

Product datasheet for **MC228854**

App (NM_001198824) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	App (NM_001198824) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	App
Synonyms:	Abeta; Abpp; Adap; Ag; betaApp; Cvap; E030013M08Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC228854 representing NM_001198824
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGCCAGCTTGGCACTGCTCTGCTGGCCGCTGGACGGTTCGGGCTCTGGAGGTACCCACTGATG
 GCAACGCCGGGCTGCTGGCAGAACCCAGATCGCCATGTTCTGTGGTAACTCAACATGCACATGAATGT
 GCAGAATGGAAAGTGGGAGTCAGACCCGTCAGGGACAAAACCTGCATTGGCACCAAGGAGGGCATCTTG
 CAGTACTGCCAAGAGGTCTACCCTGAACTGCAGATCACAAACGTGGTGGAAAGCCAACCAGCCAGTGACCA
 TCCAGAACTGGTGAAGCGGGGCCGAAGCAGTGAAGACACACACCCACATCGTGATTCTTACCCTTG
 CCTAGTTGGTGAGTTTGTGAGCGACGCCCTTCTCGTGCCCGACAAGTGAAGTTCCTACACCAGGAGCGG
 ATGGATGTTTGTGAGACCCATCTTCACTGGCACACCGTCGCCAAAGAGACATGCAGCGAGAAGAGCACTA
 ACTTGCACGACTATGGCATGCTGCTGCCCTGCGGCATCGACAAGTTCGAGGGGTAGAGTTTGTATGCTG
 CCCGTTGGCCGAGGAAAGCGACAGCGTGGATTCTGCGGATGCAGAGGAGGATGACTCTGATGCTGTGGTGG
 GGTGGAGCGGACACAGACTACGCTGATGGCGGTGAAGACAAGTGTAGAAGTCCGCCAAGAGGAGGAAAG
 TGCTGATGTTGAGGAAGAGGAAGCTGATGATGATGAGGATGTGGAGGATGGGGACGAGGTTGAGGAGGA
 GGCCGAGGAGCCCTACGAAGAGGCCACCCAGAGAAACAACCAGCACTGCCACCACCACCAACCACCACT
 GAGTCCGTGGAGGAGGTGGTCCGAGAGGTGTGCTCTGAACAAGCCGAGACCGGGCCATGCCGCGCAATGA
 TCTCCCGTGGTACTTTGATGTCCTGAAGGAAAGTGTGTCCCATTCTTTACGGCGGATGTGGCGGCAA
 CAGGAACAACCTTGTACACGGAAGTACTGCATGGCGGTGTGGCAGCGTGTTCACACGACAGCAGCC
 AGCACCCCGACCGCTGCAAGTACCTGGAGACACCCGGGACGAGAACGAGCATGCCATTTCCAGA
 AAGCCAAAGAGAGGCTGGAAGCCAAAGCACCAGAGAGAATGTCCAGGTCATGAGAGAATGGGAAGAGGG
 AGAGCGTCAAGCCAAGAAGTTCGCCAAAGCTGACAAGAAGGCCGTTATCCAGCATTTCCAGGAGAAAGTG
 GAATCTCTGGAACAGGAAGCAGCCAATGAGAGACAGCAGCTTGTAGAGACACACATGGCCAGAGTTGAAG
 CCATGCTCAATGACCGCCGCCGCTGGCCCTCGAGAATTACATCACTGCACTGCAGGCGGTGCCCCAAAG
 GCCTCATCATGTGTTCAACATGCTGAAGAAGTACGTCCGTGCGGAGCAGAAAGACAGACAGCACACCCTA
 AAGCATTTTGAACATGTGCGCATGGTGGACCCCAAGAAAGCTGCTCAGATCCGGTCCCAGGTTATGACAC
 ACCTCCGTGTGATCTACGAGCGCATGAACCAGTCTCTGTCCCTGCTCTACAATGTCCCTGCGGTGGCTGA
 GGAGATTAAGATGAAGTCGATGAGCTGCTTCAAGAGGAGCAGAACTACTCCGACGATGTCTTGGCCAA
 ATGATCAGTGAGCCAGAATCAGCTACGGAACGACGCTCTCATGCCCTTCTGCTGACGGAACCAAGACCA
 CCGTGGAGCTCCTCCCGTGAATGGGGAATTCAGCCTGGATGACCTCCAGCCGTGGCACCCCTTTGGGGT
 GGACTCTGTGCCAGCAATACCGAAAATGAAGTCGAGCCTGTTGACGCCCGCCCGCTGCTGACCAGGA
 CTGACCACTCGACCAGGTTCTGGGCTGACAAACATCAAGACGGAAGAGATCTCGGAAGTGAAGATGGATG
 CAGAATTCGGACATGATTCAGGATTTGAAGTCCGCCATCAAAAACCTGGTGTCTTTGCTGAAGATGTGGG
 TTCGAACAAGGCGCCATCATCGGACTCATGGTGGCGGCGTTGTCATAGCAACCGTATTGTCATCACC
 CTGGTGTGTTGAAGAAGAAACAGTACACATCCATCCATCATGGCGTGGTGGAGGTCGACGCCCGCTGA
 CCCCAGAGGAGCGCCATCTCTCAAGATGCAGCAGAACGGATATGAGAATCCAACCTACAAGTTCTTTGA
 GCAAATGCAGAACTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_001198824
 Insert Size: 2256 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:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001198824.1</u> , <u>NP_001185753.1</u>
RefSeq Size:	3320 bp
RefSeq ORF:	2256 bp
Locus ID:	11820
Cytogenetics:	16 46.92 cM
Gene Summary:	<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 (3) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (3) has the same N- and C-termini but is shorter compared to isoform 1.</p>