

## Product datasheet for **RG231502**

### PEG10 (NM\_001172437) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PEG10 (NM_001172437) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PEG10
Synonyms:	EDR; HB-1; Mar2; Mart2; MEF3L; RGAG3; RTL2; SIRH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG231502 representing NM\_001172437  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

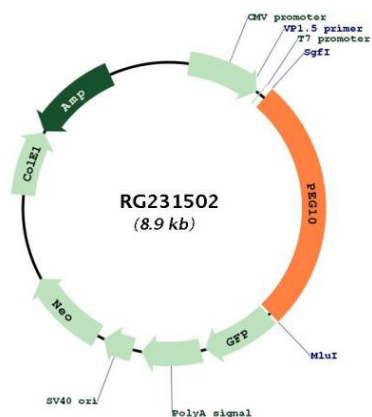
ATGCGAAATAAGCGGGTTTTGAAAACAAAAAAAGAAGGAGTGGAAGAGGGGGCCAGGATCCAGGCCTCC  
 ATCCCCACAGAAGTGAAGCTACAGCTGGGAGGTCTCCTCCCACCCAACCGTCACCCTGGGTCCCGACTG  
 CCCACCTCCTCCTCCTCCCTCCCTCCCAACAACAACAACAACAACAACCTCCAAGCACACCGGCCATAAG  
 AGTGCCTGTGTCCCAACATGACCGAACGAAGAAGGGACGAGCTCTCTGAAGAGATCAACAACCTTAAGAG  
 AGAAGGTCATGAAGCAGTCGGAGGAGAACAACCTGCAGAGCCAGGTGCAGAAGCTCACAGAGGAGAA  
 CACCACCCTTCGAGAGCAAGTGGAAACCCACCCCTGAGGATGAGGATGATGACATCGAGCTCCGCGGTGCT  
 GCAGCAGCTGCTGCCACCCCTCCAATAGAGGAAGAGTGCCAGAAGACCTCCAGAGAAGTTTCGATG  
 GCAACCCAGACATGCTGGCTCCTTTCATGGCCAGTGCCAGATCTTCATGGAAAAGAGCACCAGGGATTT  
 CTCAGTTGATCGTGTCCGTGTCTGCTTCGTGACAAGCATGATGACCGGCGGTGCTGCCCGTTGGGCCTCA  
 GCAAAGCTGGAGCGCTCCACTACCTGATGCACAACCTACCCAGCTTTCATGATGGAAATGAAGCATGTCT  
 TTGAAGACCTCAGAGGGCAGAGGTTGCCAAACGCAAGATCAGACGCCTGCGCCAAGGCATGGGGTCTGT  
 CATCGACTACTCCAATGCTTCCAGATGATTGCCAGGACCTGGATTGGAACGAGCCTGCGCTGATTGAC  
 CAGTACCACGAGGGCCTCAGCGACCACATTCAGGAGGAGCTCTCCACCTCGAGGTGCGCAAGTCGCTGT  
 CTGCTCTGATTGGGCAGTGCATTACATTGAGAGAAGGCTGGCCAGGGCTGCTGCAGCTCGCAAGCCACG  
 CTCGCCACCCCGGGCGCTGGTGTGCCTCACATTGCAAGCCACCACAGGTAGATCCAACCGAGCCGGTG  
 GGAGGTGCCCGCATGCGCCTGACGCAGGAAGAAAAAGAAAGACGCAGAAAGCTGAACTGTGCCTCTACT  
 GTGGAACAGGAGTCACTACGCTGACAATTGCTCCTGCCAAGGCTCAAAGTCTTCGCCGGGGAAAAACT  
 CCCCAGCCCGCTGTAGAGGGACCTTCAGCGACCGGGCCAGAAATAATAAGGTCCCAACAAGATGATGCC  
 TCATCTCCACACTTGCAAGTGTGCTCCAGATTCTTCGCGGAGACACACCTGTTCTGTCGAGCCA  
 TGATCGATTCTGGTGCTTCTGGCAACTTCATTGATCACGAATATGTTGCTCAAAATGGAATTCCTTAAG  
 AATCAAGGACTGGCCAATACTTGTGGAAGCAATTGATGGGCGCCCATAGCATCGGGCCAGTTGTCCAC  
 GAAACTCACGACCTGATAGTTGACCTGGGAGATCACCGAGAGGTGCTGTCATTTGATGTGACTCAGTCTC  
 CATTCTCCCTGTCGCTCCTAGGGGTTGCTGGCTGAGCACACATGATCCCAATATCATGAGCACTCG  
 ATCTATCGTCTTTGATTCTGAATACTGCCGCTACCACTGCCGATGATTTCTCCAATACCACCATCGCTC  
 CCACCACCAGCACCACAACCGCCACTCTATTATCCAGTAGATGGATACAGAGTTTACCAACCAGTGAGGT  
 ATTAATGTCCAGAATGTGTACTCCAGTAGATGAGCAGTCTACCCAGATCACCGCCTGGTTGACCC  
 TCATAGAAATGATACCTGGAGCACACAGTATCCCAGTGGACATGTGTATTCACTGTCCGAACCTGAA  
 ATGGCAGCTCTTCGAGATTTTGTGGCAAGAAATGTAAGATGGGCTAATTACTCCAACGATTGCACCTA  
 ATGGAGCCCAAGTTCTCCAGGTGAAGAGGGGGTGGAACTGCAAGTTTCTTATGATTGCCGAGCTCCAAA  
 CAATTTTACTATCCAGAATCAGTATCCTCGCCTATCTATTCCAAATTTAGAAGACCAAGCACACCTGGCA  
 ACGTACACTGAATTCGTACCTCAAATACCTGGATACCAACATACCCACATATGCCGCTACCCGACCT  
 ACCCAGTAGGATTCGCTGGTACCCAGTGGGACGAGACGGAAGGAAGATCACTATATGTACCTGTGAT  
 GATCACTTGAATCCACACTGGTACCGCCAGCTCCGGTACCACAGTACCCGCCACAGCCGCCGCGCT  
 CCACCACCACCACCGCCGCGCTCCATCTTACAGTACCCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA



