

Product datasheet for **MC225986**

Pdpn (NM_001290822) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pdpn (NM_001290822) Mouse Untagged Clone
Tag: Tag Free
Symbol: Pdpn
Synonyms: Gp38; OTS-8; RANDAM-2; T1-alpha; T1a; T1alpha
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC225986 representing NM_001290822
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGACCGTGCCAGTGTGTTCTGGGTTTTGGGAGCGTTTGGTTCTGGGACTCTGCCAGGGAGGGA
 CTATAGGCGTGAATGAAGATGATATTGTGACCCAGGTACAGGAGACGGCATGGTCCCCCAGGTATAGA
 AGACAAAATAACAACCACAGGTGCTACTGGAGGGCTTAATGAATCTACTGGCAAGGCACCTCTGGTACCA
 ACGCAGAGAGAGCGTGGGACGAAGCCTCCCTTAGAGGAACTGTCCACCTCAGCAACCTCAGACCATGATC
 ACAGAGAACACGAGAGTACAACCACTGTCAAAGTGGTACTAGCCACTCTGTGGACAAGAAAACAAGTCA
 CCCAATAGAGATGGCTTGCCAGTAGTCACCCTGGTTGGAATCATAGTTGGCGTCTGTAGCCATTGGC
 TTCGTCGGAGGGATCTTCATTGTTGTTATGAAGAAGATTTCTGGAAGGTTCTCGCC**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI
ACCN: NM_001290822
Insert Size: 480 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001290822.1</u> , <u>NP_001277751.1</u>
RefSeq Size:	1800 bp
RefSeq ORF:	480 bp
Locus ID:	14726
UniProt ID:	<u>Q62011</u>
Cytogenetics:	4 E1

Gene Summary:

Mediates effects on cell migration and adhesion through its different partners. During development plays a role in blood and lymphatic vessels separation by binding CLEC1B, triggering CLEC1B activation in platelets and leading to platelet activation and/or aggregation (PubMed:14522983, PubMed:15231832, PubMed:20110424, PubMed:17616532). Interaction with CD9, on the contrary, attenuates platelet aggregation and pulmonary metastasis induced by PDPN. Mediates effects on cell migration and adhesion through its different partners. Through MSN or EZR interaction promotes epithelial-mesenchymal transition (EMT) leading to ERZ phosphorylation and triggering RHOA activation leading to cell migration increase and invasiveness. Interaction with CD44 promotes directional cell migration in epithelial and tumor cells (By similarity). In lymph nodes (LNs), controls fibroblastic reticular cells (FRCs) adhesion to the extracellular matrix (ECM) and contraction of the actomyosin by maintaining ERM proteins (EZR; MSN and RDX) and MYL9 activation through association with unknown transmembrane proteins. Engagement of CLEC1B by PDPN promotes FRCs relaxation by blocking lateral membrane interactions leading to reduction of ERM proteins (EZR; MSN and RDX) and MYL9 activation (PubMed:25347465). Through binding with LGALS8 may participate to connection of the lymphatic endothelium to the surrounding extracellular matrix (By similarity). In keratinocytes, induces changes in cell morphology showing an elongated shape, numerous membrane protrusions, major reorganization of the actin cytoskeleton, increased motility and decreased cell adhesion (PubMed:10574709). Controls invadopodia stability and maturation leading to efficient degradation of the extracellular matrix (ECM) in tumor cells through modulation of RHOC activity in order to activate ROCK1/ROCK2 and LIMK1/LIMK2 and inactivation of CFL1 (By similarity). Required for normal lung cell proliferation and alveolus formation at birth (PubMed:12654292). Does not function as a water channel or as a regulator of aquaporin-type water channels (By similarity). Does not have any effect on folic acid or amino acid transport (PubMed:12032185).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 3' coding region, compared to variant 1. It encodes isoform 2, which is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.