

## Product datasheet for **RG206340**

### SPG7 (NM\_003119) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SPG7 (NM_003119) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPG7
Synonyms:	CAR; CMAR; PGN; SPG5C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG206340 representing NM\_003119  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCGTGCTGCTGCTGCTGCTCCGTGCCCTCCGCCGGGTCCAGGCCCGGGTCTCGGCCGTGTGGG  
 GCCCAGGCCCGCCTGGAGTCCAGGGTTCGCCAGGCCCGGGAGGGGGCGGCCGTACATGGCCAGCAG  
 GCCTCCGGGGGACCTCGCCGAGGCTGGAGGCCGAGCTCTGCAGAGCTTACAATTGAGACTGCTAACCCT  
 ACCTTTGAAGGGATCAACGGATTGTTGTTGAAACAACATTTAGTTCAGAATCCAGTCAGACTCTGGCAAC  
 TTTTAGGTGGTACTTTCTATTTAACACCTCAAGGTTGAAGCAGAAGAATAAGGAGAAGGATAAGTCGAA  
 GGGGAAGGCGCCTGAAGAGGACGAAGAGGAGAGGAGACGCCGTGAGCGGGACGACCAGATGTACCGAGAG  
 CGGCTGCGCACCTTGCTGGTCATCGCGTTGTCATGAGCCTCTGAATGCTCTCAGCACCAGCGGAGGCA  
 GCATTTCTGGAACGACTTTGTCCACGAGATGCTGGCCAAGGGCGAGGTGCAGCGCTCCAGGTGGTGCC  
 TGAGAGCGACGTGGTGAAGTCTACCTGCACCCTGGAGCCGTGGTGTGGGGCGCCTCGGCTAGCCTTG  
 ATGTACCGAATGCAGGTTGCAAATATTGACAAGTTTGAAGAGAAGCTTCGAGCAGCTGAAGATGAGCTGA  
 ATATCGAGGCCAAGGACAGGATCCCAGTTTCTACAAGCGAACAGGATTCTTTGAAATGCCCTGTACTC  
 TGTGGGGATGACGGCAGTGGGCCTGGCCATCCTGTGGTATGTTTTCCGTCTGGCCGGATGACTGGAAGG  
 GAAGGTGGATTCACTGCTTTTAAATCAGCTTAAATGGCTCGTTTACCATTGTGGATGGGAAGATGGGGA  
 AAGGAGTCAGCTTCAAAGACGTGGCAGGAATGCACGAAGCCAACTGGAAGTCCGCGAGTTTGTGGATTA  
 TCTGAAGAGCCCAGAACGCTTCTCCAGCTTGGCGCAAGGTCCCAAAGGGCGCACTGCTGCTCGGCCCC  
 CCCGGCTGTGGGAAGACGCTGCTGGCCAAGGCGGTGGCCACGGAGGCTCAGGTGCCCTTCTTAAGGAAGC  
 CCGGCGCAGAGTTGCTGGAGGTCATTGGAGGCCCTCGGCGCTGCCCGTGTGCGGAGCCTCTTAAGGAAGC  
 CCGAGCCCGGGCCCCCTGCATCGTCTACATCGATGAGATCGACGCGGTGGGCAAGAAGCGCTCCACCACC  
 ATGTCCGCTTCTCCAACACGGAGGAGGAGCAGACGCTCAACCAGCTTCTGGTAGAAATGGATGGAATGG  
 GTACCACAGACCATGTCACTCGTCTGGCGTCCACGAACCGAGCTGACATTTTGGACGGTGTCTGATGAG  
 GCCAGGCCGACTGGACCGGCACGTCTTCAATTGATCTCCCACGCTGCAGGAGAGGGCGGAGATTTTGGAG  
 CAGCACCTGAAGAGCCTGAAGCTGACCCAGTCCAGCACCTTTTACTCCCAGCGTCTGGCAGAGCTGACAC  
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 TCAGATGCTCCCCAGAGACCAGCACCTTTCACCAAGGAGCAGCTGTTTGAGCGGATGTGCATGGCCCTG  
 GGAGGACGGGCCCTCGGAAGCACTGTCTTCAACGAGGTCACTTCTGGGGCACAGGACGACCTGAGGAAGG  
 TCACCCGCATCGCTACTCCATGGTGAAGCAGTTTGGGATGGCACCTGGCATCGGGCCCATCTCCTTCCC  
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 CATGAAGCAAGACTGCTGGTGGCCAAGGCCTACAGACACCCGAGAAGGTGCTGCAGGACAACCTGGACA  
 AGTTGCAGGCGCTGGCAAACGCCCTTCTGAAAAGGAAGTGATAAACTATGAGGACATTGAGGCTCTCAT  
 TGGCCCCGCCCCATGGGCCGAAGAAAATGATCGCACCCGAGAGGTGGATCGACGCCAGAGGGAGAAA  
 CAGGACTTGGGCGAGGAGGAGACCGAAGAGACCCAGCAGCCTCCACTTGGAGGCGAAGAGCCGACTTGGC  
 CCAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG206340 representing NM\_003119  
 Red=Cloning site Green=Tags(s)

