

Product datasheet for **SC108513**

PEG10 (NM_015068) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PEG10 (NM_015068) Human Untagged Clone
Tag:	Tag Free
Symbol:	PEG10
Synonyms:	EDR; HB-1; Mar2; Mart2; MEF3L; RGAG3; RTL2; SIRH1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_015068, the custom clone sequence may differ by one or more nucleotides

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CTCCTCGGTGCAACCTATATAAGGCTCACAGTCTGCGCTCCTGGTACACGCGCTTCAACTTCGGTTGGTG
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CGCTGAGCGGGTGTCTGTCGGAGCCACTCCGGGCTGCGGAGCACCCAGTGGAGACCGCGCTGGCTCAG
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AATAAAAAATCAATAAAGATTTAGTGGTTAAGTGCAAAAAAAAAAAAAA
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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_015068 unedited
TCCTCCCCCTCCCCCAACAACAACAACAACAACCTCCAAGCACACCGGCCATAAGAG
TGCGTGTGTCCTCAACATGACCGAACGAAGAAGGGACGAGCTCTCTGAAGAGATCAACAA
CTTAAGAGAGAAGGTCATGAAGCAGTCGGAGGAGAACAACAACCTGCAGAGCCAGGTGCA
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GGATGATGACATCGAGCTCCGCGGTGCTGCAGCAGCTGCTGCCCCACCCCTCCAATAGA
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TTTCATGGCCCAAGTCCAGATCTTCATGGAAAAGAGACCAGGGATTTCTCAGTTGATCG
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TTCACATTGAGAGAAGGCTGGCCAGGGCTGCTGCAGCTCGCAGGCACGCTTCGCCCCCGG
CGGCCTGGNNGTGTACATGCAGCCCCCACCAGTAGATCAACGGAGCGGGGG
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_015068 unedited ACTAAACGCCCTTGAGGTCGAGTTTTAATTCCTTTTTTTTTTTTTTTTTTGGCACTTAACCA CTAATCTTTATTGAATTTTATTGTAACAGCAATGCAATATTAGCAAATAGAGAGAAAT ATAGAGTGAAGAGAATACAGCAATAAAGTTAGAAGGAGGGGTAGGGGCAATGGGGTTCAG TGGTAGGAGGAGGGCTACTGACAGGGTAAAAGCAAGGGTTTTATTTATCACTTTTATA ACTTCCATGAAAAATTTACCATCCATCATTGACAAGTTCATTCTAGCAGTAATTTATCAGA GGTCACCTCATCCTCTATTAATTAATTAATCTAATCACCTTTGAACTTTCTCCCCTGGGG TTTTATCCATGTCCAATTCGCTCTAAATAAGTTGGTCTCCCTGCAGTTCCTCCGAGTT TATTTGAAATCTTTAAGGATAGCAATTATAGGGTAAAGGGTTACAAGTAAGTACGCATGT CCACTTATAGCGATATCTAATACATAATATTATTCTAACATTCTAAATAACCCACCCAC TAAAAATTACTTAATAGTCCCTCCACCCTACAATGCTTATGATTATATTTCCCTATT ACTTAACTTGATTACACAAAGAAATAAAGCAATGCAATTTTTACAGACCAATTTTCAT ACCCTTCTACAATCTCAAACAACCAAGAAGTTCAGTCTTATCAGATGTGCATTCTCTTC TTAGATGAAAATGTACCATGGTTCCTCCCGCAGGGCTCTTCATTTCTGTTCCAGGTCTTTT CACACGGTGTCTCTGTTGTCAATCTTGACCTGTTCTGTTCTGATGGGAAATGCCTGGG GGCATGACACCTGCTTCCATTCCGAGTCCAGCAGGGCCCTCAAACCTTCAACGAATTT GAACTGCCATTAAGTGGTCCCTTATTCTTGGCCCTGCAAGTCTCGGATTATTTCCGA TTGACACACAATTTCTTTCTTTTATAAAAGACCTCTTGTCAAATCAATGCCCTCTCAA TGAAGCAA
Restriction Sites:	NotI-NotI
ACCN:	NM_015068
Insert Size:	6450 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	NM_015068.2 , NP_055883.1
RefSeq Size:	6628 bp
RefSeq ORF:	978 bp
Locus ID:	23089
UniProt ID:	Q86TG7
Cytogenetics:	7q21.3

Gene Summary:

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]

Transcript Variant: This variant (1) has two overlapping open reading frames (RF1 and RF2) and two in-frame translation initiation codons: an upstream non-AUG (CUG) and a downstream AUG. This isoform (1) is derived from RF1/RF2 by -1 translational frameshifting and use of downstream AUG start codon.