

## Product datasheet for **MC202511**

### App (NM\_007471) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	App (NM_007471) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	App
Synonyms:	Abeta; Abpp; Adap; Ag; betaApp; Cvap; E030013M08Rik
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC070409 sequence for NM\_007471  
 GTTTCCTCGGCGGGAGGCGAGAGCACCGGGAGCAGAGCGAGCGGGGCCACCGGAGACGGCGGGCGG  
 CGGCGCGGACACAGCCAGGGCGGGCGGATCTTCCACTCGCACACGGAGCACTCGGTGGCCACGCAGGA  
 TCACGATGCTGCCAGCTTGGCACTGCTCTGCTGGCCGCTGGACGGTTCGGGCTCTGGAGGTACCCAC  
 TGATGGCAACGCCGGGCTGCTGGCAGAACCCAGATCGCCATGTTCTGTGGTAAACTCAACATGCACATG  
 AATGTGCAGAATGAAAGTGGGAGTCAGACCCGTCCAGGACCAAAACCTGCATTGGCACCAAGGAGGGCA  
 TCTTGCAGTACTGCCAAGAGGTCTACCTGAACTGCAGATCACAACCTGGTGGAAAGCCACCCAGCCAGT  
 GACCATCCAGAAGTGGTGAAGCGGGCCGCAAGCAGTGAAGACACACCCACATCGTGATTCCCTTAC  
 CGTTGCCCTAGTTGGTGAAGTTTGTGAGCGACGCCCTTCTCGTGCCCGACAAGTGAAGTTCCTACACCAGG  
 AGCGGATGGATGTTTGTGAGACCATCTTCACTGGCACACCGTCGCCAAAGAGACATGCAGCGAGAAGAG  
 CACTAAGTGCACGACTATGGCATGCTGCTGCCCTGCGGCATCGACAAGTTCGAGGGGTAGAGTTTGT  
 TGCTGCCCGTGGCCGAGGAAAGCGACAGCGTGGATTCTGCGGATGCAGAGGAGGATGACTCTGATGCT  
 GGTGGGTGGAGCGGACACAGACTACGCTGATGGCGGTGAAGACAAAGTGTAGAAGTCCCGAAGAGGA  
 GGAAGTGGCTGATGTTGAGGAAGAGGAAGCTGATGATGATGAGGATGTGGAGGATGGGGACGAGGTGGAG  
 GAGGAGCCGAGGAGCCCTACGAAGAGGCCACCGAGAGAACAACCAGCACTGCCACCACCACCAACCA  
 CCACTGAGTCCGTGGAGGAGGTGGTCCGAGTTCACACGACAGCAGCCAGCACCCCGACGCGCTCGACAA  
 GTACCTGGAGACACCCGGGACGAGAACGAGCATGCCATTTCCAGAAAGCCAAAGAGAGGCTGGAAGCC  
 AAGCACCGAGAGAGAATGTCCCAGGTCATGAGAGAATGGGAAGAGGCAGAGCGTCAAGCCAAGAAGTTC  
 CCAAAGCTGACAAGAAGGCCGTTATCCAGCATTTCAGGAGAAAGTGGAAATCTCTGGAACAGGAAGCAGC  
 CAATGAGAGACAGCAGCTGTAGAGACACATGGCCAGAGTTGAAGCCATGCTCAATGACCCGCCCGCG  
 CTGGCCCTCGAGAATTACACTGCACTGCAGGCGGTGCCCAAGGCCTCATCATGTGTTCAACATGC  
 TGAAGAAGTACGTCGGTCCGAGCAGAAAGACAGACAGCACACCCTAAAGCATTGTAACATGTCCGCAT  
 GTGACACCCCAAGAAAGCTGCTCAGATCCGGTCCAGGTTATGACACACCTCCGTGTATCTACGAGCGC  
 ATGAACCAAGTCTCTGTCCCTGCTTACAATGTCCCTGCGGTGGCTGAGGAGATTCAAGATGAAGTGGATG  
 AGCTGTTTCAAGAGGAGCAGAAGTACTCCGACGATGCTTGGCCAACATGATCAGTGAGCCAGAATCAG  
 CTACGGAACGACGCTCTCATGCCTTCCGCTGACGGAACCAAGACCACCGTGGAGCTCCTCCCCTGAAT  
 GGGGAATTCAGCCTGGATGACCTCCAGCCGTGGCACCCCTTTGGGGTGGACTCTGTGCCAGCCAATACCG  
 AAAATGAAGTCCGAGCCTGTTGACGCCGCCCGCTGCTGACCGAGGACTGACCACTCGACCAGGTTCTGG  
 GCTGACAAACATCAAGACGGAAGAGATCTCGGAAGTGAAGATGGATGCAGAATTCGGACATGATTCAGGA  
 TTTGAAGTCCGCATCAAAAAGTGGTGTCTTTGCTGAAGATGTGGGTTGAAACAAGGCCCATCATCG  
 GACTCATGGTGGCGGGCTTGTATAGCAACCGTATTGTCATCACCTGGTGTGTTGAAGAAGAAACA  
 GTACACATCCATCCATCATGGCGTGGTGGAGGTCGACGCCCGCTGACCCAGAGGAGCGCCATCTCTCC  
 AAGATGCAGCAGAACGGATATGAGAATCCAACCTACAAGTCTTTGAGCAAAATGCAGAAGTAAAGCCAC  
 CCGCGCCACAGCAGCGGCTCTGAACTTGACAGCGAAACCATTGCTTCACTACCCATCGGTGTTCAATT  
 ATAAAATAACGTGGAAGAAACAACCCCTCCGTTTATTTACTCACCCCTCGGCTTTTACAGCTGTGCTG  
 TAACACAAGTAGATGCCTGAACTGAATTAATATACAAATCAGTAATGTATTCTCGCTTCTCTTTAC  
 ATCTGGTCTCTACATTACATGATTCATGGGTTTTGTGTACTGTAAAAAATAATAGCTGTATCAAAAC  
 TAGTGCATGAATAGATTCTCCTAATTTATCACATACATAGCCCTTAGCCGTTGTATATTATTC  
 TTGTGGTTTTGTGGCCCGGAAAAAAGTCTACTTGAATATGCTTTAAAAATCGATGGGGGATGCTTCTTG  
 TGAACGTGGGCGTCTAGCTGCTTCTCCTACGATTTCTTTTCTGATCACTATGCATTTTGAACATTTTTT  
 TAAGTATTCCAAATGACTTAGAAAAATCTTTTTCCATGACTGCATCTTACTGTACAGATTGCTGTTCTG  
 CTCTTTTGTGATATAGGAATAAGAGGATACACATTGATTTCTTTGTGCCTGTTTTATGTGCACACATTA  
 GGCATTGAGAATTTGAACATTTTTTTGTCCATGTATCTTTGGATCTTTGATAAAAAAATAAAAAA  
 AATTATCCCTGTTATCATAAGCACTTTTACGGGTGGGGGAGGGAGTGTCTGCTGGTCTCCAATTACC  
 AAGAATTCTCAAAAATTAATTTTCTGCAGGATGATTGTACAGAATCATTGCTTATGCCATGATAGCTTT  
 CTACACTGTATTACATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA

**Restriction Sites:** AscI-NotI  
**ACCN:** NM\_007471  
**Insert Size:** 2088 bp

<b>OTI Disclaimer:</b>	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="#">BC070409</a> , <a href="#">AAH70409</a>
<b>RefSeq Size:</b>	3140 bp
<b>RefSeq ORF:</b>	2088 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 (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.</p>