

## Product datasheet for **RC229077**

### PEG3 (NM\_001146185) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PEG3 (NM\_001146185) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** PEG3  
**Synonyms:** PW1; ZKSCAN22; ZNF904; ZSCAN24  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC229077 representing NM\_001146185  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGGATCGCC

ATGTACCAACCAGAAGACGACAACAACAGTGACGTGACCAGCGACGACGACATGACCCGGAACAGAAGAG  
AGTCCTCACACCTCACTCAGTCCATTCTTTCAGTGACCGGGACTGGGACCGGAGGGGCAGAAGCAGAGA  
CATGGAGCCACGAGACCGCTGGTCCCACACCAGGAACCAAGAAGCAGGATGCCTCCGCGGGATCTTTCC  
CTTCTGTGGTGGCGAAAACAAGCTTTGAAATGGACAGAGAGGACGACAGGGACTCCAGGCTTATGAGT  
CCCGATCTCAGGATGCTGAATCATACAAAATGTGGTGGACCTCGCTGAGGACAGGAAACCTCACAAAC  
AATCCAGGACAACATGGAAAACACAGGAAGCTGCTCTCCCTCGTGCAGCTTGCTGAAGACGATGGCCAC  
TCCCACATGACGCAGGGCCACTCATCAAGATCCAAGAGAAGTGCCTACCAAGCACCAGTCGAGGTCTAA  
AACTATGCCTGAAGCCAAAAATCAACCCACCGCGGGGATTTGTGAAGATGAATCTTCCCACGGAGT  
GATAATGGAAAAATTCATCAAGGATGTGCACGCAGTTCAAAATCGGGAAGAGCAAGGGAGTCAAGCGAC  
CGGTACAGAGATTCCCCAGAATGTGATGATAACTGGAAGGACATTTTCATTGAACAAGAGGGAGTCAG  
TGATCCAGCAGCGGTTTATGAAGGGAATGCATTTAGGGGAGGCTTTAGGTTTAAATCAACCTTGTTC  
CAGAAAGAGAGTTCTTGAAGAAAAGAGGCGCTATCATTTTGACACAGATGGGAAGGGCTCGATTACGAT  
CAAAAAGGCTGTCCAGGAAGAAGCCCTTTGAATGTGGTGTGAGATGAGAAAAGCCATGAGCGTGAGCA  
GCCTGAGCAGCCTCAGCTCCCCCTCTTTACCGAGTCACAGCCAATTGATTTGGGGCAATGCCATATGT  
ATGTGATGAGTGTGGGAGGTCGTTCAAGTGTGATCAGAAATTTGTTGAGCACCAGATCATGCATACTAGA  
GAGAACCCTCTATGAGTATGGTGTGCTTTATCCACAGTGTGGCTGTGAGTGAAGTTCAGAAAAGTCAGG  
TTGGAGGGAAACGTTTTGAATGTAAGGACTGTGGAGAGACCTTCAATAAGAGTGCCGCTTGCTGAACA  
TCGGAAGATTCATGCTAGAGTTATCTTGTGGAATGTAAGAATCAGGAATGTGAGGAAGCCTTCATGCCT  
AGCCCCACCTTTAGTGAGCTTCAGAAAATATATGGCAAAGACAAATCTACGAGTGCAGGTTGTGAAGG  
AAACCTTCTTCATAGTTCTGCCCTGATTGAGCACCAGAAAATCCAATTTGGGGATGACAAAGATAATGA  
CGGTGAACATGAACGTGAACGTGACGCGGGGAAACCTTTAGGCCAGCCAGCCCTTAATGAG  
TTTCAGAAAATGTATGTTAAAGAGAAAATGTACGAATGTAAGGTGTGTTGGGAGACTTTCCTTCATAGCT



[View online »](#)

