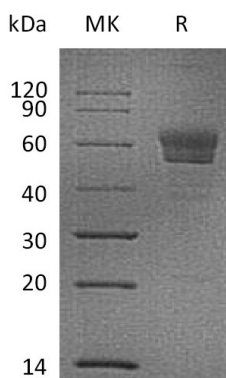
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse Podoplanin/PDPN protein Gly23-Lys 133, with an C-terminal Fc
Calculated MW	38.6 kDa
Observed MW	55-70 kDa
Accession	Q62011
Bio-activity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



Background

Podoplanin belongs to the podoplanin family, also known as Glycoprotein 38. Podoplanin is synthesized as a 172 amino acid (aa) precursor with a 22 aa signal sequence, a 119 aa extracellular domain (ECD), a 21 aa transmembrane region, and a short, 10 aa cytoplasmic tail. Detected at high levels in lung and brain, at lower levels in kidney, stomach, liver, spleen and esophagus, and not detected in skin and small intestine. Expressed in epithelial cells of choroid plexus, ependyma, glomerulus and alveolus, in mesothelial cells and in endothelia of lymphatic vessels. Also expressed in stromal cells of peripheral lymphoid tissue and thymic epithelial cells. Detected in carcinoma cell lines and cultured fibroblasts. Expressed at higher levels in colon carcinomas than in normal colon tissue. It can interact with CLEC1B; the interaction is independent of CLEC1B glycosylation and activates CLEC1B. It may be involved in cell migration and/or actin cytoskeleton organization. When expressed in keratinocytes, induces changes in cell morphology with transfected cells showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion. Required for normal lung cell proliferation and alveolus formation at birth. Ligand for CLEC1B, a platelet receptor. Induces platelet aggregation. Does not have any effect on folic acid or amino acid transport. Does not function as a water channel or as a regulator of aquaporin-type water channels.