

Product datasheet for **RG231480**

DCTN1 (NM_001190837) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DCTN1 (NM_001190837) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DCTN1
Synonyms:	DAP-150; DP-150; P135
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG231480 representing NM_001190837 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACAGACAAAGAGGCACGTGTACAGCCGGACGCCAGCGGCAGCAGGATGAGTGCGGAGGCAAGCG
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CAAAAGAGAGGGAAGTATACAAGTCAAAAGACTAGCAAAGTGGCACCGACAGCCGAAAGACCACAAGT
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GAGGCCAGAAAGCGTGTGGAGGCAGCCAGGAGACGGTTGCAGACTACCAGCAGACCATCAAGAAGTACC
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CAGCTGCACCAGCTTACAGTCGCTCATCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence: >RG231480 representing NM_001190837
 Red=Cloning site Green=Tags(s)

MAQSKRHVYSRTPSGSRMSAEASARPLRVGSRVEVIGKGRGTVAVVGATLFATGKWWGVILDEAKGKND
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 DERIEKVQTRLEETQALLRKKKEFEETMDALQADIDQLEAEKAEKQRLNSQSKRTIEGLRGGPPSGIA
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 PLHVAKLSHEGPGSEL PAGALYRKTSQLLETNLQLSTHVVVDITRTSPA AKSPSAQLMEQVAQLKSLSD
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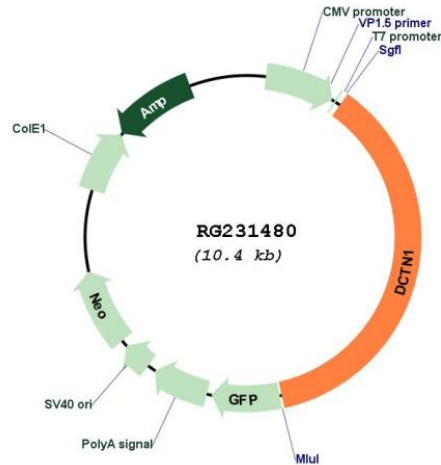
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001190837

ORF Size: 3813 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_001190837.2](#)

RefSeq Size: 4497 bp

RefSeq ORF: 3816 bp

Locus ID: 1639

UniProt ID: [Q14203](#)

Cytogenetics: 2p13.1

Protein Families: Druggable Genome

Protein Pathways: Huntington's disease

Gene Summary: This gene encodes the largest subunit of dynactin, a macromolecular complex consisting of 10 subunits ranging in size from 22 to 150 kD. Dynactin binds to both microtubules and cytoplasmic dynein. Dynactin is involved in a diverse array of cellular functions, including ER-to-Golgi transport, the centripetal movement of lysosomes and endosomes, spindle formation, chromosome movement, nuclear positioning, and axonogenesis. This subunit interacts with dynein intermediate chain by its domains directly binding to dynein and binds to microtubules via a highly conserved glycine-rich cytoskeleton-associated protein (CAP-Gly) domain in its N-terminus. Alternative splicing of this gene results in multiple transcript variants encoding distinct isoforms. Mutations in this gene cause distal hereditary motor neuropathy type VIIB (HMN7B) which is also known as distal spinal and bulbar muscular atrophy (dsBMA). [provided by RefSeq, Oct 2008]