

Product datasheet for **RC226342**

DCTN1 (NM_001135041) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DCTN1 (NM_001135041) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DCTN1
Synonyms:	DAP-150; DP-150; P135
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC226342 representing NM_001135041 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGATGAGACAGGCACCGACAGCCCGAAAGACCACAACCTGGCGACCCAAGCCCACGCGCCAGCCAGTA
CTGGGGTGGCTGGGGCCAGTAGCTCCCTGGGCCCTCTGGCTCAGCGTCAGCAGGTGAGCTGAGCAGCAG
TGAGCCCAGCACCCCGGCTCAGACTCCGCTGGCAGCACCCATCATCCCCACGCCGGTCTCACCTCTCCT
GGAGCAGTCCCCCGCTTCCCTTCCCATCCAAGGAGGAGGAGGGACTAAGGGCTCAGGTGCGGGACCTGG
AGGAGAACTAGAGACCCCTGAGACTGAAACGGGCAGAAGACAAAGCTAAAAGAGCTGGAGAAACA
CAAATCCAGCTGGAGCAGGTGCAGGAATGGAAGAGCAAATGCAGGAGCAGCAGGCCGACCTGCAGCGG
CGCCTCAAGGAGGCGAGAAAGGAAGCAAGGAGGCGCTGGAGGCAAAGGAACGCTATATGGAGGAGATGG
CTGATACTGTGATGCCATTGAGATGGCCACTTTGGACAAGGAGATGGCTGAAGAGCGGGCTGAGTCCCT
GCAGCAGGAGGTGGAGGCACTGAAGGAGCGGGTGGACGAGCTCACTACTGACTTAGAGATCCTCAAGGT
GAGATTGAAGAGAAGGGCTCAGATGGCGCTGCATCCAGTTATCAGCTCAAGCAGCTTGAGGAGCAGAATG
CCCGCTGAAGGATGCCCTGGTGGATGCGGGATCTTTCTTCCAGAGAAGCAGGAGCATGTGAAGT
CCAGAAGCTCATGAAAAGAAGAACCAAGAGCTGGAAGTTGTGAGGCAACAGCGGAGCGTCTGCAGGAG
GAGCTAAGCCAGGCAGAGAGCACCATTTGATGAGCTCAAGGAGCAGGTGGATGCTGCTCTGGTGGTGGAG
AGATGGTGGAGATGCTGACAGATCGGAACCTGAATCTGGAAGAGAAAGTGCAGGAGTTGAGGGAGACTGT
GGGAGACTTGAAGCGATGAATGAGATGAACGATGAGCTGCAGGAGAATGCACGTGAGACAGAACTGGAG
CTGCGGGAGCAGCTGGACATGGCAGGCGCGGGTTCTGAGGCCAGAAGCGTGTGGAGGCAGCCAGG
AGACGGTTGCAGACTACCAGCAGACCATCAAGAAGTACCGCCAGCTGACCGCCATCTACAGGATGTGAA
TCGGGAAGTACAAACCAGCAGGAAGCATCTGTGGAGAGGCAACAGCAGCCACCTCCAGAGACCTTTGAC
TTCAAATCAAGTTTGTGAGACTAAGGCCATGCCAAGGCAATTGAGATGGAATTGAGGCAGATGGAGG
TGCCCCAGGCCAATCGACACATGTCCCTGCTGACAGCCTTCATGCTGACAGCTTCTTCGCCAGGTGG
GGACCATGACTGCGTTCTGGTGTGTTGCTCATGCCTCGTCTCATTTGCAAGGCAGAGCTGATCCGGAAG
CAGGCCAGGAGAAGTTGAACTAAGTGAAGTGTTCAGAGCGGCCCTGGGCTGCGAGGAGCTGCTGGG



