

Product datasheet for **MR225144**

Peg10 (NM_001040611) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Peg10 (NM_001040611) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Peg10
Synonyms: AA407948; Ed; Edr; HB-1; Ma; Mar; Mar2; Mart2; MEF3; MEF3L; MyEF-3; Rt; Rtl2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR225144 representing NM_001040611
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGCTGCGGGTGGTTCCTCCAAGTCCCGCCCTCCCTCCCTCCCTCCCAACAACAACAACA
 ACAACAACACCCCAAAGAGCCCAGGCGTGCCTGACGCCGAAGATGATGATGAACGCAGACACGATGAGCT
 CCCTGAAGACATCAACAACCTTTGACGAAGACATGAACAGGCAGTTTGAAGAATATGAACCTGCTGGATCAG
 GTGGAGTTGCTTGACAGAGCTACAGTCTGCTGGATCATTAGATGACTTTGATGATGATGATGAAGACG
 ATGACTTTGATCCAGAACCTGACCAGGATGAGCTCCCTGAGTACAGTACGATGATGACCTGGAGCTTCA
 GGGTGTGTCAGCAGCCCTATCCCAAATTTTTCTCCGATGATGACTGCCTTGAAGACCTTCTGAGAAG
 TTCGATGGCAACCCTGACATGCTGGTCTTTTCATGTATCAGTGCCAGCTCTTCATGGAAAAGAGACCA
 GAGATTTCTCAGTTGACCGCATCCGTGTGTGCTTCGTGACAAGCATGCTGATCGGCCGTGCCGCCGCTG
 GGCTACTGCCAAGCTGCAAAGATGTACTTACCTGATGCACAACACTACACTGCCTTTATGATGGAGCTGAAG
 CATGTCTTTGAAGACCCTCAGAGACGTGAAGCTGCCAAACGCAAGATCAGACGTCTGCGCCAGGGCCCTG
 GGCCTGTTGTGGACTACTCCAATGCATTCCAGATGATTGCCAGGACCTGGATTGGACTGAGCCTGCCCT
 GATGGATCAGTTCCAGGAAGGTCTCAACCCAGACATTCGCGCAGAGCTGTCTCGCCAGGAGGCCCAAG
 ACCCTGGCTGCTGATTACTGCCTGTATTCACATCGAGAGAAGGCTGGCTCGTGACGCTGCTGCAAAG
 CCGATCCTTCAACCAGAGCCTTGGTGTGCTCCAAACAGCCAGACCGATCCACCGAGCCTGTGGGAGG
 TGCCCGCATGCGCCTGTCCAAGGAAGAAAAGGAGAGACGCCGCAAATGAATTTGTGTCTACTGTGGC
 AATGGAGGCCATTTGCGGACACGTGTCCAGCGAAAGCCTCCAAGAATTCGCGCGCGGAAACTCCCCGG
 CCCCCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR225144 representing NM_001040611
 Red=Cloning site Green=Tags(s)

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  MAAAGSSNCPPPPPPPPNNNNNTPKSPGVPDAEDDDERRHDELPEIDNNFDEDMNRQFENMNLDDQ
  VELLAQSYSLLDHLDDFDDDDDDDFDPEPDQDELPEYSDDDDLELQGAAAIPNFFSDDDCLEDLPEK
  FDGNPDMLGPFMYQCQLFMEKSTRDFSVDRIRVCFVTSMLIGRAARWATAKLQRC TYLMHNYTAFMMELK
  HVFEDPQRREAARKIRRLRQGGPVVDYSNAFQMI AQDLDWTEPALMDQFQEGLNPDIRAE LSRQEAPK
  TLAALITACIHIERRLARDAAAKPDPSPRALVMPPNSQTDPTPEVGGARMRLSKEEKERRKMNLCLYCG
  NGGHFADTCPAKASKNSPPGNSPAPL
  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001040611

ORF Size: 1128 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:

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_001040611.1](#), [NP_001035701.1](#)

RefSeq Size: 6677 bp

RefSeq ORF: 1131 bp

Locus ID: 170676

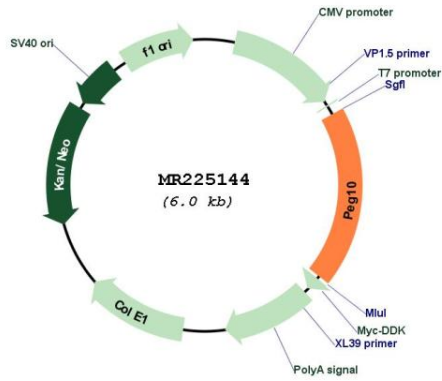
UniProt ID: [Q7TN75](#)

Cytogenetics: 6 1.81 cM

MW: 42.8 kDa

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, apoptosis and cancer development. Knockout mice lacking this gene showed early embryonic lethality with placental defects, indicating the importance of this gene in embryonic development. [provided by RefSeq, Oct 2014]

Product images:



Circular map for MR225144