

## Product datasheet for **MC229506**

### Dctn1 (NM\_001198867) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dctn1 (NM\_001198867) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Dctn1  
**Synonyms:** AL022633; DAP-150; DP-150; Glued; p150; p150-glued; p150  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC229506 representing NM\_001198867  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGTACGGAGGCAAGCGCCCGCCCTGCGGGTTGGCTCCCGCTGGAGGTGATTGGGAAGGGCCACC  
 GAGGCACTGTGGCTATGTTGGAGCCACTCTTTGCCACTGGCAAATGGGTGGGCGTGATTCTGGATGA  
 AGCAAAAGGCAAAAATGATGGCACTGTCCAGGGAAGGAAGTATTTACATGTGATGAAGGCCACGGCATC  
 TTTGTACGCCAGTCCCAGATCCAAGTATTTGAAGATGGAGCAGATACTACTTCCCAGAGACTCCTGATT  
 TTCTGCTTCAAAGGTCCCAAGAGAGAGGGAGCCGATGCAGCTGCAAAGACCAGCAAATGCCTACTCG  
 CCCAGCCAGCACTGGGGTGGCTGGGCCAGTAGCTCCCTTGGCCCTCTGGCTCAGCGTCAGCCGGGAA  
 CTAAGCAGCAGTGAAGCCAGCACCCAGCTCAGACTCCGCTGGCAGCACCCATCATCCCCACACCCGGCC  
 TCACCTCTCCTGGAGCAGCACCCCACTTCCATCTCCCTTAAGGAAGAGGAAGGGCTGAGGGCTCAGGT  
 ACGGGACCTGGAGGAGAAGCTGGAGACCCTGCGCCTAAAACGCTCAGAAGACAAAGCAAAGCTGAAAAG  
 CTGGAGAAGCACAAAGATCCAGCTGGAGCAGGTGCAGGAATGGAAGAGCAAAATGCAGGAGCAGCAGGCAG  
 ACCTGCAGCGGCCCTCAAGGAGGCTCGAAGGAAGCCAAGGAGGCGCTAGAGGCAAAGGAACGCTACAT  
 GGAGGAGATGGCCGACACAGCCGACGCTATCGAGATGGCCACTCTGGACAAGGAGATGGCTGAAGAGCGC  
 GCTGAGTCTCTGCAGCAAGAGGTGGAGGCACTGAAGGAACGGGTAGACGAGCTCACACAGACTGGAGA  
 TTCTCAAGGCTGAAATCGAAGAGAAAGGCTCTGATGGGGCCGATCAAGTACCAGCTCAAGCAGCTGGA  
 GGAGCAGAATGCCCGCTGAAGGATGCCCTGGTGGAGTGCAGAGACTCTTTCTCAGAGAAGCAGGAG  
 CACGTGAAGCTGCAGAACTCATGGAAGAAAAACCAGGAGCTGGAGGTCGTGCGGCAGCAGCGCGAGC  
 GTCTTCAGGAGGAGCTGAGCCAGGCTGAGAGCACCATCGATGAGCTCAAAGAGCAGGTGGACGCCGCTCT  
 GGGAGCCGAGGAGATGGTGGAGATGCTGACCGACCGAACCTGAATCTAGAGGAGAAAGTCCGGGAGTTA  
 CGGAGACTGTGGGGACTTGAAGCCATGAACGAGATGAACGATGAGCTGCAGGAGAACGCACGGGAGA  
 CGGAGCTGGAACCTCCGAGAGCAGCTGGACATGGCGGGCGCCGAGTGAGGGAAGCCAGAAAGCAGTGGA  
 AGCCGCCAGGAGACAGTCGCCGACTACCAGCAGACCATCAAGAAGTACCGCCAGTTGACTGCCACCTA  
 CAGGATGTCAATCGGGAGCTGACAAACCAGCAGGAAGCGTCTGTAGAGAGGCAGCAGCAGCCGCCAG