AGCAACTCAGCTTTGCTGCTGGACTGGTGTACTCGCTGAGCCTGCTGCAGGCCACGCTACACCGCTATGA
GCATGCCCTCTCTCAGTGCAGTGTGGATGTGTATAAGAAAGTGGGCAGCCTGTACCTGAGATGAGTGCC
CATGAGCGCTCCTTGGATTTCTCATTGAAGTGTGCACAAGGATCAGCTGGATGAGACTGTCAATGTGG
AGCCTCTACCAAGGCCATCAAGTACTATCAGCATCTGTACAGCATCCACCTGCCGACAGCCTGAGGA
CTGTACTATGCAGCTGGCTGACCACATTAAGTTCACGCAGAGTGTCTGGACTGCATGAGTGTGGAGGTA
GGACGGCTGCGTGCCTTCTTGCAGGGTGGGCAGGAGCTACAGATATTGCCCTCTGCTCCGGGATCTGG
AAACTTCATGCAGTGCATCCGCCAGTTCTGCAAGAAGATCCGAAGGCCAATGCCAGGGACAGATGCTCC
TGGGATCCAGCTGCACTGGCCTTTGGACCACAGGTATCTGACACGCTCCTAGACTGCAGGAAACACTTG
ACGTGGTCTGCTGCTGCTGCAGGAGGTGGCAGCTGCTGCTGCCAGCTCATTGCCCACTGGCAGAGA
ATGAGGGGCTACTTGTGGCTGCTCTGGAGAACTGGCTTTCAAAGCAAGCGAGCAGATCTATGGGACCC
CTCCAGCAGCCCTATGAGTGTCTGCGCCAGTCATGCAACATCCTCATCAGTACCATGAACAAGCTGGCC
ACAGCCATGCAGGAGGGGAGTATGATGCAGAGCGGCCCCAGCAAGCCTCCACCGTTGAACTGCGGG
CTGCTGCCCTTCGTGCAGAGATCACAGATGCTGAAGGCCTGGTTTGAAGCTCGAAGATCGAGAGACAGT
TATTAAGGAGTTGAAGAAGTCACTCAAGATTAAGGGAGAGGAGCTAAGTGAAGCCATGTGCGGCTGAGC
CTCCTGGAGAAGAAGTTGGACAGTGTGCAAGGATGCAGATGAGCGCATCGAGAAAGTCCAGACTCGGC
TGGAGGAGACCCAGCAGCTGCTGCGAAAGAAGGAGAAAGAGTTTGAAGGAGACAATGGATGCACTCCAGGC
TGACATCGACCAGCTGGAGGCAGAGAAGGCAGAACTAAAGCAGCGTCTGAACAGCCAGTCCAAACGCACG
ATTGAGGGACTCCGGGGCCCTCCTCTTCAGGCATTGCTACTCTGGTCTCTGGCATTGCTGGTGGAGCCA
TCCCTGGGCAGGCTCCAGGGTCTGTGCCAGGCCAGGGCTGGTGAAGGACTCACCCTGCTGCTTACGCA
GATCTCTGCCATGAGGCTGCACATCTCCAGCTCCAGCATGAGAACAGCATCCTCAAGGGAGCCAGATG
AAGGCATCCTTGGCATCCCTGCCCTCTGCATGTTGCAAAGCTATCCATGAGGGCCCTGGCAGTGAAGT
TACCAGTGGAGCGCTGTATCGTAAGACCAGCCAGCTGCTGGAGACATTGAATCAATTGAGCACACACAC
GCACGTAGTAGACATCACTCGCACCAGCCCTGCTGCCAAGAGCCCGTCCGCCCACTTATGGAGCAAGTG
GCTCAGCTTAAGTCCCTGAGTGACACCGTCCGAGAAAGCTCAAGGATGAGGTCTCAAGGAGACAGTATCTC
AGCGCCCTGGAGCCACAGTACCCACTGACTTTGCCACCTTCCCTTCATCAGCCTTCTCAGGCCAAAGGA
GGAGCAGCAGGATGACACAGTCTACATGGGCAAAGTGACCTTCTCATGTGCGGCTGGTTTTGGACAGCGA
CACCGGCTGGTGTGACCCAGGAGCAGCTGCACCAGCTTACAGTCGCCTCATCTCC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC226342 representing NM_001135041
Red=Cloning site Green=Tags(s)

