

## Product datasheet for **MC203369**

### **Psen1 (NM\_008943) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Psen1 (NM_008943) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Psen1
Synonyms:	Ad3h; PS-1; PS1; S182
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC071233  
 CCCACGCGTCCGCGGACGCGTGGGTGCGGAGTATTCGTGCGAAACAAAACAGCGGCAGCTGAGGCGGAAA  
 CCTAGGCTGCGAGCCGGCCGCCGGGCGGAGAGAGAAGGAACCAACACAAGACAGCAGCCCTTCGAGG  
 TCTTTAGGCAGCTTGGAGGAGAACACATGAGAGAAAGAATCCCAAGAGTTTTGTTTTCTTTGAGAAGGT  
 ATTTCTGTCCAGCTGCTCCAATGACAGAGATACCTGCACCTTTGTCTACTTCCAGAATGCCAGATGTC  
 TGAGGACAGCCACTCCAGCAGCGCCATCCGGAGCCAGAATGACAGCCAAGAACGGCAGCAGCAGCATGAC  
 AGGCAGAGACTTGACAACCCCTGAGCCAATCTAATGGGCGGCCCCAGAGTAACCTCAAGACAGTGGTGG  
 AACAAAGATGAGGAGGAAGACGAAGAGCTGACATTGAAATATGGAGCCAAGCATGTCATCATGCTCTTTGT  
 CCCCCTGACCCTCTGCATGGTCTGCTGCTGGCCACCATCAAATCAGTCAGCTTCTATACCCGGAAGGAC  
 GGTGAGCTAATCTACACCCATTACAGAAGACTGAGACTGTAGGCCAAAGAGCCCTGCACTCGATCC  
 TGAATGCGGCCATCATGATCAGTGTATTGTCATTATGACCATCCTCCTGGTGGTCTGTATAAATACAG  
 GTGCTACAAGGTCATCCACGCTGGCTTATTATTTTCTCTGTTGTTGCTGTTCTTTTTTTCGTTTATT  
 TACTTAGGGGAAGTATTTAAGACCTACAATGTCGCGGTGGACTACGTTACAGTAGCACTCCTAATCTGGA  
 ATTTTGGTGTGGTCGGGATGATTGCCATCCACTGAAAGGCCCTTCGACTGCAGCAGGCGTATCTCAT  
 TATGATCAGTGCCTCATGGCCCTGGTATTTATCAAGTACCTCCCGAATGGACCGCATGGCTCATCTTG  
 GCTGTGATTTTCAATATGATTTGGTGGCTGTTTTATGTCCCAAAGGCCACTTCGTATGCTGGTTGAAA  
 CAGCTCAGGAAAGAAATGAGACTCTTTCCAGCTCTTATCTATTCCTCAACAATGGTGTGGTTGGTGAA  
 TATGGCTGAAGGAGACCCAGAAGCCAAAGGAGGGTACCAAGAACCCCAAGTATAACACACAAAGAGCG  
 GAGAGAGAGACACAGGACAGTGGTCTGGGAACGATGATGGTGGCTTCAGTGAGGAGTGGGAGGCCAAA  
 GAGACAGTCACTGGGGCTCATCGCTCCACTCCCGAGTCAAGAGCTGCTGTCCAGGAACTTCTGGGAG  
 CATTCTAACGAGTGAAGACCCGGAGGAAAGAGGAGTAAACTTGGACTGGGAGATTTTCTTTTCTACAGT  
 GTTCTGGTTGGTAAGGCCTCAGCAACCGCCAGTGGAGACTGGAACACAACCATAGCCTGCTTTGTAGCCA  
 TACTGATCGGCCCTGTGCCTTACATTACTCCTGCTCGCCATTTTCAAGAAAGCGTTGCCAGCCCTCCCCA  
 CTCATACCTTCGGGCTCGTGTCTACTTCGCCACGGATTACCTTGTGCAGCCCTTCATGGACCAACTT  
 GCATTCATCAGTTTTATATCTAGCCTTTCTGCAGTTAGAACATGGATGTTTTCTTTGATTATCAAAA  
 ACACAAAAACAGAGAGCAAGCCCGAGGAGGAGACTGGTACTTTCTGTGTCTCAGCTAACAAAGGCAG  
 GACTCCAGCTGGACTTCTGCAGCTTCTTCCGAGTCTCCCTAGCCACCCGCACTACTGGACTGTGGAAGG  
 AAGCGTCTACAGAGAACGGTTTCCAACATCCATCGCTGCAGCAGACGGTGTCCCTCAGTACTTGAGAGA  
 CAAGGACAAGGAAATGTGCTGGGCAAGGAGCTGCCGTGCTGTAGCTTTGACCCGTGGGCATGGAGA  
 TTTACCCGCACTGTGAACCTCTCTAAAGGTTAAACAAAGTGAAGTGAACCAACAGAGCTGCCATCTTCCA  
 CACCATGTTGAAATAAAACACGCTCTAGCTGAACCTTACTGTCCAGGAGGTTCCGTGTGGAGGTGGCA  
 CTGGGCCGGGCTCCCTCTCAGGCTCTTTTGTGCCACTTGTAAAGTTTAAATAAGGACACCGCCCTACA  
 CAAACCTCACCCCTGTCATCAGTACTGACCACTTTTGTCTCAAACCTCTCACTATTATCTGTG  
 GTTGCCGTTTTCTCCAAGGCCAGCCTGGACGAATTTGGGGTGTCTATCCTGAGAGTTGTAACCTCAA  
 CTTCCAAGTTTTATTTTTCTTGAATGATGGATCTATTGCTCAACAGTCCCTGTATCCTTAAGTGACT  
 TCTGGGTTTCCACAAATTCCTCACTTTTAGACACACTTAAGCTTACTTCTGGCCTGGATGCTTCTCT  
 CCCTGTCTCTCCCTTGCACACAGCGGTTCCCTGACAGCAGACAAGGCAGCTCTGGGAGGTAGCTAGTAT  
 CCAATAACCCAGGGGTTTCCCTCATGTGATGCAAACTACTACGTGTCCAACCAATCAGTGTGTCAACGGGC  
 TGCCATAGCTCCTTCGATGGCAAATAGGATGTGTGCCCAAAGAATTAAGCGATGAGTGGCTGGTGAAAA  
 AA  
 AAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** RsrII-NotI  
**ACCN:** NM\_008943  
**Insert Size:** 1404 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).