CATCCCTGAAAGAACATCAGAAAATCCATACTAGAGGGAACCCATTTGAAAAAAGGGTAAAGTGTGTGA  
GGAAACCTTTATTCCTGGTCAGTCCCTAAAAGGCGTCAGAAAACCTTACAATAAGGAGAAGCTCTGTGAC  
TTTACAGATGGCCGGATGCCTTCATGCAAAGCTCAGAGCTCAGTGAGCATCAGAAAATTCATTCTCGAA  
AGAACCTTTTGAAGGCAGAGGGTATGAGAAATCTGTCATTATAGTGGGCCATTCAGTGAATCTCAGAA  
GAGTCATACTATAACAAGACCTTTGAAAGTGTGAGGACGAAAAGGCGTTCACCATTAGCTCTAACCCC  
TATGAAAACCAGAAGATCCCCTAAGGAAAATGTCTATGAGGCAAAATCATATGAGAGGTTCTGTTATTC  
ATAGCTTAGCCTCTGTGGAAGCTCAGAAAAGTCACAGTGTAGCAGGGCCAGTAAACCAAAAGTAAATGGC  
AGAGTCTACCATTAGAGCTTCGATGCTATCAACCATCAGAGAGTTTCGTGCTGGAGGGAACACCTCTGAA  
GGAAGGGAATACAGTAGGTCTGTTATCCATAGCTTAGTGGCTTCCAAACCTCCAAGAAGTACAATGGAA  
ATGAATTGGTGAATCTAATGAGAAGGGAGAATCCTCCATTTATATCTCAGACCTTAATGATAAGCGACA  
GAAGATTCCTGCCAGAGAGAACCCTTGTGAAGGGGCAGTAAGAATCGCAACTATGAAGACTCTGTCATA  
CAGAGTGTATTCCGTGCCAAACCTCAGAAAAGTGTTCCTGGAGAGGGATCTGGTGAAGTAAAGAAGGATG  
GCGAATTCCTGTTCACAGCTCAAATGTCCGTGAATACCAGAAGGCTCGTGTAAAAGAAATACATTGA  
GCATAGGAGCAATGAGACCTCTGAATTCCTCTGCTTTTGGTGAACAAACATTTCCGCTCGAGGG  
ATGCTCTATGAATGTCAGGAGTGTGGGAGTGCTTTGCTCATAGCTCTGACCTACTGAGCACCAGAAGA  
TTCATGATAGGGAGAAGCCCTCTGGAAGCAGAACTATGAATGGTCTGTCATTCCGAGCTTGGCCCTAC  
TGACCCTCAAACAAGTTCACGCCAAGAGCAGTATGCTAAAGAGCAAGCGGGAACAAATGTAAAGACTTC  
AGACAATTTTTGCTACCAGCGAAGACCTCAACACAAACCAGAAAATCTATGACCAAGAGAAGTCTCATG  
GCGAGGAGTCTCAAGGCGAGAATACTGATGGGGAGGAGACCCACAGCGAGGAGACCCATGGTCAGGAGAC  
AATTGAAGACCCTGTCAAGGCTCAGACATGGAAGACCCTCAGAAGGATGACCTGATGACAAAATC  
TATGAATGTGAGGACTGTGGCTGGGCTTTGTGGATCTCAGACCTCACAGACCATCAGAAAGTCCACA  
GCAGGAAGTGCCTGGTTGACAGTCGGGAGTACACACATTCTGTAATTCACACCCATTCCATCAGCGAGTA  
TCAGAGAGATTACACTGGAGAGCAGCTGTATGAATGTCCAAAGTGTGGGAATCTTTTATTCATAGCTCA  
TTCTTTTCGAGCATCAGAGAATCCATGAACAAGACCAGTTGTATTCCATGAAGGGGTGTGATGATGGTT  
TTATTGCCCTCTTGCCCATGAAGCCACGGAGGAATCGTGTGCAGAGAGGAATCCTGCTCTTGTGGGTC  
GGCCATTCGATGCCTTTTGTGTGGACAAGGCTTCATTCATAGCTCTGCCCTTAATGAGCATATGAGACTT  
CATAGGGAAGATGATTTACTGGAGCAGAGCCAGATGGCTGAGGAAGCTATCATTCCAGGCTTAGCCCTCA  
CTGAGTTTCAGAGAAGTCAGACCGAAGAGAGACTCTTTGAATGTGCAGTCTGTGGAGAATCTTCGTCAA  
CCCAGCAGAACTGCAGATCACGTAACGTTCATAAGAATGAGCCCTATGAGTACGGGCTCCTCTATACT  
CACACCTCATTTCTACTGAGCCCTCAAAGGAGCTATACCATTCTATGAATGCAAGGATTGTGGTAAGT  
CCTTTATTCATAGCACAGTCCCTACTAAACATAAGGAGCTTCATCTGGAAGAAGAAGAAGATGAAGC  
AGCAGCAGCTGCAGCAGCAGCAGCCAGGAAGTTGAAGCCAATGTCCATGTTCCACAAGTGTCTGAGG  
ATTCAGGGCTTAAACGTAGAGGCTGCTGAGCCAGAAGTGGAGGCTGCCGAGCCAGAAGTGGAGGCTGCTG  
AGCCAGAAGTGGAGGCTGCTGAGCCAAACGGAGAGGCTGAAGGGCCAGATGGAGAGGCTGCAGAGCCAT  
TGGAGAGGCTGGACAGCCAAATGGAGAGCCGAGCAGCCAAATGGGGATGCTGATGAGCCAGATGGTGCA  
GGTATTGAAGACCAGAAGAAAGAGCTGAAGAGCCAGAGGGAAAAGCTGAAGAGCCAGAGGGAGATGCCG  
ACGAGCCTGACGGTGTGGGAATTGAAGACCCAGAAGAAGTGAAGATCAAGAGATTCAGGTAGAAGAACC  
ATACTATGACTGCCATGAATGCACAGAAACCTTCACTTCCAGCACAGCATTTCAGTGAACACCTGAAAAC  
CATGCCAGCATGATCATATTTGAGCCTGCAAATGCCTTTGGGGAGTGTCTCAGGCTACATCGAACGTGCCA  
GCACCAGCACAGGTGGTGCCAATCAAGCTGATGAGAAAGTACTTCAAATGTGACGTCTGTGGGCAGCTCTT  
CAATGACCGCCTGTCCCTCGCCAGACACCAGAATACCCACACTGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC229077 representing NM\_001146185  
 Red=Cloning site Green=Tags(s)