<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>	<u>NM_001172437.1, NP_001165908.1</u>
<b>RefSeq Size:</b>	6602 bp
<b>RefSeq ORF:</b>	2354 bp
<b>Locus ID:</b>	23089
<b>Cytogenetics:</b>	7q21.3
<b>MW:</b>	88.3 kDa
<b>Gene Summary:</b>	<p>This is a paternally expressed imprinted gene that is thought to have been derived from the Ty3/Gypsy family of retrotransposons. It contains two overlapping open reading frames, RF1 and RF2, and expresses two proteins: a shorter, gag-like protein (with a CCHC-type zinc finger domain) from RF1; and a longer, gag/pol-like fusion protein (with an additional aspartic protease motif) from RF1/RF2 by -1 translational frameshifting (-1 FS). While -1 FS has been observed in RNA viruses and transposons in both prokaryotes and eukaryotes, this gene represents the first example of -1 FS in a eukaryotic cellular gene. This gene is highly conserved across mammalian species and retains the heptanucleotide (GGGAAAC) and pseudoknot elements required for -1 FS. It is expressed in adult and embryonic tissues (most notably in placenta) and reported to have a role in cell proliferation, differentiation and apoptosis. Overexpression of this gene has been associated with several malignancies, such as hepatocellular carcinoma and B-cell lymphocytic leukemia. Knockout mice lacking this gene showed early embryonic lethality with placental defects, indicating the importance of this gene in embryonic development. Additional isoforms resulting from alternatively spliced transcript variants, and use of upstream non-AUG (CUG) start codon have been reported for this gene. [provided by RefSeq, Oct 2014]</p>

Product images:



Circular map for RG231502