<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>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC071233</a> , <a href="#">AAH71233</a>
<b>RefSeq Size:</b>	2750 bp
<b>RefSeq ORF:</b>	1404 bp
<b>Locus ID:</b>	19164
<b>UniProt ID:</b>	<a href="#">P49769</a>
<b>Cytogenetics:</b>	12 38.84 cM
<b>Gene Summary:</b>	Catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (amyloid-beta precursor protein). Requires the presence of the other members of the gamma-secretase complex for protease activity (By similarity). Plays a role in Notch and Wnt signaling cascades and regulation of downstream processes via its role in processing key regulatory proteins, and by regulating cytosolic CTNNB1 levels (PubMed:10421573, PubMed:11517342). Stimulates cell-cell adhesion via its interaction with CDH1; this stabilizes the complexes between CDH1 (E-cadherin) and its interaction partners CTNNB1 (beta-catenin), CTNND1 and JUP (gamma-catenin) (PubMed:11226248). Under conditions of apoptosis or calcium influx, cleaves CDH1 (PubMed:11953314). This promotes the disassembly of the complexes between CDH1 and CTNND1, JUP and CTNNB1, increases the pool of cytoplasmic CTNNB1, and thereby negatively regulates Wnt signaling (PubMed:11226248). Required for normal embryonic brain and skeleton development, and for normal angiogenesis (PubMed:9160754, PubMed:10421573, PubMed:12834865). Mediates the proteolytic cleavage of EphB2/CTF1 into EphB2/CTF2 (PubMed:17428795). The holoprotein functions as a calcium-leak channel that allows the passive movement of calcium from endoplasmic reticulum to cytosol and is involved in calcium homeostasis (PubMed:16959576). Involved in the regulation of neurite outgrowth (By similarity). Is a regulator of presynaptic facilitation, spike transmission and synaptic vesicles replenishment in a process that depends on gamma-secretase activity. It acts through the control of SYT7 presynaptic expression (PubMed:30429473).[UniProtKB/Swiss-Prot Function]