MYQPEDDNNSDVTSDDDMTRNRRESSPPHVSFSDRDWDRRGRSRDMEPRDRWSHTRNPRSRMPPRDLS  
 LPVVAKTSFEMDREDDRSRAYSRSQDAESYQNVVDLAEDRKPHTIQDNMNYRKLKLSLVQLAEDDGH  
 SHMTQGHSSRSKRSAYPSTSRGLKTMPEAKKSTHRRGICEDESSHGVIMEKFIKDVSRSSKSGRARESSD  
 RSQRFPMSDDNWKDISELNKRESVIQQRVYEGNAFRGGFRFNSTLVSRRKRVLERKRRYHFDTDGKGSIH  
 QKGCPRKKPFECGSEMRAKMSVSSLSSPSTTESQPIDFGAMPYVCDCEGRSFSVISEFVEHQIMHTR  
 ENLYEYGESFIHSAVSEVQKSQVGGKRFECKDCGETFNKSAALAEHRKIHARGYLVECKNQECEEAFMP  
 SPTFSELQKIYGKDKFYECRVCKETFLHSSALIEHQKIHFDDKDNEREHERERERERGETFRPSPALNE  
 FQKMYGKEKMYECKVCGETFHSSSLKEHQKIHTRGNPFENKGVCEETFIPGQSLKRRQKTYNKEKLCD  
 FTDGRDAFMQSSELSEHQKIHSRKNLFEGRGYEKSVIHS GPFTESQKSHITRPLESDEDEKAFTISSNP  
 YENQKIPTKENVYEAKEYERSVIHSLASVEAQKSHSVAGPSKPKVMAESTIQSFDAINHQRVRAGNTSE  
 GREYSRSVIHSLVASKPPRSHNGNELVESNEKGESSIYISDLNDRQKIPARENPCGGSKNRNYEDSVI  
 QSVFRAKPKQKVPGESEGFKKDGEFVSPSSNVREYQKARAKKKYIEHRSNETSVIHS LPFGEQTFRPRG  
 MLYECQECGECFAHSSDLTEHQIHDREKPSGSRNYEWSVIRSLAPTDPQTSYAQEQYAKEQARNCKDF  
 RQFFATSEDLNTNQKIYDQEKSHGEESSQGENTDGEETHSEETHGQETIEDPVIQGSMDMEDPQKDDPDDKI  
 YECEDCGLGFVDLTDLDHVKVSRKCLVDSREYTHSVIHTHSISEYQRDYTGEQLYECPKCGESFIHSS  
 FLFEHQRIHEQDQLYSMKGCDDGFIALLPMKPRRNRAERNPALAGSAIRCLLCGQGFHSSALNEHMRL  
 HREDDLLEQSQMAEEAIIPLGLALTEFQRSQTEERLFECVCGESFVNPAPLADHVTVHKNEPVEYGSST  
 HTSFLTEPLKGAIPFYECKDCGKSFHSTVLTKHKELHLEEEDEAAAAAAAAAAQVEANVHVPQVVL  
 IQGLNVEAAEPEVEAAEPEVEAAEPEVEAAEPNGEAEGPDGEAAEPIGEAGQPNGEAEQPNGDADEPDGA  
 GIEDPEERAEEPEGKAEEPEGDADEPDGVIEDPEEGEDQEIQVEEPPYDCHECTETFTSSTAFSEHLKT  
 HASMIIFEPANAFGECSGYIERASTSTGGANQADEKYFKCDVCGQLFNDRLSLARHQNTHTG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