MMRQAPTARKTTTRRPKPTRPASTGVAGASSSLGPSGSASAGELSSSEPSTPAQTPLAAPIIPTPVLTS
GAVPPLSPSKEEEGLRAQVRDLEEKLETLRLKRAEDKAKLKELEKHKIQLEQVQEWKSMQEQQADLQR
RLKEARKEAKEALEAKERMEEMADTADAIEMATLDKEMAEERAEESLQQEVEALKERVDELTTDLEILKA
EIEEKSDGAASSYQLKQLEEQNARLKDALVRMRDLSSSEKQEHVKLQKLEKKNQELEVVRQQRERLQE
ELSQAESTIDELKEQVDAALGAEEMVEMLTDRNLNLEEKVRELRETVGDLEAMNEMNDELQENARETELE
LREQLDMAGARVREAQKRVEAAQETVADYQQTICKYRQLTAHLQDVNREL TNQVEASVERQQPPPETFD
FKIKFAETKAHAKAIEMELRQMEVAQANRHMSLLTAFMPDSFLRPGGDHDCVLLVLLMPRLICKAELIRK
QAQEFELSENCSERPGLRGAAGEQLSFAAGLVYSLSLQATLHRYEHALSQCSVDVYKKGSLYPMSA
HERSLDFLIELLHKDQLDETNNVEPLTKAIKYYQHLYSIHLAEQPEDCTMQLADHIKFTQSALDCMSVEV
GRLRAFLQGGQEATDIALLLRDLETSCSDIRQFCKIRRRMPGTDAPGIPAALAFGPQVSDTLDDCRKHL
TAMQEGEYDAERPPSKPPPVELRAAALRAEITDAEGLGLKLEDRETVIKELKSLKIKGEELSEANVRLS
LLEKKLDSAAKDADERIEKVQTRLEETQALLRKKEFEFEETMDALQADIDQLEAEKAELKQRLNSQSKRT
IEGLRGPPPSGIATLVSGIAGGATPGQAPGSVPGPLVKDSPLLLQQISAMRLHISQLQHENSILKGAQM
KASLASLPLHVAKLSHEGPGSEL PAGALYRKTSQLLETLNQLSTHTHVVDITRTSPAASPSAQLMEQV
AQLKSLSDTVEKLDKDEVKQTVSQRPGATVPTDFATFPSSAFLRAKEEQDDTVYMGKVTFSCAAGFGQR
HRLVLTQEQLHQLHSRLIS

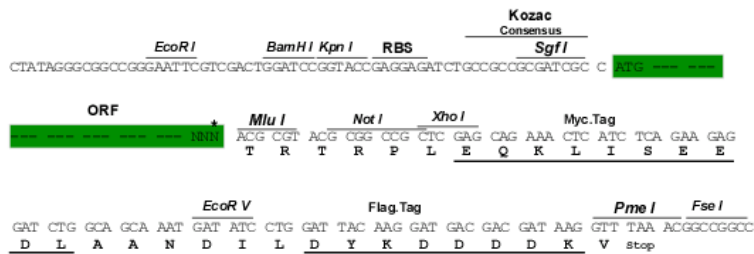
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

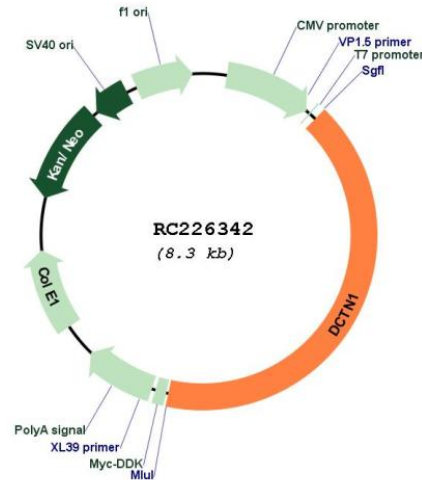
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001135041

ORF Size: 3417 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_001135041.3
RefSeq Size:	4166 bp
RefSeq ORF:	3420 bp
Locus ID:	1639
UniProt ID:	Q14203
Cytogenetics:	2p13.1
Protein Families:	Druggable Genome
Protein Pathways:	Huntington's disease
MW:	126.7 kDa
Gene Summary:	<p>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]</p>