

## Product datasheet for **RG232664**

### Dynamitin (DCTN2) (NM\_001261412) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dynamitin (DCTN2) (NM_001261412) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DCTN2
Synonyms:	DCTN50; DYNAMITIN; HEL-S-77; RBP50
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG232664 representing NM_001261412 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGACCCTAAATACGCCGACCTCCCGCATTGCCAGGAATGAGCCAGATGTTTATGAAACTAGCG  
ACCTACCTGAGGATGATCAAGCGGAGTTCGATGCGGAGCTGGAGGAGCTGACAAGCACAAGTGGAACA  
CATCATTGTCAATCCTAATGCTGCCTATGACAAGTTCAAGGACAAGAGAGTGGGACAAAGGGACTTGAT  
TTCTCAGATCGTATTGAAAAACCAAGAGGACAGGATATGAATCTGGAGAATATGAGATGCTTGGAGAGG  
GTCTGGGAGTGAAGGAGACACCCAGCAAAGTACCAGCGCCTACTGCATGAGGTCCAAGAGCTGACAAC  
TGAAGTTGAAAAATCAAGACGACAGTGAAGGAGTCAGCCACAGAGGAGAAGCTGACCCCTGTGTTGCTG  
GCTAAACAGCTGGCAGCCCTGAAGCAGCAGCTGGTTGCTCCACCTGGAGAAGCTGCTGGGACCAGATG  
CTGCAATCAACCTTACCGACCCCGATGGCGCCCTGGCTAAGCGCCTACTACTGCAGCTGGAAGCAACAAA  
GAACAGCAAAGGGGGATCAGGGGAAAAACCACTGGGACCCCCAGATAGCAGCCTTGCACTTATGAA  
CTACATTCTCGGCCTGAGCAGGACAAGTCTCTCAAGTGCCAAAGTCGAGAAGTTGAAAAGCGCCTGA  
CAGAGCTGGAGACAGCTGTACGTTGTGATCAGGATGCTCAGAATCCCCTTCTGCAGGTCTACAGGGAGC  
CTGTCTCATGGAGACTGTAGAGCTGTTGCAAGCAAAGGTGAGCGCCCTAGACCTTGCAAGTTTGGATCAA  
GTGGAGGCTCGGCTACAGAGTGTCTGGAAAGGTGAACGAGATTGCCAAGCATAAAGCCCTGTAGAAG  
ATGCAGATACACAAAGCAAGGTGCACCAGCTATATGAAACTATACAGCGCTGGAGCCCATTCCTCCAC  
CCTCCCTGAGCTGGTGCAGAGACTTGTACCATCAAGCAGCTGCACGAGCAAGCCATGCAGTTTGGTCAG  
CTCCTGACACACTTGATACCACCCAGCAGATGATTGCTAATTCCTTGAAGGACAATACCACCTCTTGA  
CCCAGGTGCAGACAACCATGCGTAAAACCTGGCCACAGTTGAGGGGAACCTTGGCAGCATTGATGAACG  
GATGAAGAAGCTGGGAAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232664 representing NM\_001261412  
 Red=Cloning site Green=Tags(s)

MADPKYADLPGIARNEPDVYETS<sup>1</sup>DLPEDDQAEFDAELEE<sup>2</sup>LTSTSVEHII<sup>3</sup>VNPNAAYDKFKDKRVG<sup>4</sup>TKGLD<sup>5</sup>  
 FSDRIGTKRTGYESGEYEM<sup>6</sup>LGELGVKETPQQKYQ<sup>7</sup>RLLEHVQELTTEVEKIKTTVKESATEE<sup>8</sup>KLTPVLL<sup>9</sup>  
 AKQLAALKQQLVASHLEKLL<sup>10</sup>GPDAAINLTD<sup>11</sup>PDGALAKRLL<sup>12</sup>LQLEATKNSKGGSGGKTTGTPD<sup>13</sup>SSLV<sup>14</sup>TYE<sup>15</sup>  
 LHSRPEQDKFSQA<sup>16</sup>AKVAELEKRLTELETAV<sup>17</sup>RCDQDAQN<sup>18</sup>PLSAGLQGA<sup>19</sup>CLMETVELLQAKV<sup>20</sup>SALDLAVLDQ<sup>21</sup>  
 VEARLQSVL<sup>22</sup>GKVNEIAKHKASVEDAD<sup>23</sup>TQSKVHQLYETIQ<sup>24</sup>RWSPIASTLPELVQRLV<sup>25</sup>TIKQLHEQAMQ<sup>26</sup>FGQ<sup>27</sup>  
 LLTHLDTTQ<sup>28</sup>MIANSLKDNTTLLTQ<sup>29</sup>VQTTMREN<sup>30</sup>LATVEGNFASIDERMK<sup>31</sup>KL<sup>32</sup>LGK

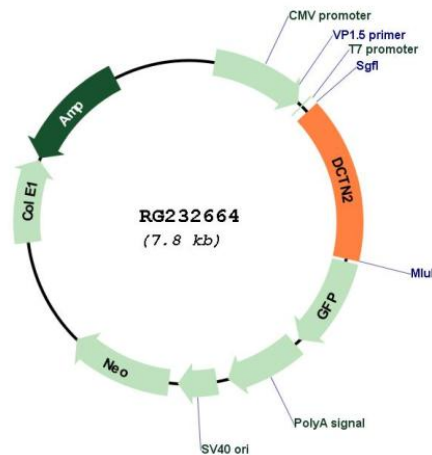
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001261412

<b>ORF Size:</b>	1209 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001261412.1</a> , <a href="#">NP_001248341.1</a>
<b>RefSeq Size:</b>	2119 bp
<b>RefSeq ORF:</b>	1212 bp
<b>Locus ID:</b>	10540
<b>UniProt ID:</b>	<a href="#">Q13561</a>
<b>Cytogenetics:</b>	12q13.3
<b>Protein Pathways:</b>	Huntington's disease
<b>Gene Summary:</b>	This gene encodes a 50-kD subunit of dynactin, a macromolecular complex consisting of 10-11 subunits ranging in size from 22 to 150 kD. Dynactin binds to both microtubules and cytoplasmic dynein. It 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 is present in 4-5 copies per dynactin molecule. It contains three short alpha-helical coiled-coil domains that may mediate association with self or other dynactin subunits. It may interact directly with the largest subunit (p150) of dynactin and may affix p150 in place. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2012]