AGACTTTTGATTTCAAAATCAAGTTTGCTGAGACCAAGGCTCATGCCAAGGCCATTGAGATGGAGTTGAG  
 ACAGATGGAAGTTGCCAGGCCAACCGGCACATGTCCCTGCTGACAGCCTTTATGCCTGACAGCTTCCTT  
 CGGCCAGGTGGAGACCAGACTGTGTCTGGTGTCTGCTCATGCCCCGACTCATTGCAAGGCAGAGC  
 TCATCCGAAGCAGGCCAGGAGAAGTTGACCTGAGCGAGAAGTGTTCGGAGCGGCCCGGGCTGCCGGG  
 AGCTGCCGGGGAGCAGCTGAGCTTTGCTGCTGGACTGGTGTACTCGTGAGTCTGCTGCAGGCCACGCTG  
 CACCGCTATGAGCATGCCCTCTCTCAGTGCAGTGTGGACGTGTATAAGAAGTTCGGCAGCCTGTACCCCG  
 AGATGAGCGCCACGAGCGCTCCTTAGATTTCTCATTGAGCTGCTGCACAAGGATCAGCTGGATGAGAC  
 TGTCAACGTGGAGCCCTCACCAAGGCCATCAAGTATTACCAGCATCTGTACAGCATCCACCTCGCTGAA  
 CAACCCGAGGACTCCACCATGCAGCTGGCTGACCACATCAAGTTCACCCAGAGTGCCTGGACTGCATGG  
 GCGTGGAGGTGGGGCGGCTGCGTGCCTTCTGACAGGTGGGCAGGAGGCAACAGATATTGCCCTTCTTCT  
 CCGAGACCTGGAAACATCATGTAGTGACACCCGTCAGTTCTGCAAGAAGATCCGAAGGGGATGCCGGG  
 ACGGATGCTCCTGGGATCCAGCAGCGCTGGCCTTTGGCTCACAGGTATCCGACACACTCCTGGACTGCA  
 GGAAGCACTTGACGTGGTGGTAGCTGTCTGCAGGAGTGGCAGCTGCAGCCGCCAGCTTATTGCCCC  
 CTTGGCAGAGAACGAGGGGCTGCCTGTGGCTGCACTGGAGGAGCTGGCCTTCAAAGCAAGCGAGCAGATC  
 TACGGGAGCCCTCCAGCAGCCCTATGAGTGTCTACGCCAGTCATGCACCATCCTCATCAGCACGATGA  
 ACAAGCTGGCCACAGCCATGCAAGAAGCGAGTATGACGCAGAGCGACCCCGAGCAAGCCTCCTCCGGT  
 TGAACCTCGGGCTGCAGCCCTGCGTGCAGAGATCACAGATGCTGAAGGTCTGGGTTTGAAGCTTGAGGAT  
 CGAGAGACAGTTATCAAGGAGTTAAAGAAGTCACTCAAGATTAAGGGAGAGGAGCTGAGTGAGGCCAACG  
 TGCGGCTCAGCCTCCTGGAGAAGAAGTTGGACAGCGCTGCCAAGGATGCAGACGAGCGAATCGAGAAAGT  
 TCAGACACGGCTGGACGAGACTCAGACCCTGCTGCGGAAGAAGGAGAAAGACTTTGAGGAGACAATGGAC  
 GCACTCCAGGCTGACATCGACCAGCTGGAGGCAGAGAAGGCAGAGCTCAAGCAGCGCCTGAACAGCCAGT  
 CCAAGCGCACAATCGAGGGGCTCCGGGGCCCCCTCCGTCAGGCATCGTACCCTGGTCTCTGGCATCGC  
 TGGTGGGGCGCTCCTGGCAGGCTCCGGGCGCCTTCCAGGCGGGGCTGGTGAAGGACTCCCCACTG  
 CTGCTTACAGCAGATCTGCTATGAGGCTACACATCTCTCAGCTCCAGCATGAGAACAGCATCCTCAGAG  
 GAGCCAGATGAAGCGTCTTGGCAGCTCTGCCCTCTGCATGTTGCAAGCTTTCCCTCCCACCCCA  
 TGAGGGCCCCGGTGGTAACCTAGTGGTGGGGCACTGTACCGCAAGACCAGCCAGCTCCTGGAGAACTA  
 AACCGCTGAGTACCCACACCCAGTGGTGGATATCACTCGGAGCAGCCAGCTGCCAAGAGCCCGTCAG  
 CTCAGCTTATGGAACAAGTGGCTCAGCTCAAGTCCCTGAGTGACACCATTGAGAAGCTCAAGGATGAGGT  
 CCTCAAGGAGACAGTACTCAGCGCCCTGGAGCCACTGTGCCACCGACTTTGCCACTTCCCTTTCATCT  
 GCCTTCTCAGGGCCAAGGAAGAGCAGCAAGATGACACAGTCTACATGGGCAAAGTGACCTTTTCATGCG  
 CGGCAGGCTAGGACAGCGACACCGCTGGTGTGACCCAGGAGCAGCTGCACCAGCTTACAGTGCCT  
 CATCTCCTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001198867
- Insert Size:** 3720 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).
- 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:**

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:** [NM\\_001198867.1](#), [NP\\_001185796.1](#)

**RefSeq Size:** 4172 bp

**RefSeq ORF:** 3720 bp

**Locus ID:** 13191

**Cytogenetics:** 6 35.94 cM

**Gene Summary:** Plays a key role in dynein-mediated retrograde transport of vesicles and organelles along microtubules by recruiting and tethering dynein to microtubules. Binds to both dynein and microtubules providing a link between specific cargos, microtubules and dynein. Essential for targeting dynein to microtubule plus ends, recruiting dynein to membranous cargos and enhancing dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Can also act as a brake to slow the dynein motor during motility along the microtubule. Can regulate microtubule stability by promoting microtubule formation, nucleation and polymerization and by inhibiting microtubule catastrophe in neurons. Inhibits microtubule catastrophe by binding both to microtubules and to tubulin, leading to enhanced microtubule stability along the axon. Plays a role in metaphase spindle orientation. Plays a role in centriole cohesion and subdistal appendage organization and function. Its recruitment to the centriole in a KIF3A-dependent manner is essential for the maintenance of centriole cohesion and the formation of subdistal appendage. Also required for microtubule anchoring at the mother centriole. Plays a role in primary cilia formation. [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) differs in the 5' UTR, lacks multiple exons in the coding region, and uses an in-frame downstream start codon, compared to variant 1. Variant 3 encodes a protein (isoform 2) with a shorter N-terminus, compared to isoform 1.