

Podoplanin, soluble Active Protein | Pdpn active protein

Rat Podoplanin, soluble

CATALOG # AAA79303	HOST E Coli	REACTIVITY Rat
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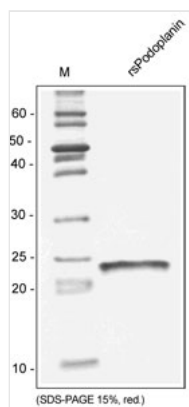
PRODUCT SYNONYMS

Podoplanin; soluble; Rat Podoplanin; Recombinant Rat soluble Podoplanin; Gp38; Glycoprotein 38; Ots8; T1-alpha; Pdpn active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Rat
Purity/Purification	> 98% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	GAIGALEDDL VTPGPGDDMV NPGLEDRIET TDTTGELDKS TAKAPLVPTQ PPIEELPTSG TSDHDHKEHE STTTVKAVTS HSTDKKTTHP NRDNAGGETQ TTDKKDGLAV VTLEHHHHHH
Sequence Length	120
N Terminal Sequence	GAIGALED
Buffer	0.5x PBS
Biological Activity	Not tested so far.
Preparation and Storage	Stability: The lyophilized protein is stable for a few weeks at room temperature, but best stored at –20 degree C. Reconstituted soluble Podoplanin should be stored in working aliquots at –20 degree C. 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 degree C for 1 week or -20 degree C for future use. Avoid freeze/thaw cycles.

IMAGES



Application Data

SDS-PAGE analysis of recombinant rat soluble Podoplanin. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Silver stain.

ADDITIONAL INFORMATION

Related Product Information for Pdpn active protein	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.
Product Categories/Family for Pdpn active protein	Soluble receptors
References	1. Zimmer et al, Biochem J 341:277, 1999 2. Katsuelnoue et al, J Biol Chem 282:25993, 2007 3. Kato et al, J Biol Chem 278:51599, 2003 4. Schacht et al, Am J Pathol 166:913, 2005 5. Breiteneder-Geleff et al, Am J Pathol 151:1141, 1997 6. Kato et al, Tumour Biol 26:195, 2005 7. Kato et al, Oncogene 23:8552, 2004 8. Mishima et al, Acta Neuropathol 111:563, 2006 9. Mishima et al, Acta Neuropathol 111:483, 2006 10. Kato et al, Biochem Biophys Res Commun 349:1301, 2006

NCBI AND UNIPROT INFORMATION

NCBI GI #	9506743
NCBI GeneID	54320
NCBI Accession #	NP_062231.1
NCBI GenBank Nucleotide #	NM_019358.1
UniProt Accession #	Q64294 ; O08731 ; O55210
Molecular Weight	12,8 kDa
NCBI Official Full Name	podoplanin
NCBI Official Synonym Full Names	podoplanin
NCBI Official Symbol	Pdpn
NCBI Official Synonym Symbols	E11; Gp38; OTS-8; RTI40; T1-alpha
NCBI Protein Information	podoplanin; T1A; RTI140; glycoprotein 38; E11 antigen epitope; type I cell 40 kDa protein; epithelial cell surface transmembrane protein antigen; pulmonary type I alveolar epithelial cell transmembrane differentiation marker
UniProt Protein Name	Podoplanin
UniProt Gene Name	Pdpn
UniProt Synonym Gene Names	Gp38; Ots8; Gp38; T1A
UniProt Entry Name	PDPN_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.