

## Product datasheet for **RG235597**

### **PEN2 (PSENER) (NM\_001281532) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PEN2 (PSENER) (NM\_001281532) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PSENER  
**Synonyms:** ACNINV2; MDS033; MSTP064; PEN-2; PEN2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG235597 representing NM\_001281532.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAACCTGGAGCGAGTGTCCAATGAGGAGAAATTGAACCTGTGCCGGAAGTACTACCTGGGGGGTTT
GCTTTCTGCCTTTTCTCTGGTTGGTCAACATCTTCTGGTTCTTCCGAGAGGCCTTCCTTGTCCCAGCC
TACACAGAACAGAGCCAAATCAAAGGCTATGTCTGGCGCTCAGCTGTGGGCTTCTCTTCTGGGTGATA
GTGCTCACCTCTGGATCACCATCTTCCAGATCTACCGGCCCGCTGGGGTGCCCTTGGGGACTACCTC
TCCTTACCATAACCCTGGGCACCCCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:** >Peptide sequence encoded by RG235597  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MNLERSVNEEKLNLCKRYLGGFAFLPFLWLVINIFWFFREAFVLPAYTEQSQIKGYVWRSVAVGFLFWVI
VLTSWITIFQIYRPRWGALGDYLSFTIPLGTP
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSDHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:** Sgfl-MluI

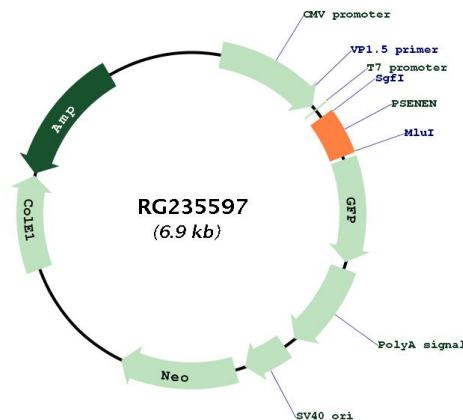


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**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001281532

**ORF Size:** 303 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](#)

|                          |   |
|--------------------------|---|
| <b>OTI Annotation:</b>   | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>       | 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).  |
| <b>RefSeq:</b>           | <a href="#">NM_001281532.3</a>  |
| <b>RefSeq Size:</b>      | 796 bp  |
| <b>RefSeq ORF:</b>       | 306 bp  |
| <b>Locus ID:</b>         | 55851   |
| <b>UniProt ID:</b>       | <a href="#">Q9NZ42</a>  |
| <b>Cytogenetics:</b>     | 19q13.12  |
| <b>Protein Families:</b> | Druggable Genome, Transmembrane   |
| <b>Protein Pathways:</b> | Alzheimer's disease, Notch signaling pathway  |
| <b>MW:</b>               | 12 kDa  |
| <b>Gene Summary:</b>     | Presenilins, which are components of the gamma-secretase protein complex, are required for intramembranous processing of some type I transmembrane proteins, such as the Notch proteins and the beta-amyloid precursor protein. Signaling by Notch receptors mediates a wide range of developmental cell fates. Processing of the beta-amyloid precursor protein generates neurotoxic amyloid beta peptides, the major component of senile plaques associated with Alzheimer's disease. This gene encodes a protein that is required for Notch pathway signaling, and for the activity and accumulation of gamma-secretase. Mutations resulting in haploinsufficiency for this gene cause familial acne inversa-2 (ACNINV2). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013] |