

## Product datasheet for MR231717

### Dctn1 (NM\_001198867) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dctn1 (NM_001198867) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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
ORF Nucleotide Sequence:	>MR231717 representing NM_001198867 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
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ATGAGTACGGAGGCAAGCGCCCGCCCTGCGGGTTGGCTCCCGCTGGAGGTGATTGGGAAGGGCCACC  
GAGGCACTGTGGCTATGTTGGAGCCACTCTTTGCCACTGGCAAATGGGTGGGCGTGATTCTGGATGA  
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CCCAGCCAGCACTGGGGTGGCTGGGCCCAGTAGCTCCCTTGGCCCTCTGGCTCAGCGTCAGCCGGGAA  
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AGACTTTTGATTTCAAAATCAAGTTTGCTGAGACCAAGGCTCATGCCAAGGCCATTGAGATGGAGTTGAG  
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GAGCCAGATGAAGGCGTCTTGGCAGCTCTGCCCTCTGCATGTTGCAAAGCTTTCCTCCCACCCCA  
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CATCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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Protein Sequence: >MR231717 representing NM\_001198867  
 Red=Cloning site Green=Tags(s)

MSTEASARPLRVGSRVEVIGKGRHRTVAYVGATLFATGKWWGVILDEAKGKNDGTVQGRKYFTCDEHGHI  
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 RETVIKELKKSLEKGEELSEANVRLSLEKKLDSAAKDADERIEKVQTRLDETQTLRKKKEDFEETMD  
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 LLQQISAMRLHISQLQHENSILRGAQMKASLAALPPLHVAKLSLPPHEGPGGNLVAGALYRKTSLLEKL  
 NQLSTHVVVDITRSPAAKSPSAQLMEQAQLKSLSDTIEKLDKDEVLKETVTQRPATVPTDFATFPSS  
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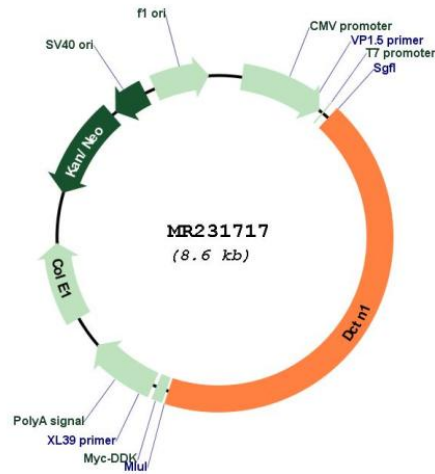
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_001198867

**ORF Size:** 3717 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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

**MW:** 137.3 kDa

**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]