

## Product datasheet for **MC223052**

### Dctn1 (BC066061) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dctn1 (BC066061) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Dctn1  
**Synonyms:** p150, Glued  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >BC066061  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTACGGAGGCAAGCGCCCGCCCTGCGGGTTGGCTCCCGCTGGAGGTGATTGGGAAGGGCCACC  
 GAGGCACTGTGGCTATGTTGGAGCCACTCTTTGCCACTGGCAAATGGGTGGGCGTGATTCTGGATGA  
 AGCAAAAGGCAAAAATGATGGCACTGTCCAGGGAAGGAAGTATTTACATGTGATGAAGGCCACGGCATC  
 TTTGTACGCCAGTCCCAGATCCAAGTATTTGAAGATGGAGCAGATACTACTTCCCTAGAGACTCCTGATT  
 CTTCTGCTTCAAAGGTCTCAAGAGAGAGGGAGCCGATGCAGCTGCAAAGACCAGCAAATGCGGGGACT  
 GAAGCCTAAGAAGGCACCGACAGCCGAAAGACCACAACCTCGACGGCCCAAGCCTACTCGCCAGCCAGC  
 ACTGGGGTGGCTGGGCCAGTAGCTCCCTTGGCCCTCTGGCTCAGCGTCAGCCGGGAACTAAGCAGCA  
 GTGAGCCAGCACCCAGCTCAGACTCCGCTGGCAGCACCCATCATCCCCACCCGGCCCTCACCTCTCC  
 TGGAGCAGCACCCCACTTCCATCTCCCTTAAGGAAGAGGAAGGGCTGAGGGCTCAGGTACGGGACCTG  
 GAGGAGAAGCTGGAGACCCTGCGCTAAAACGCTCAGAAGACAAGCAAAGCTGAAAGAGCTGGAGAAGC  
 ACAAGATCCAGCTGGAGCAGGTGCAGAAATGGAAGAGCAAAAATGCAGGAGCAGCAGCACCTGCAGCG  
 GCGCCTCAAGGAGCTCGGAAGGAAGCCAAGGAGGCGCTAGAGGCAAAGGAACGCTACATGGAGGAGATG  
 GCCGACACAGCCGACGCTATCGAGATGGCCACTCTGGACAAGGAGATGGCTGAAGAGCGCGCTGAGTCTC  
 TGCAGCAAGAGGTGGAGGCACTGAAGGAACGGGTAGACGAGCTCACACAGACCTGGAGATTCTCAAGGC  
 TGAAATCGAAGAGAAAGGCTCTGATGGGCGCATCAAGCTACCAGCTCAAGCAGCTGGAGGAGCAGAAT  
 GCCCGCTGAAGGATGCCCTGGTGGATGCGAGACCTCTTCTCCTCAGAGAAGCAGGAGCACGTGAAGC  
 TGCAGAAACTCATGAAAAGAAAACCAGGAGCTGGAGGTCGTGCGGCAGCAGCGCAGCGTCTTCAGGA  
 GGAGCTGAGCCAGGCTGAGAGCACCATCGATGAGCTCAAAGAGCAGGTGGACGCCCTCTGGGAGCCGAG  
 GAGATGGTGGAGATGCTGACCGACCGAACCTGAATCTAGAGGAGAAAGTGCAGGAGTTACGGGAGACTG  
 TGGGGGACTTGAAGCCATGAACGAGATGAACGATGAGCTGCAGGAGAACGCACGGGAGACGGAGCTGGA  
 ACTCCGAGAGCAGCTGGACATGGCGGGCCCGAGTGAGGGAAGCGCAGAAGCGAGTGGAAGCCGCCAG  
 GAGACAGTCGCCGACTACCAGCAGACCATCAAGAAGTACCGCCAGTTGACTGCCACCTACAGGATGTCA



