

Product datasheet for **RG223371**

PEG10 (NM_015068) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PEG10 (NM_015068) 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:

>RG223371 representing NM_015068
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACCGAACGAAGAAGGGACGAGCTCTCTGAAGAGATCAACAACCTTAAGAGAGAAGGTCATGAAGCAGT
 CGGAGGAGAACAACAACCTGCAGAGCCAGGTGCAGAAGCTCACAGAGGAGAACACCACCCTTCGAGAGCA
 AGTGGAACCCACCCTGAGGATGAGGATGATGACATCGAGCTCCGCGGTGCTGCAGCAGCTGCTGCCCA
 CCCCTCCAATAGAGGAAGAGTGCCAGAACCTCCAGAGAAGTTCGATGGCAACCCAGACATGCTGG
 CTCCTTTCATGGCCAGTGCCAGATCTTCATGGAAAAGAGCACCAGGGATTTCTCAGTTGATCGTGTCCG
 TGTCTGCTTCGTGACAAGCATGATGACCGGCGTGTGCCGTTGGCCCTCAGCAAAGCTGGAGCGCTCC
 CACTACCTGATGCACAACCTACCAGCTTTCATGATGGAATGAAGCATGTCTTTGAAGACCCTCAGAGGC
 GAGAGGTTGCCAAACGAAGATCAGACGCCTGCGCAAGGCATGGGGTCTGTCTCGACTACTCCAATGC
 TTTCCAGATGATTGCCAGGACCTGGATTGGAACGAGCCTGCGCTGATTGACCAGTACCAGAGGGCCTC
 AGCGACCACATTCAGGAGGAGCTCTCCACCTCGAGGTGCGCAAGTCGCTGTCTGCTCTGATTGGGCAGT
 GCATTCACATTGAGAGAAGGCTGGCCAGGGCTGCTGCAGCTCGCAAGCCACGCTCGCCACCCCGGGCGCT
 GGTGTTGCCTCACATTGCAAGCCACCACAGGTAGATCCAACCGAGCCGGTGGGAGGTGCCCGCATGCGC
 CTGACGCGAGGAAGAAAAGAAAGACGCAGAAAGCTGAACCTGTGCCTCTACTGTGGAACAGGAGGTCCT
 ACGCTGACAATTGCTCTGCCAAGGCCTCAAAGTCTTCGCCGGCGGGAAACTCCCCGGCCCCGCTGTAGAG
 GGACCTTCAGCGACCGGGCCAGAAATAAAGGTCACCAAGATGATGCCTCATCTCCACACTTGAAG
 TGATGCTCCAGATTCATCTTCGGGCAGACACACCCTGTTGTCGAGCCATGATCGATTCTGGTGCTTC
 TGGCAACTTCATTGATCAGCAATATGTTGCTCAAATGGAATTCCTTAAGAATCAAGGACTGGCCAATA
 CTGTGGAAGCAATTGATGGGCGCCCCATAGCATCGGGCCAGTTGTCCAGAAACTCACGACCTGATAG
 TTGACCTGGGAGATCACCGAGAGGTGCTGTCTTTGATGTGACTCAGTCTCCATTCTCCCTGTCGTCTCT
 AGGGGTTGCTGGCTGAGCACACATGATCCCAATATCACATGGAGCACTCGATCTATCGTCTTTGATTCT
 GAATACTGCCGCTACCACTGCCGGATGATTCTCCAATACCACCATCGCTCCACCACCAGCACCACAAC
 CGCCACTCTATTATCCAGTAGATGGATACAGAGTTTACCAACCAGTGAGGTATTACTATGTCCAGAATGT
 GTACACTCCAGTAGATGAGCACGTCTACCAGATCACCAGCCTGGTTGACCCTCACATAGAAATGATACCT
 GGAGCACACAGTATCCAGTGGACATGTGTATTCACTGTCCGAACCTGAAATGGCAGCTCTTCGAGATT
 TTGTGGCAAGAAATGTAAGATGGGCTAATTACTCCAACGATTGCACCTAATGGAGCCCAAGTTCTCCA
 GGTGAAGAGGGGGTGGAAACTGCAAGTTTCTTATGATTGCCGAGCTCAAACAATTTTACTATCCAGAAT
 CAGTATCCTCGCCTATCTATTCCAAATTTAGAAGACCAAGCACACCTGGCAACGTACACTGAATTCGTAC
 CTCAAATACCTGGATACCAAACATACCCACATATGCCGCGTACCCGACCTACCCAGTAGGATTCGCTG
 GTACCCAGTGGGACGAGACGGACAAGGAAGATCACTATATGTACCTGTGATGATCACTTGGAAATCCACAC
 TGGTACCGCCAGCCTCCGGTACCACAGTACCCGCGCCACAGCCGCGCTCCACCACCACCACCGCCG
 CGCTCCATCTTACAGTACCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

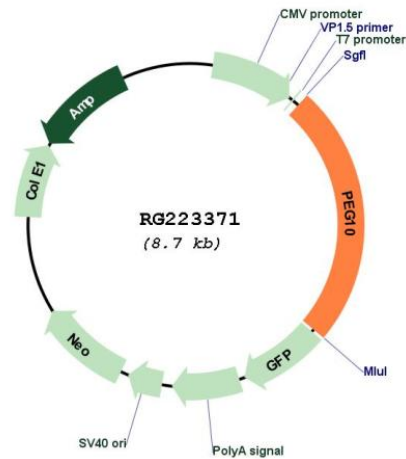
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_015068

ORF Size: 2123 bp

OTI Disclaimer: 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:	<ol style="list-style-type: none">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:	<u>NM_015068.3</u> , <u>NP_055883.2</u>
RefSeq Size:	6628 bp
RefSeq ORF:	2126 bp
Locus ID:	23089
UniProt ID:	<u>Q86TG7</u>
Cytogenetics:	7q21.3
Gene Summary:	<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>