

Product datasheet for **SC324404**

Presenilin 2 (PSEN2) (NM_012486) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Presenilin 2 (PSEN2) (NM_012486) Human Untagged Clone
Tag:	Tag Free
Symbol:	Presenilin 2
Synonyms:	AD3L; AD4; CMD1V; PS2; STM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_012486.1
 CCAGCAGTGAGGAGACAGCCAGAAGCAAGCTTTTGGAGCTGAAGGAACCTGAGACAGAAG
 CTAGTCCCCCTCTGAATTTTACTGATGAAGAACTGAGGCCACAGAGCTAAAGTGACTT
 TTCCCAAGGTCGCCAGCGAGGACGTGGGACTTCTCAGACGTGAGGAGAGTGATGTGAGG
 GAGCTGTGTGACCATAGAAAGTGACGTGTTAAAAACCAGCGTGCCCTCTTTGAAAGCCA
 GGGAGCATCATTCAATTTAGCCTGCTGAGAAGAAGAAACCAAGTGTCGGGATTGACAGCT
 CTCTGCGGCCCAAGTGTTCTGGTGTGAAGCTCAGCCCTGAGGGTCTCTGGACAGCGA
 TCACTCAGCCTCTGGACAGCGATCACTCAGCCTCTGGACAGACAGCGATCACTCAGCCTC
 TGGACAGCGATCACTCAGCCTCTGGACAGCGATCACTCAGCCTCTGGACAGCGATCACTC
 AGCCTCTGGACAGCGATAACTCAGCCTCTGTCCCGTCTGAGATGTTGGCAGGGACTGTC
 AGATTTGCCAGGCATTGTTTGAAGTTCTTCCAGCCAGAAACCTGCATGTGTAGATTTT
 GGTGCTTCCAGAGGCAGGGCTATGCTCACATTCATGGCCTCTGACAGCGAGGAAGAAGTG
 TGTGATGAGCGGACGTCCCTAATGTGCGCCGAGAGCCCCACGCCGCTCTGCCAGGAG
 GGCAGGCAGGGCCAGAGGATGGAGAGAATACTGCCAGTGGAGAAGCCAGGAGAACGAG
 GAGGACGGTGAGGAGACCTGACCGCTATGTCTGTAGTGGGGTCCCGGGCCGCCCA
 GGCTGGAGGAAGAGTGACCTCAAATACGGAGCGAAGCATGTGATCATGCTGTTTGTG
 CCTGTCACTCTGTGCATGATCGTGGTGGTAGCCACCATCAAGTCTGTGCGCTTCTACACA
 GAGAAGAATGGACAGCTCATCTACACGCCATCACTGAGGACACACCCTCGGTGGGCCAG
 CGCCTCTCAACTCCGTGCTGAACACCCTCATCATGATCAGCGTCATCGTGGTTATGACC
 ATCTTCTTGGTGGTGTCTACAAGTACCCTGCTACAAGTTTCCATGGCTGGTTGATC
 ATGTCTTCACTGATGCTGCTGTTCTTCACTATATCTACCTTGGGGAAGTGCCTAAG
 ACCTACAATGTGGCCATGGACTACCCACCCTTGTGCTGACTGTCTGGAACCTCGGGCA
 GTGGCATGGTGTGCATCCACTGGAAGGGCCCTCTGGTGTGCAGCAGGCCTACCTATC
 ATGATCAGTGCGCTCATGGCCCTAGTGTTCATCAAGTACCTCCAGAGTGGTCCGCGTGG
 GTCATCTGGGCCCATCTCTGTGTATGATCTCGTGGCTGTGCTGTGCCAAAGGGCT
 CTGAGAATGCTGGTAGAACTGCCAGGAGAGAAATGAGCCATATTCCCTGCCCTGATA
 TACTCATCTGCCATGGTGTGGACGGTGGCATGGCGAAGCTGGACCCCTCTCTCAGGGT
 GCCCTCCAGTCCCCTACGACCCGGAGATGGAAGAAGACTCCTATGACAGTTTTGGGGAG
 CCTTCATACCCGAAGTCTTTGAGCCTCCCTTGACTGGCTACCCAGGGGAGGAGCTGGAG
 GAAGAGGAGGAAAGGGCGTGAAGCTTGGCCTCGGGACTTCATCTTCTACAGTGTGCTG
 GTGGCAAGGCGCTGCCACGGGACGGGGACTGGAATACCACGCTGGCCTGCTTCGTG
 GCCATCCTCATTGGCTTGTGCTGACCCTCTGCTGCTTGTGTTCAAGAAGGCGCTG
 CCCGCCCTCCCATCTCCATCACGTTTCGGGCTCATCTTTTACTTCTCCACGGACAACCTG
 GTGCGGCCGTTTATGGACACCCTGGCCTCCCATCAGCTCTACATCTGAGGGACATGGTGT
 GCCACAGGCTGCAAGCTGCAGGGAATTTTATTGGATGCAGTTGTATAGTTTTACTCT
 AGTGCCATATATTTTAAAGACTTTTCTTCTTAAAAATAAAGTACGTGTTTACTTGGT
 GAGGAGGAGGCAGAACCAGCTCTTTGGTCCAGCTGTTTTCATCACCAGACTTTGGCTCCC
 GCTTTGGGAGCGCTCGCTTACGGACAGGAAGCACAGCAGGTTTATCCAGATGAACTG
 AGAAGTCAAGATTAGGGTGGGAGAAAGAGCATCCGGCATGAGGGCTGAGATGCGCAAAGA
 GTGTGCTCGGGAGTGGCCCTGGCACCTGGGTGCTCTGGCTGGAGAGGAAAAGCCAGTTC
 CCTACGAGGAGTGTCCCAATGCTTTGTCCATGATGCTCTTGTATTTTATTGCCTTTAG
 AAAGTCAAGTCTGTTCTTGTACGGCAGTCACTGCTGGGAAGTGGCTTAATAGTAATA
 TCAATAAATAGATGAGTCTGTTAGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_012486

OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none"> 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_012486.1 , NP_036618.1
RefSeq Size:	2233 bp
RefSeq ORF:	1344 bp
Locus ID:	5664
UniProt ID:	P49810
Cytogenetics:	1q42.13
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 as protease enzymes. Two alternatively spliced transcript variants encoding different isoforms of PSEN2 have been identified. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) uses an alternate splice acceptor site at exon 10 compared to transcript variant 1, resulting in an isoform (2) that is 1 aa shorter than isoform 1.