

Product datasheet for RC203272

PEN2 (PSENE1) (NM_172341) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: PEN2 (PSENE1) (NM_172341) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: PEN2
Synonyms: ACNINV2; MDS033; MSTP064; PEN-2; PEN2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203272 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACCTGGAGCGAGTGTCCAATGAGGAGAAATTGAACCTGTGCCGGAAGTACTACCTGGGGGGTTTG
CTTTCCTGCCTTTTCTCTGGTTGGTCAACATCTTCTGGTTCTTCCGAGAGGCCTTCTTGTCCAGCCTA
CACAGAACAGAGCCAAATCAAAGGCTATGTCTGGCGCTCAGCTGTGGCTTCTCTTCTGGGTGATAGT
CTCACCTCTGGATCACCATCTCCAGATCTACCGGCCCGCTGGGTGCCCTTGGGGACTACCTCTCT
TCACCATACCCCTGGGCACCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC203272 protein sequence
Red=Cloning site Green=Tags(s)
MNLERSVNEEKLNLCKRYLGGFAFLPFLWLVNIFWFFREAFLLVPAYTEQSQIKGYVWRSVAVGFLFWIV
LTSWITIFQIYRPRWGALGDYLSFTIPLGTP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6056_a02.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:



ACCN: NM_172341

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](#)

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

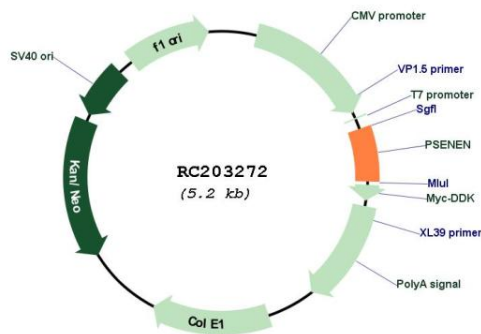
RefSeq: [NM_172341.4](#)

RefSeq Size: 834 bp

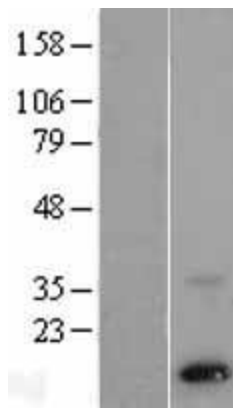
RefSeq ORF: 306 bp

Locus ID:	55851
UniProt ID:	Q9NZ42
Cytogenetics:	19q13.12
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease, Notch signaling pathway
MW:	12 kDa
Gene Summary:	<p>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]</p>

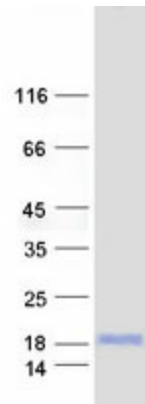
Product images:



Circular map for RC203272



Western blot validation of overexpression lysate (Cat# [LY403539]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203272 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSENEN protein (Cat# [TP303272]). The protein was produced from HEK293T cells transfected with PSENEN cDNA clone (Cat# RC203272) using MegaTran 2.0 (Cat# [TT210002]).