

## Product datasheet for **RG211220**

### EN2 (NM\_001427) Human Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: EN2 (NM\_001427) Human Tagged ORF Clone  
 Tag: TurboGFP  
 Symbol: EN2  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-AC-GFP (PS100010)  
 E. coli Selection: Ampicillin (100 ug/mL)  
 ORF Nucleotide Sequence: >RG211220 representing NM\_001427  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGGAGAATGACCCCAAGCCTGGCGAAGCAGCGGGCGCGGTGGAGGGACAGCGGCAGCCGGAATCCA  
 GCCCGGCGGGCGGCTCGGGCGGCGGGCGGTAGCAGCCAGGCGAAGCGGACACCGGGCGCGGGG  
 TCTGATGCTGCCCGGGTCTGCAGGCGCCCGCAACCACCAGCACCCGACCGCATCACCAACTTCTTC  
 ATCGACAACATCCTCGGCCGAGTTCGGCCGGCGAAAGGACGCGGGGACCTGCTGTGCGGGCGGGGAG  
 GAGGAAGGGGCGGCGGAGCCGGCGGCGAAGGCGGCGGAGCGGTGCGGAGGGAGGCGGGCGGGGCGG  
 CTGGAGCAGCTTTGGGCTCGGGTCCCGAGAGCCCGGAGAACCCGCGCATGTGCGCCCGGCGGGG  
 GGGCCGCTCCCAGCCCGGCGAGCGACTCTCCGGGTGACGGGAAGGCGGCTCCAAGACGCTCTCGCTGC  
 ACGGTGGCGCAAGAAAGGCGGCGACCCCGGCGGCCCTGGACGGTTCGCTCAAGGCCCGGCTTGGG  
 CGGCGGCGACTGTGCGTGAGCTCGGACTCGGACAGCTCGCAAGCCGGCGCAACCTGGGCGCGAGCCC  
 ATGCTCTGGCGGCGTGGTCTACTGTACGCGCTACTCGGACCGGCTTCTTCAGGTCCCAGGTCTCGAA  
 AACCAAAGAAGAAGAACCCGAACAAGAGGACAAGCGGCCGCGCACGGCCTTTACCGCCGAGCAGCTGCA  
 GAGGCTCAAGGCCGAGTTCAGACCAACAGGTACCTGACGGAGCAGCGGCCAGAGCCTGGCGCAGGAG  
 CTGAGCCTCAACGAGTCACAGATCAAGATTTGGTTCCAGAACAAGCGGCAAGATCAAGAAGGCCACGG  
 GCAACAAGAACACGCTGGCCGTGCACCTCATGGCACAGGGCTTGTACAACCACTCCACCAGCCAAGGA  
 GGGCAAGTCGGACAGCGAG

ACGCGTACGCGGGCGGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG211220 representing NM\_001427  
Red=Cloning site Green=Tags(s)

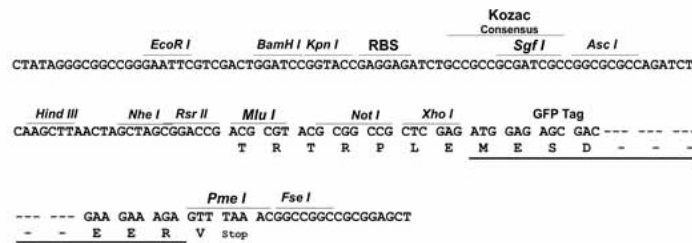
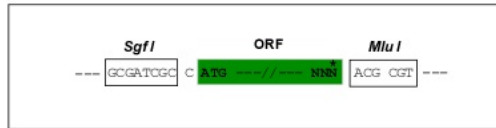
MEENDPKPGEAAAIVEGQRQPESPPGGSGGGGGSSPGEADTGRRRALMLPAVLQAPGNHQHPHRI TNFF  
 IDNILRPEFGRRK DAGTCCAGAGGRRGGAGGEGGASGAEGGGGAGGSEQLL GSGSREPRQNPPCAPGAG  
 GPLPAAGSDSPGDGEGGSKT LSLHGGAKKGGDPGGPLDGLSKARLGGDL SVSSDSDSSQAGANLGAQP  
 MLWPAWVYCTRYSDRPSGPRSRKPKKKPNKEDKRPTAFTA EQLQRLKA EFQTNRYL TEQRRQSLAQE  
 LSLNESQIKIWFQNKRAIKKATGNKNTLAVHLM AQGLYNHSTTAKEGKSDSE

TRTRPLE - GFP Tag - V

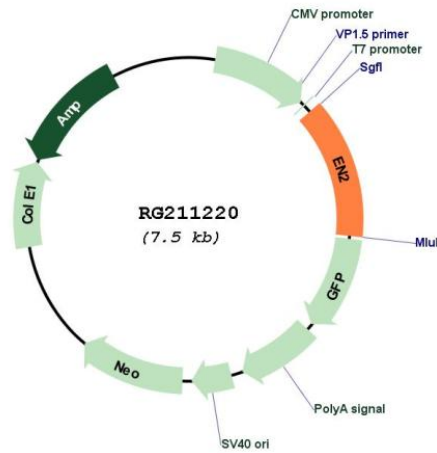
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_001427

**ORF Size:** 999 bp

<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_001427.2</a>, <a href="#">NP_001418.2</a></p>
<b>RefSeq Size:</b>	<p>3405 bp</p>
<b>RefSeq ORF:</b>	<p>1002 bp</p>
<b>Locus ID:</b>	<p>2020</p>
<b>UniProt ID:</b>	<p><a href="#">P19622</a></p>
<b>Cytogenetics:</b>	<p>7q36.3</p>
<b>Protein Families:</b>	<p>Druggable Genome, ES Cell Differentiation/IPS</p>
<b>Gene Summary:</b>	<p>Homeobox-containing genes are thought to have a role in controlling development. In Drosophila, the 'engrailed' (en) gene plays an important role during development in segmentation, where it is required for the formation of posterior compartments. Different mutations in the mouse homologs, En1 and En2, produced different developmental defects that frequently are lethal. The human engrailed homologs 1 and 2 encode homeodomain-containing proteins and have been implicated in the control of pattern formation during development of the central nervous system. [provided by RefSeq, Jul 2008]</p>