

Product datasheet for **RC229935L4V**

PEG10 (NM_001184962) Human Tagged ORF Clone Lentiviral Particle

Product data:

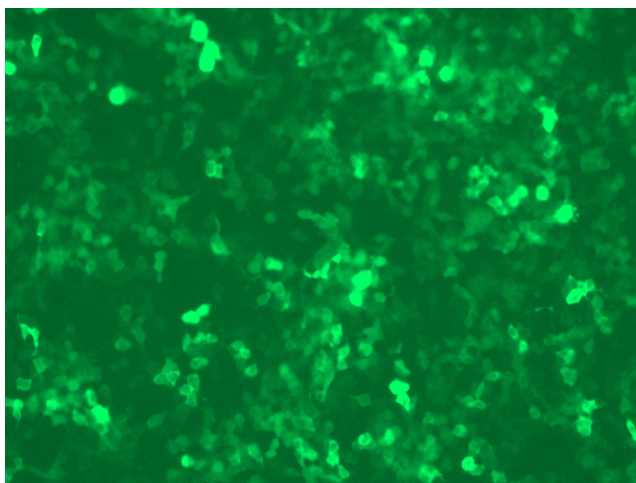
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|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | PEG10 (NM_001184962) Human Tagged ORF Clone Lentiviral Particle |
| Symbol: | PEG10 |
| Synonyms: | EDR; HB-1; Mar2; Mart2; MEF3L; RGAG3; RTL2; SIRH1 |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-mGFP-P2A-Puro (PS100093) |
| Tag: | mGFP |
| ACCN: | NM_001184962 |
| ORF Size: | 975 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RC229935). |
| 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. |
| RefSeq: | NM_001184962.1 |
| RefSeq Size: | 6628 bp |
| RefSeq ORF: | 1080 bp |
| Locus ID: | 23089 |
| UniProt ID: | Q86TG7 |
| Cytogenetics: | 7q21.3 |
| MW: | 37 kDa |



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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]

Product images:

[RC229935L4] was used to prepare Lentiviral particles using [TR30037] packaging kit. HEK293T cells were transduced with RC229935L4V particle to overexpress human PEG10-mGFP fusion protein.