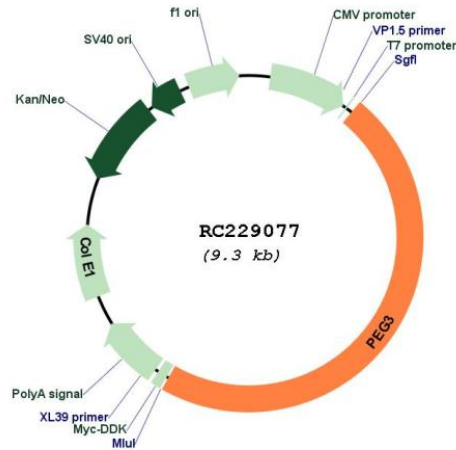
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001146185

ORF Size: 4386 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\\_001146185.2](#)

**RefSeq Size:** 8375 bp

**RefSeq ORF:** 4389 bp

**Locus ID:** 5178

**UniProt ID:** [Q9GZU2](#)

**Cytogenetics:** 19q13.43

**Protein Families:** Transcription Factors

**MW:** 166 kDa

**Gene Summary:** In human, ZIM2 and PEG3 are treated as two distinct genes though they share multiple 5' exons and a common promoter and both genes are paternally expressed (PMID:15203203). Alternative splicing events connect their shared 5' exons either with the remaining 4 exons unique to ZIM2, or with the remaining 2 exons unique to PEG3. In contrast, in other mammals ZIM2 does not undergo imprinting and, in mouse, cow, and likely other mammals as well, the ZIM2 and PEG3 genes do not share exons. Human PEG3 protein belongs to the Kruppel C2H2-type zinc finger protein family. PEG3 may play a role in cell proliferation and p53-mediated apoptosis. PEG3 has also shown tumor suppressor activity and tumorigenesis in glioma and ovarian cells. Alternative splicing of this PEG3 gene results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2009]