ACTIVE BIOSCIENCE
PROTEINS · CELLS · ANTIBODIES

Human Podoplanin soluble, his-tag

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

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	4059.950.005		

Please enquire for bulk quantities and other vial sizes

Description

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.

- **Source** *E. Coli*
- **Purity** ≥ 95 % (SDS-PAGE, silver stained)

Biological Activity

Testing in progress.

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.

Amino Acid Sequence

GSSHHHHHHS SGLVPRGSHM EGASTGQPED DTETTGLEGV AMPGAEDDVV TPGTSEDRYK SGLTTLVATS VNSVTGIRIE DLPTSESTVH AQEQSPSATA SNVATSHsTE KVDGDTQTTV EKDGLST

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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