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ATCGGGAGCTGACAAACCAGCAGGAAGCGTCTGTAGAGAGGCAGCAGCAGCCGCCAGAGACTTTTGA  
 TTTCAAAATCAAGTTTGGCTGAGACCAAGGCTCATGCCAAGGCCATTGAGATGGAGTTGAGACAGATGGAA  
 GTTGCCCAGGCCAACCGGCACATGTCCCTGCTGACAGCCTTTATGCCTGACAGCTTCCTTCGGCCAGGTG  
 GAGACCACGACTGTGCTCCTGGTGTGCTGCTCATGCCCCGACTCATTGCAAGGCAGAGCTCATCCGGAA  
 GCAGGCCCAGGAGAAGTTTGACCTGAGCGAGAAGTGTTCGGAGCGGCCCGGGCTGCGGGGAGCTGCCGGG  
 GAGCAGCTGAGCTTTGCTGCTGGACTGGTGTACTCGTGAGTCTGCTGCAGGCCACGCTGCACCCGCTATG  
 AGCATGCCCTCTCTCAGTGCAGTGTGGACGTGTATAAGAAGGTCGGCAGCCTGTACCCCGAGATGAGCGC  
 CCACGAGCGCTCCTTAGATTTCCCTATTGAGCTGCTGCACAAGGATCAGCTGGATGAGACTGTCAACGTG  
 GAGCCCCACCAAGGCCATCAAGTATTACCAGCATCTGTACAGCATCCACCTCGCTGAACAACCCGAGG  
 ACTCCACCATGCAGCTGGCTGACCACATCAAGTTCACCCAGAGTGCCCTGGACTGCATGGGCGTGGAGGT  
 GGGGCGGTGCGTGCCTTCTTGCAAGGTGGGCAGGAGGCAACAGATATTGCCCTTCTTCTCCGAGACCTG  
 GAAACATCATGTAGTGACACCCGTCAGTTCTGCAAGAAGATCCGAAGGCGGATGCCGGGGACGGATGCTC  
 CTGGGATCCCAGCAGCGCTGGCCTTTGGCTCACAGGTATCCGACACACTCTGGACTGCAGGAAGCACTT  
 GACGTGGTGGTAGCTGTTCTGCAGGAGGTGGCAGCTGCAGCCGCCAGCTTATTGCCCTTGGCAGAG  
 AACGAGGGGCTGCCTGTGGCTGCACTGGAGGAGCTGGCCTTCAAAGCAAGCGAGCAGATCTACGGGAGCC  
 CCTCCAGCAGCCCTATGAGTGTCTACGCCAGTATGCACCATCCTCATCAGCAGATGAACAAGCTGGC  
 CACAGCCATGCAAGAAGGCGAGTATGACGCAGAGCGACCCCGAGCAAGCCTCCTCCGGTTGAACCTCGG  
 GCTGCAGCCCTGCGTGCAGAGATCACAGATGCTGAAGGTCTGGGTTTGAAGCTTGAGGATCGAGAGACAG  
 TTATCAAGGAGTTAAGAAGTCACTCAAGTAAAGGGAGAGGAGCTGAGTGAGGCCAACGTGCGGCTCAG  
 CCTCCTGGAGAAGAAGTTGGACAGCGCTGCCAAGGATGCAGACGAGCGAATCGAGAAAGTTCAGACACGG  
 CTGGACGAGACTCAGACCCTGCTGCGGAAGAAGGAGAAAGACTTTGAGGAGACAATGGACGCACTCCAGG  
 CTGACATCGACCAGCTGGAGGCAGAGAAGGCAGAGCTCAAGCAGCGCCTGAACAGCCAGTCCAAGCGCAC  
 AATCGAGGGGCTCCGGGGCCCCCTCCGTACGGCATCGTACCCTGGTCTCTGGCATCGTGGTGAGGAA  
 CCACAGCGAGGGGCGCTCCTGGGCAGGCTCCGGGCGCCTTGCCAGGCCCGGGGCTGGTGAAGGACTCCC  
 CACTGCTGCTTACGACAGATCTCTGCTATGAGGCTACACATCTCTCAGCTCCAGCATGAGAACAGCATCCT  
 CAGAGGAGCCCAGATGAAGGCGTCTTGGCAGCTGCCCCCTCTGCATGTTGCAAAGCTTTCCTCCCA  
 CCCATGAGGGCCCCGGTGGTAACCTAGTGGTGGGCACTGTACCGCAAGACCAGCCAGCTCCTGGAGA  
 AACTAAACCAGCTGAGTACCCACACCCACGTGGTGGATATCACTCGGAGCAGCCAGCTGCCAAGAGCCC  
 GTCAGCTCAGCTTATGGAACAAGTGGCTCAGCTCAAGTCCCTGAGTGACACCATTGAGAAGCTCAAGGAT  
 GAGGTCTCAAGGAGACAGTACTCAGCGCCCTGGAGCCACTGTGCCACCGACTTGGCACTTTCCTT  
 CATCTGCCTTCTCAGGGCCAAGGAAGAGCAGCAAGATGACACAGTCTACATGGGCAAGTGACCTTTTC  
 ATGCGCGGCGAGGCTAGGACAGCGACACCGCCTGGTGTGACCCAGGAGCAGCTGCACCAGCTTCACAGT  
 CGCCTCATCTCCTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul  
 ACCN: BC066061  
 Insert Size: 3795 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**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:** [BC066061](#), [AAH66061](#)

**RefSeq Size:** 4220 bp

**RefSeq ORF:** 3794 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]