

Recombinant Human Podoplanin (Fragment)

Cat. No. PDPN-956H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human podoplanin (Fragment) produced in <i>E.coli</i> started with GLST and ends with GLST. MW=25 kDa.
Species	Human
Source	<i>E.coli</i>
Description	Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1-alpha (T1A), and aggrus, is a 36kDa 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.

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Purity	>95%by SDS-PAGE and visualised by silver stain.
Endotoxin level	<0.1ng/μg ofPodoplanin.
Stabilizer	None.
Buffer	PBS
Formulation	Lyophilized.
Reconstitution	We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-1.0mg/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.
Stability	The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20°C. Reconstituted Podoplanin should be stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	PDPN podoplanin [Homo sapiens]
Synonyms	PDPN; podoplanin; T1A; GP36; GP40; Gp38; OTS8; T1A-2; AGGRUS; HT1A-1; PA2.26; lung type-I cell membrane-associated glycoprotein; hT1alpha-1; hT1alpha-2; OTTHUMP00000009640; OTTHUMP00000044504; glycoprotein, 36-KD; lung type I cell membrane associated glycoprotein; lung type-I cell membrane-associated glycoprotein (T1A-2); aggrus; PA2.26; Glycoprotein 36; PA2.26 antigen; T1-alpha; Aggrus; T1-alpha; lung type-I cell membrane-associated glycoprotein
Gene ID	10630

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mRNA Refseq	NM_001006624
Protein Refseq	NP_001006625
MIM	608863
UniProt ID	Q86YL7
Chromosome Location	1p36.21
Function	NOT amino acid transmembrane transporter activity; NOT folic acid transporter activity; NOT water channel activity

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