

## Product datasheet for **MC228809**

### App (NM\_001198825) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	App (NM_001198825) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	App
Synonyms:	Abeta; Abpp; Adap; Ag; betaApp; Cvap; E030013M08Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228809 representing NM\_001198825  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTGCCAGCTTGGCACTGCTCTGCTGGCCGCTGGACGGTTCGGGCTCTGGAGGTACCCACTGATG  
 GCAACGCCGGGCTGCTGGCAGAACCCAGATCGCCATGTTCTGTGGTAACTCAACATGCACATGAATGT  
 GCAGAATGGAAAGTGGGAGTCAGACCCGTCAGGGACAAAACCTGCATTGGCACCAAGGAGGGCATCTTG  
 CAGTACTGCCAAGAGGTCTACCCTGAACTGCAGATCACAAACGTGGTGGAAAGCCAACCAGCCAGTGACCA  
 TCCAGAAGTGGTCAAGCGGGGCCGAAGCAGTGAAGACACACACCCACATCGTGATTCCTTACCCTTG  
 CCTAGTTGGTGGTGTGAGCGACGCCCTTCTCGTGCCCGACAAGTGAAGTTCCTACACCAGGAGCGG  
 ATGGATGTTTGTGAGACCCATCTTCACTGGCACACCGTCGCCAAAGAGACATGCAGCGAGAAGAGCACTA  
 ACTTGCACGACTATGGCATGCTGCTGCCCTGCGGCATCGACAAGTTCGAGGGGTAGAGTTTGTATGCTG  
 CCCGTTGGCCGAGAAAGCGACAGCGTGGATTCTGCGGATGCAGAGGAGGATGACTCTGATGCTGTTGG  
 GGTGGAGCGGACACAGACTACGCTGATGGCGGTGAAGACAAAGTGTAGAAAGTCCGCGAAGAGGAGGAAG  
 TGGCTGATGTTGAGGAAGAGGAAGCTGATGATGATGAGGATGTGGAGGATGGGGACGAGGTGGAGGAGGA  
 GGCCGAGGAGCCCTACGAAGAGGCCACCCAGAGAAACAACCAGCACTGCCACCACCACCAACCACCACT  
 GAGTCCGTGGAGGAGGTGGTCCGAGAGGTGTGCTCTGAACAAGCCGAGACCGGGCCATGCCGCGCAATGA  
 TCTCCCGTGGTACTTTGATGTCCTGAAGGGAAGTGTGTCCATTCTTTTACGGCGGATGTGGCGGCA  
 CAGGAACAACCTTTGACACGGAAGTACTGCATGGCGGTGTGTGGCAGCGTGTTCACGACAGCAGCC  
 AGCACCCCGACCGCTGCAAGTACCTGGAGACACCCGGGACGAGAACGAGCATGCCATTTCCAGA  
 AAGCCAAAGAGAGGCTGGAAGCCAAAGCACCCGAGAGAGAATGTCCAGGTCATGAGAGAATGGGAAGGCG  
 AGAGCGTCAAGCCAAGAAGTTCGCCAAAGCTGACAAGAAGGCGTTATCCAGCATTTCCAGGAGAAAGTG  
 GAATCTCTGGAACAGGAAGCAGCAATGAGAGACAGCAGCTTGTAGAGACACACATGGCCAGAGTTGAAG  
 CCATGCTCAATGACCGCCGCGCTGGCCCTCGAGAATTACATCACTGCACTGCAGGCGGTGCCCAAG  
 GCCTCATCATGTGTTCAACATGCTGAAGAAGTACGTCCGTGCGGAGCAGAAAGACAGACAGCACACCCTA  
 AAGCATTTTGAACATGTGCGCATGGTGGACCCCAAGAAAGCTGCTCAGATCCGGTCCCAGGTTATGACAC  
 ACCTCCGTGTGATCTACGAGCGCATGAACCAGTCTCTGTCCTGCTCTACAATGTCCTGCGGTGGCTGA  
 GGAGATCAAGATGAAGTCGATGAGCTGCTTCAAGAGGAGCAGAACTACTCCGACGATGTCTTGCCCAAC  
 ATGATCAGTGAGCCAGAATCAGCTACGGAACGACGCTCTCATGCCTTCGCTGACGAAACCAAGACCA  
 CCGTGGAGCTCCTCCCGTGAATGGGAATTCAGCCTGGATGACCTCCAGCCGTGGCACCCCTTTGGGGT  
 GGACTCTGTGCCAGCAATACCGAAAATGAAGTTCTGGGCTGACAAACATCAAGACGGAAGAGATCTCG  
 GAAGTGAAGATGGATGCAGAATTCGGACATGATTCAGGATTTGAAGTCCGCCATCAAAAAGTGGTGTCT  
 TTGCTGAAGATGTGGTTGCAACAAAGCGCCATCATCGGACTCATGGTGGGCGGCGTTGTCATAGCAAC  
 CGTGATTGTCATACCCTGGTGTGTTGAAGAAGAAACAGTACACATCCATCCATCATGGCGTGGTGGAG  
 GTCGACGCCGCGTGACCCAGAGGAGCGCCATCTCTCCAAGATGCAGCAGAACGGATATGAGAATCCAA  
 CTTACAAGTCTTTGAGCAAATGCAGAACTAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001198825

**Insert Size:** 2202 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>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u><a href="#">NM_001198825.1</a></u> , <u><a href="#">NP_001185754.1</a></u>
<b>RefSeq Size:</b>	3266 bp
<b>RefSeq ORF:</b>	2202 bp
<b>Locus ID:</b>	11820
<b>Cytogenetics:</b>	16 46.92 cM
<b>Gene Summary:</b>	<p>Functions as a cell surface receptor and performs physiological functions on the surface of neurons relevant to neurite growth, neuronal adhesion and axonogenesis. Interaction between APP molecules on neighboring cells promotes synaptogenesis. Involved in cell mobility and transcription regulation through protein-protein interactions. Can promote transcription activation through binding to APBB1-KAT5 and inhibit Notch signaling through interaction with Numb. Couples to apoptosis-inducing pathways such as those mediated by G(O) and JIP. Inhibits G(o) alpha ATPase activity (By similarity). Acts as a kinesin I membrane receptor, mediating the axonal transport of beta-secretase and presenilin 1. May be involved in copper homeostasis/oxidative stress through copper ion reduction. Can regulate neurite outgrowth through binding to components of the extracellular matrix such as heparin and collagen I and IV (By similarity). The splice isoforms that contain the BPTI domain possess protease inhibitor activity. Induces a AGER-dependent pathway that involves activation of p38 MAPK, resulting in internalization of amyloid-beta peptide and leading to mitochondrial dysfunction in cultured cortical neurons (By similarity). Provides Cu(2+) ions for GPC1 which are required for release of nitric oxide (NO) and subsequent degradation of the heparan sulfate chains on GPC1.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (5) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (5) has the same N- and C-termini but is shorter compared to isoform 1.</p>