

## Product datasheet for MC227397

### Dmtn (NM\_001252664) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dmtn (NM_001252664) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dmtn
Synonyms:	AI325486; dematin; Epb4.9; Epb49
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC227397 representing NM_001252664 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGAACGCTGTCAGAAGGCCAAGATGGACAACCAGGTGTTGGGCTACAAGGATCTGGCTGCCATCCCCA  
AGGACAAGGCCATCCTGGACATTGAGCGACCTGACCTCATGATCTATGAGCCCCACTTTACCTATTCCCT  
CCTGGAACATGTAGAGCTGCCAGAAGCCGGGAGTGCTCACTGTCACCCAAATCCACATCCCCCCCACCG  
TCTCCAGAGGTGTGGCGGAGAGCCGACTCTTGAATCATCTCTCAGGCTTCAACCCCAAGGACCACAG  
GGACCCCAAGGACCAGCCTGCCCACTTCCACCACCTGAGACTACCCGCCCGGATTCCAACATCTACAA  
GAAGCCACCCATCTACAAACAGAGAGAATCCGTGGGAGGCAGCCCTCAGAGCAAGCACCTCATCGAGGAC  
CTCATCATCGAATCCTCCAAGTTTCTGTCAGCGCAGCCCTGACCCCAACCAGCCAGCCAAGATAGAGA  
CTGACTACTGGCCATGTCCCCCGTCGCTGGCCGTTGTGGAGACAGAATGGAGGAAACGGAAGGCATCTCG  
AAAGGGGGCAGAGGAAGAGGAGGAAGAGGAAGACGATGACTCTGAAGAGGAGATTAAGGCCATCAGGGAA  
CGGCAGAAAGAGGAGCTCAGTAAGGTTACTTCCAATTGGGAAAGATGATCTTGAAGAAGAGATGGAAA  
AGTCATTGCCCATCCGGAGGAAAACACGCTCTCTGCTGACCGGACACCTTCCATACCTCCTTGCATT  
GGGAACATCTAAATCCTTCTCGCTTCTTCTATGGCAGGACACCTGAGCCGGCTACAGTCCACAGAA  
TTCAGCCCATCGGAAGTGAGGCTGGGAGCCAGGCCTGCAGAACGGAGAGGGCCAGAGGGGGAGGATGG  
ATCGGGGGAACCTCCCTGCCCTGTGTGCTGGAGCAGAAGATCTATCCCTATGAGATGCTGGTGGTGACCAA  
TAAGGGGAGAATAAGCTGCCTCCGGGTGTGGACCGCATGAGGCTTGAGAGGCATTTGTACGACAGAGGAC  
TTCTCTAGGGTCTTCGCCATGTCTCCCGAGGAGTTGGCAAGCTGGCCCTGTGGAAGCGGAACGAACCTTA  
AGAAGAAAGCTTCCCTCTT**GA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA


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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_001252664
<b>Insert Size:</b>	1143 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001252664.1, NP_001239593.1</u>
<b>RefSeq Size:</b>	4086 bp
<b>RefSeq ORF:</b>	1143 bp
<b>Locus ID:</b>	13829
<b>UniProt ID:</b>	<u>Q9WV69</u>
<b>Cytogenetics:</b>	14 36.32 cM

**Gene Summary:**

Membrane-cytoskeleton-associated protein with F-actin-binding activity that induces F-actin bundles formation and stabilization. Its F-actin-bundling activity is reversibly regulated upon its phosphorylation by the cAMP-dependent protein kinase A (PKA). Binds to the erythrocyte membrane glucose transporter-1 SLC2A1/GLUT1, and hence stabilizes and attaches the spectrin-actin network to the erythrocytic plasma membrane. Plays a role in maintaining the functional integrity of PKA-activated erythrocyte shape and the membrane mechanical properties. Plays also a role as a modulator of actin dynamics in fibroblasts; acts as negative regulator of the RhoA activation pathway. In platelets, functions as a regulator of internal calcium mobilization across the dense tubular system that affects platelet granule secretion pathways and aggregation. Also required for the formation of a diverse set of cell protrusions, such as filopodia and lamellipodia, necessary for platelet cell spreading, motility and migration. Acts as a tumor suppressor and inhibits malignant cell transformation.

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (4) differs in the 5' UTR and lacks an in-frame coding exon in the 5' region, compared to variant 1. The resulting isoform (3) lacks an internal segment, compared to isoform 1. Variants 4, 11 and 12 encode the same isoform (3).