

## Rat Podoplanin soluble, his-tag

Synonyms: Pdpn, E11, Gp38, OTS-8, RTI40, T1-alpha

**PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING**

Size	Order #	Lot #	Expiry Date
5 µg	4059.970.005		

Please enquire for bulk quantities and other vial sizes

### Description

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. Murine 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.

- **Source** *E. Coli*
- **Purity** ≥ 98 % (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

GAIGALEDDL VTPGPGDDMV NPGLEDRIET TDTTGELDKS TAKAPLVPTQ PPIEELPTSG TSDHDHKEHE  
STTTVKAVTS HSTDKKTTHP NRDNAGGETQ TTDKKGDLAV VTLEHHHHHH

**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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