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Datasheet for ABIN1589762

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

Overview

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

Product Details

Purpose:	Podoplanin, soluble
Sequence:	GTIGVNEDDI VTPGTGDGMV PPGIEDKITT TGATGGLNES TGKAPLVPTQ RERGTPPLE ELSTSATSDH DHREHESTTT VKVVTSHSVD KKTSHPNRDN AGDETQTTDK KDGLPVVTLE HHHHHH
Specificity:	Chromosomal location:4 E1, 4
Characteristics:	Length (aa):126
Purity:	> 95 % by SDS-PAGE

Target Details

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

Target Details

Background: Podoplanin, also known as glycoprotein 38 (gp38), PA2.26 antigen, T1alpha (T1A), and aggrus, is a 38 kDa type I transmembrane sialoglycoprotein and member of the podoplanin family. 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. The ECD contains abundant Ser/Thr residues as potential sites for Oglycosylation, and the cytoplasmic region contains putative sites for kinase C and cAMP phosphorylation. Mouse Podoplanin shares 77% and 46 % aa sequence identity with rat and human Podoplanin, respectively. Podoplanin is expressed on glomerular epithelial cells (podocytes), type I lung alveolar cells, lymphatic endothelial cells, and on 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 Ctype lectin like receptor 2 (CLEC2). Their association is dependent on sialic acid on Oglycans of Podoplanin. Through its association with CLEC2, Podoplanin induces platelet aggregation and tumor metastasis. Podoplanin is also necessary for lymphatic vessel formation, normal lung cell proliferation and alveolus formation at birth.

Synonyms: Pdpn, T1a, Gp38, OTS-8, T1alpha, RANDAM-2, T1-alpha

Gene ID: 14726

NCBI Accession: [NM_010329](#), [NP_034459](#)

UniProt: [Q62011](#)

Pathways: [Dicarboxylic Acid Transport](#)

Application Details

Comment: Soluble Receptors

Restrictions: For Research Use only

Handling

Format: Lyophilized

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

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.