

## Product datasheet for SC128281

### PEG3 (NM\_006210) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PEG3 (NM_006210) Human Untagged Clone
Tag:	Tag Free
Symbol:	PEG3
Synonyms:	PW1; ZKSCAN22; ZNF904; ZSCAN24
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_006210, the custom clone sequence may differ by one or more nucleotides

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ATGCTGCCTCCAAAGCACTTGTCTGCCACCAAACCTAAGAAGTCCTGGGCCCAAATCTGTATGAGCTAG
ACAGTGACTTGACTAAGGAGCCGGATGTCATCATAGGAGAAGGTCCAACCTGACTCTGAGTTTTTTCATCA
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TCAGGAATGTGAGGAAGCCTTCATGCCTAGCCCCACCTTTAGTGAGCTTCAGAAAATATATGGCAAAGAC  
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TCAAATGTGACGCTGTGGGCAGCTCTCAATGACCGCTGTCCCTGCCAGACACCAGAATACCCACAC  
TGGCTGA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_006210 unedited  
 GGGCACTGTGTATACGACTCCTATAGGGCGGCTCGCGTATCTTCGCCCTTCCCCTGTTGA  
 CTCATGTTTTGGTTCTCCAGTAAAAATTTACTTAGAGAAATGCTGCCTCCAAAGCACTT  
 GTCTGCCACCAAACCTAAGAAGTCTGGGCCCAAATCTGTATGAGCTAGACAGTGACTT  
 GACTAAGGAGCCGGATGTCATCATAGGAGAAGGTCCAAGTACTGAGTTTTTTCATCA  
 GAGGTTTTCGGAACCTAATCTATGTGGAATTTGTTGGGCCTCGGAAGACCCTGATCAAAT  
 CCGAAAACCTCTGCCTCGATTGGTTGCAGCCGGAGACCCGCACCAAGGAGGAGATCATCGA  
 GCTCTTGGTCTTGGAGCAGTACCTGACCATCATCCCTGAAAAGCTCAAGCCTTGGGTGCG  
 AGCAAAAAAGCCGGAGAAGTGTGAGAAGCTCGTCACTCTGCTGGAGAATTACAAGGAGAT  
 GTACCAACCAGAAGACGACAACAACAGTGACGTGACCAGTGACGACGACATGACCCGGAA  
 CAGAAGAGAGTCTCACCACCTCACTCAGTCCATTCTTTCAGTGGTGACCCGGACTGGGA  
 CCGGAGGGGCAGAAGCAGAGACATGGAGCCACGAGACCCTGGTCCCACACCAGGAACCC  
 AAGAAGCAGGATGCCTCCGCGGGATCTTCCCTTCTGTGGTGGCGAAAACAAGCTTTGA  
 AATGGACAGAGAGACGACAGGGACTCCAGGGCTTATGAGTCCCGATCTCAGGATGCTGA  
 ATCATACCAAAATGTGGTGGACCTCGCTGAGGACAGGAAACCTCACACACATCCAGGACA  
 CATGGAAAACACAGGAGCTGCTCTCCCTCGAGTGCAGCTTGCTGAGACGATGGCCACTC  
 CCCACATGACGCAGGCCACTCATCAAGAAT

**3' Read Nucleotide Sequence:**

>OriGene 3' genomic read for NM\_006210 unedited  
 TGGCCGAATGCACCTTCAGGGCCGAGAGGCACCTGGGGTAGGGTCACAGGGATGCCAC  
 CCGGGATCTGTTCAAGAAACAGCTATGACCCGCGCCGCAATCTAGAGTCCAGTTTTTTTT  
 TTTTTTTTTTAATGCAAGTTAGACATGGAGTTAGAGGGTCAGATAAATAACGAAGAGAAT  
 TAAGTTAGCGATAGAAAGATCTAAGGATACTAGCTCCTGGGCACCTAGGGTGCAAATGA  
 CTTGTGGCAGCATAAGCTGATGCTGCACAGGGGACCCAAGCCATGTTGCTACTTGTCACT  
 TAAGGCAGGAAGCGCACAAAGGAAGTGTGAAAGGTTATTAGCCTGCAACATTATTTACA  
 GCATGAGAGCCTCTCCTACGGTTCTCAACCTTCATTAGGCACTACTGTGATCTAGTGATG  
 GTTGTAACCCATTCTTTAAAGGCAAAGATGTAAGATTTACAGGGAAAAGCTTCGGGTTTT  
 ATCAATTCATATCATCAAAACACATATTGAGTTGGTTAAAAAAAAAAAAAAAAACCCAGAAC  
 ACAAATGTGTAATATTTTTGCATGAGAACCACTTCAACAAACATAACATGTGGCAACCAA  
 TCAATCTGGGTACAAAAAGCCAATCCGTATATTGTAAGCCTTACACAGTATTAGGTTT  
 CAAAGTGTGGTGCAGATGAAATGGCTGCAGAAAGAAGCTAAAGTACTTATCTTTTCAA  
 CAGTAAGGAGTAAAGCCATGTTATCTATCATGCCTACAGCTTACAAGACTATTTAAGG  
 TAAGAAACAAAACATTTACTCAAAGATATTGACAGGGTTCAAATATGCACCAATAAATC  
 TTTCTCAGATCTAGACACTTAAATATATCAAATTTGTTGCTCTCTCTCAAAAAAAAA  
 AATCAAAGAATACAGGTAGTACCTCTGCAGAGTAACTGTACTGTTATCATATAAATCGA  
 T

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_006210

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_006210.1](#), [NP\\_006201.1](#)

**RefSeq Size:** 6371 bp

**RefSeq ORF:** 4767 bp

**Locus ID:** 5178

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

**Cytogenetics:** 19q13.43

**Protein Families:** Transcription Factors

**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]

Transcript Variant: This variant (1) encodes isoform 1. Variants 1 and 2 both encode the same isoform (1).