

Product datasheet for **MG222193**

Dctn1 (NM_007835) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dctn1 (NM_007835) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dctn1
Synonyms:	AL022633; DAP-150; DP-150; Glued; p150; p150-glued; p150
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222193 representing NM_007835 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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GAACGAGATGAACGATGAGCTGCAGGAGAACGCACGGGAGACGGAGCTGGAACCTCGAGAGCAGCTGGAC



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Protein Sequence: >MG222193 representing NM_007835
 Red=Cloning site Green=Tags(s)

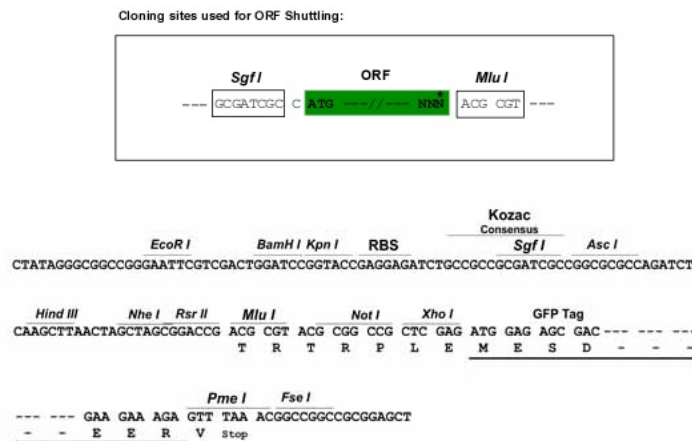
MAQSRRHMSRTPSGSRMSTEASARPLRVGSRVEVIGKGRGTVAIVYGATLFATGKWWGVILDEAKGKND
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 DSAAKDADERIEKVQTRLDETQTL LRKKEKDFEETMDALQADIDQLEAEKAEKQRLNSQSKRTIEGLRG
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 QVAQLKSLSDTIEKLDKDEV LK ETVTQRP GATVPTDFATFPSSAFLRAKEEQDDTVYMGKVTFS CAAGLG
 QRHRLVLTQEQLHQLHSRLIS

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja2026_d07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007835

ORF Size: 3843 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 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](#)

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_007835.2](#), [NP_031861.2](#)

RefSeq Size: 4437 bp

RefSeq ORF: 3846 bp

Locus ID: 13191

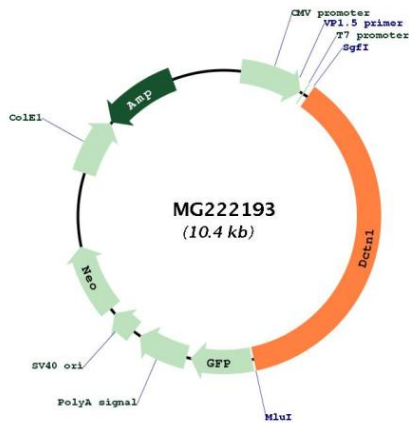
UniProt ID: [O08788](#)

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]

Product images:



Circular map for MG222193