OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC119867

Presenilin 2 (PSEN2) (NM_000447) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Presenilin 2 (PSEN2) (NM_000447) Human Untagged Clone
Tag:	Tag Free
Symbol:	PSEN2
Synonyms:	AD3L; AD4; CMD1V; PS2; STM2
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None

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Fully Sequenced ORF:

>OriGene sequence for NM_000447 edited
CAGAGCAGGCATTTCCAGCAGTGAGGAGACAGCCAGAAGCAAGCTTTTGGAGCTGAAGGA
ACCTGAGACAGAAGCTAGTCCCCCCTCTGAATTTTACTGATGAAGAAACTGAGGCCACAG
AGCTAAAGTGACTTTTCCCAAGGTCGCCCAGCGAGGACGTGGGACTTCTCAGACGTCAGG
AGAGTGATGTGAGGGAGCTGTGTGACCATAGAAAGTGACGTGTTAAAAACCAGCGCTGCC
CTCTTTGAAAGCCAGGGAGCATCATTCATTTAGCCTGCTGAGAAGAAGAAACCAAGTGTC
CGGGATTCAGACCTCTCTGCGGCCCCAAGTGTTCGTGGTGCTTCCAGAGGCAGGGCTATG
CTCACATTCATGGCCTCTGACAGCGAGGAAGAAGTGTGTGATGAGCGGACGTCCCTAATG
TCGGCCGAGAGCCCCACGCCGCGCTCCTGCCAGGAGGGCAGGCAGGGCCCAGAGGATGGA
GAGAATACTGCCCAGTGGAGAAGCCAGGAGAACGAGGAGGACGGTGAGGAGGACCCTGAC
CGCTATGTCTGTAGTGGGGTTCCCGGGCGGCCGCCAGGCCTGGAGGAAGAGCTGACCCTC
AAATACGGAGCGAAGCATGTGATCATGCTGTTTGTGCCTGTCACTCTGTGCATGATCGTG
GTGGTAGCCACCATCAAGTCTGTGCGCTTCTACACAGAGAAGAATGGACAGCTCATCTAC
ACGCCATTCACTGAGGACACACCCTCGGTGGGCCAGCGCCTCCTCAACTCCGTGCTGAAC
ACCCTCATCATGATCAGCGTCATCGTGGTTATGACCATCTTCTTGGTGGTGCTCTACAAG
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CCCACCCTCTTGCTGACTGTCTGGAACTTCGGGGCAGTGGGCATGGTGTGCATCCACTGG
AAGGGCCCTCTGGTGCTGCAGCAGGCCTACCTCATCATGATCAGTGCGCTCATGGCCCTA
GTGTTCATCAAGTACCTCCCAGAGTGGTCCGCGTGGGTCATCCTGGGCGCCATCTCTGTG
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CAGGAGAGAAATGAGCCCATATTCCCTGCCCTGATATACTCATCTGCCATGGTGTGGACG
GTTGGCATGGCGAAGCTGGACCCCTCCTCTCAGGGTGCCCTCCAGCTCCCCTACGACCCG
GAGATGGAAGAAGACTCCTATGACAGTTTTGGGGAGCCTTCATACCCCGAAGTCTTTGAG
CCTCCCTTGACTGGCTACCCAGGGGAGGAGCTGGAGGAAGAGGAGGAAAGGGGCGTGAAG
CTTGGCCTCGGGGACTTCATCTTCTACAGTGTGCTGGTGGGCAAGGCGGCTGCCACGGGC
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TTCGGGCTCATCTTTTACTTCTCCACGGACAACCTGGTGCGGCCGTTCATGGACACCCTG
GCCTCCCATCAGCTCTACATCTGAGGGACATGGTGTGCCACAGGCTGCAAGCTGCAGGGA
ATTTTCATTGGATGCAGTTGTATAGTTTTACACTCTAGTGCCATATATTTTTAAGACTTT
TCTTTCCTTAAAAAATAAAGTACGTGTTTACTTGGTGAGGAGGAGGCAGAACCAGCTCTT
TGGTGCCAGCTGTTTCATCACCAGACTTTGGCTCCCGCTTTGGGGAGCGCCTCGCTTCAC
GGACAGGAAGCACAGCAGGTTTATCCAGATGAACTGAGAAGGTCAGATTAGGGTGGGGAG
AAGAGCATCCGGCATGAGGGCTGAGATGCGCAAAGAGTGTGCTCGGGAGTGGCCCCTGGC
ACCTGGGTGCTCTGGCTGGAGAGGAAAAGCCAGTTCCCTACGAGGAGTGTTCCCAATGCT
TTGTCCATGATGTCCTTGTTATTTTATTGCCTTTAGAAACTGAGTCCTGTTCTTGTTACG
GCAGTCACACTGCTGGGAAGTGGCTTAATAGTAATATCAATAAATAGATGAGTCCTGTTA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000447 unedited
NNNNGGGGGGNNNNNNNNCTCCCCNCNNNCGGTTCAAAATTGNATACGACTCATATAGGC
GGCCGCGAAATTCGCACGAGGCAGAGCAGGCATTTCCAGCAGTGAGGAGACAGCCAGAAG
CAAGCTTTTGGAGCTGAAGGAACCTGAGACAGAAGCTAGTCCCCCCTCTGAATTTTACTG
ATGAAGAAACTGAGGCCACAGAGCTAAAGTGACTTTTCCCAAGGTCGCCCAGCGAGGACG