MAVLLLLLRALRRGPGGPRPLWGPAPWSPGFARPGRGRPYMASRPPGDLAEAGGRALQSLQLRLLTP  
 TFEGINGLLKQHLVQNPVRLWQLLGGTFYFNTSRLKQKNKEKDKSKGKAPEEEDERRRRERDDQMYRE  
 RLRTLLVIAVMSLLNALSTSGGSIWDFVHEMLAKGEVQRVQVVPESDVVEVYLHPGAVVFGPRRLAL  
 MYRMQVANIDKFEEKLRAAEDELNIEAKDRIPVSYKRTGFFGNALYSVGMTAVGLAILWYVFRLAGMTGR  
 EGGFSAFNQLKMARFTIVDGKMGKGVSFKDVAGMHEAKLEVREFVDYLKSPERFLQLGAKVPGALLLGP  
 PGCCKTLLAKAVATEAQVPFLAMAGAEFVEVIGGLGAARVRSLFKEARARAPCIVYIDEIDAVGKKRSTT  
 MSGFSNTEEEQTLNQLLVEMDGMGTTDHIIVLASTNRADILDGALMRPGRLDRHVFIDLPTLQERREIFE  
 QHLKSLKLTQSSTFYSQLAELTPGFSGADIANICNEAALHAAREGHTSVHTLNFEYAVERVLGTAKKS  
 KILSKEEQKVVAFHESGHALVGWMLEHTEAVMKVSIPTRTNAALGFAQMLPRDQHLFTKEQLFERMCMAL  
 GGRASEALSFNEVTSGAQDDLKRVTRIAYSMVKQFGMAPGIGPISFPEAQEGLMGIGRRPFSQGLQQMMD  
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 QDLGEEETEETQQPPLGGEEPTWPK

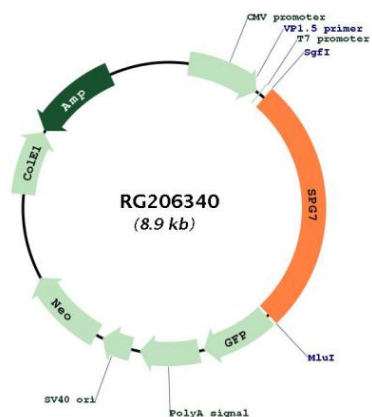
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_003119.2</a>, <a href="#">NP_003110.1</a></p>
<b>RefSeq Size:</b>	<p>3096 bp</p>
<b>RefSeq ORF:</b>	<p>2388 bp</p>
<b>Locus ID:</b>	<p>6687</p>
<b>UniProt ID:</b>	<p><a href="#">Q9UQ90</a></p>
<b>Cytogenetics:</b>	<p>16q24.3</p>
<b>Domains:</b>	<p>Peptidase_M41, AAA, AAA</p>
<b>Protein Families:</b>	<p>Protease, Transmembrane</p>
<b>Gene Summary:</b>	<p>This gene encodes a mitochondrial metalloprotease protein that is a member of the AAA family. Members of this protein family share an ATPase domain and have roles in diverse cellular processes including membrane trafficking, intracellular motility, organelle biogenesis, protein folding, and proteolysis. Mutations in this gene cause autosomal recessive spastic paraplegia 7. Two transcript variants encoding distinct isoforms have been identified. [provided by RefSeq, Mar 2014]</p>

Product images:



Circular map for RG206340