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Datasheet for ABIN1589760

Podoplanin Protein (PDPN) (Soluble) (His tag)

Overview

| | |
|-------------------------------|---|
| Quantity: | 5 µg |
| Target: | Podoplanin (PDPN) |
| Protein Characteristics: | Soluble |
| Origin: | Human |
| Source: | Escherichia coli (E. coli) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This Podoplanin protein is labelled with His tag. |

Product Details

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| Purpose: | Podoplanin, soluble |
| Sequence: | GSSHHHHHHS SGLVPRGSHM EGASTGQPED DTETTGLEGV AMPGAEDDVV TPGTSEDRYK SGLTTLVATS VNSVTGIRIE DLPTSESTVH AQEQSPSATA SNVATSHsTE KVDGDTQTTV EKDGLST |
| Specificity: | Chromosomal location:1p36.21 |
| Characteristics: | Length (aa):127 |
| Purity: | > 95 % by SDS-PAGE |

Target Details

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|-------------------|--|
| Target: | Podoplanin (PDPN) |
| Alternative Name: | Podoplanin (PDPN Products) |

Target Details

Background: Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1-alpha (T1A), and aggrus, is a 36 kDa type I transmembrane sialoglycoprotein and member of the Podoplanin family. Podoplanin has three potential splice variants, the longest of which is represented by a 238 amino acid precursor (NP_006465). It contains an undefined signal sequence, a 22 aa transmembrane segment (aa 207-228) and a short cytoplasmic tail (aa 229-238). The ECD contains abundant Ser/Thr residues that could serve as potential O-linked glycosylation sites. The cytoplasmic tail contains putative sites for protein kinase C phosphorylation. There are two potential alternate start sites at Met 77 (Swiss Prot #: Q86YL7) and Met 119 (EAW51692) that generate short forms. The 162 aa short form Podoplanin precursor shares 47% aa identity with mouse Podoplanin. Podoplanin is expressed on glomerular epithelial cells (podocytes), type I lung alveolar cells, lymphatic endothelial cells, and numerous tumors, including colorectal tumors, squamous cell carcinomas, testicular seminoma, and brain tumors. One study shows high expression of Podoplanin mRNA in placenta, lung, skeletal muscle, and heart, and weaker levels in brain, kidney, and liver. Podoplanin is the ligand for C-type lectin-like receptor 2 (CLEC-2). Their association is dependent on sialic acid on O-glycans of Podoplanin. Through its association with CLEC-2, Podoplanin induces platelet aggregation and tumor metastasis. Podoplanin is also necessary for lymphatic vessel formation, normal lung cell proliferation and alveolus formation at birth. The recombinant soluble Podoplanin starts with GLST and ends with GLST.

Synonyms: PDPN, T1A, GP36, GP40, Gp38, OTS8, T1A-2, AGGRUS, HT1A-1, PA2.26

Molecular Weight: 13.1 kDa

Gene ID: 10630

NCBI Accession: [NM_001006624](#), [NP_001006625](#)

UniProt: [Q86YL7](#)

Pathways: [Dicarboxylic Acid Transport](#)

Application Details

Comment: Soluble Receptors

Restrictions: For Research Use only

Handling

Format: Lyophilized

Handling

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| Reconstitution: | We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-1.0 mg/mL. This solution can then be diluted into other aqueous buffers and stored at 4 °C for 1 week or -20 °C for future use. |
| Buffer: | PBS |
| Handling Advice: | Centrifuge vial prior to opening. |
| Storage: | RT, -20 °C |
| Storage Comment: | The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20°C. Reconstituted sPodoplanin should be stored in working aliquots at -20°C. |