TGGGACTTCTCAGACGTCAGGAGAGTGATGTGAGGGAGCTGTGTGACCATAGAAAGTGAC
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GAGAAGAAGAAACCAAGTGTCCGGGATTCAGACCTCTCTGCGGCCCCAAGTGTTCGTGGT
GCTTCCAGAGGCAGGGCTATGCTCACATTCATGGCCTCTGACAGCGAGGAAGAAGTGTGT
GATGAGCGGACGTCCCTAATGTCGGCCGAGAGCCCCACGCCGCGCTCCTGCCAGGAGGGC
AGGCAGGGCCCAGAGGATGGAGAGAATACTGCCCAGTGGAGAAGCCAGGAGAACGAGGAG
GACGGTGAGGAGGACCCTGACCGCTATGTCTGTAGTGGGGTTCCCGGGCGGNCGNCAGGC
CTGGAGGAAGAGCTGACCCTCANATACNGAGCGAAGCATGTGATCATGCNTGTTGTGCCT
GTCACTCTGTGCATGATCGTGGTGGTAGCCACCATCAAGTCTGTGCGCTTCTACACAGAG
AAGAATGGACAGCTCATCTACACGCCATTCACTTGAGACACACCCCTCGTGGGGCAGCGC
CTNCTCAACTNCGTGCTGAACACCCTCATCATGATCAGCGTCATCGTGGTTATGACCATC
TTCTGGGTGTGCTCTACAGTACCGTGCTACAAGTCATCATGGCTGGNTGACATGTCTCAC
TGAAGCTGCGGTCCTTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000447 unedited
TCCCGGCCAGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGGATCTGTTCAGG
AAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTCAAGA
TTCTAACAGGACTCATCTATTTATTGATATTACTATTAAGCCACTTCCCAGCAGTGTGAC
TGCCGTAACAAGAACAGGACTCAGTTTCTAAAGGCAATAAAATAACAAGGACATCATGGA
CAAAGCATTGGGAACACTCCTCGTAGGGAACTGGCTTTTCCTCTCCAGCCAGAGCACCCA
GGTGCCAGGGGCCACTCCCGAGCACACTCTTTGCGCATCTCAGCCCTCATGCCGGATGCT
CTTCTCCCCACCCTAATCTGACCTTCTCAGTTCATCTGGATAAACCTGCTGTGCTTCCTG
TCCGTGAAGCGAGGCGCTCCCCAAAGCGGGAGCCAAAGTCTGGTGATGAAACAGCTGGCA
CCAAAGAGCTGGTTCTGCCTCCTCCTCACCAAGTAAACACGTACTTTATTTTTTAAGGAA
AGAAAAGTCTTAAAAATATATGGCACTAGAGTGTAAAACTATACAACTGCATCCAATGAA
AATTCCCTGCAGCTTGCAGCCTGTGGCACACCATGTCCCTCANATGTAGAGCTGATGGGA
GGCCAGGGTGTCCATGAACGGCCGCACCAGGTTGTCCGTGGAGAAGTAAAAGATGAGCCC
GAACGTGATGGANATGGNGAGGGCGGGCAGCCN

Restriction Sites: NotI-NotI

ACCN: NM_000447

Insert Size: 2250 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_000447.2.

RefSeq: NM_000447.1, NP_000438.1

RefSeq Size: 2236 bp

RefSeq ORF: 1347 bp

Locus ID:	5664
UniProt ID:	P49810
Domains:	Presenilin, PSN
Protein Families:	Druggable Genome, Protease, Transmembrane
Protein Pathways:	Alzheimer's disease, Notch signaling pathway
Gene Summary:	Alzheimer's disease (AD) patients with an inherited form of the disease carry mutations in the presenilin proteins (PSEN1 or PSEN2) or the amyloid precursor protein (APP). These disease-linked mutations result in increased production of the longer form of amyloid-beta (main component of amyloid deposits found in AD brains). Presenilins are postulated to regulate APP processing through their effects on gamma-secretase, an enzyme that cleaves APP. Also, it is thought that the presenilins are involved in the cleavage of the Notch receptor such that, they either directly regulate gamma-secretase activity, or themselves act are protease enzymes. Two alternatively spliced transcript variants encoding different isoforms of PSEN2 have been identified. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (1) encodes the longer isoform (1).