

Product datasheet for **SC110343**

BACE2 (NM_012105) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BACE2 (NM_012105) Human Untagged Clone
Tag:	Tag Free
Symbol:	BACE2
Synonyms:	AEPLC; ALP56; ASP1; ASP21; BAE2; CDA13; CEAP1; DRAP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_012105, the custom clone sequence may differ by one or more nucleotides

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ATGGGCGCACTGGCCCGGGCGTGTGCTGCCTCTGCTGGCCAGTGGCTCTGCGCGCCGCCCCGGAGC
TGGCCCCCGCCCTTACGCTGCCCTCCGGGTGGCCGCGGCCACGAACCGCTAGTTGCGCCACCCC
GGGACCCGGGACCCTGCCGAGCCGACCCGACGGCTTGGCGCTCGCCCTGGAGCTGCCCTGGCGTCC
CCCGCGGGCGCCCAACTTCTTGGCCATGGTAGACAACCTGCAGGGGACTCTGCGCGGCTACTACC
TGGAGATGCTGATCGGGACCCCCCGCAGAAGCTACAGATTCTCGTTGACACTGGAAGCAGTAACCTTGC
CGTGGCAGGAACCCGCACTCCTACATAGACACGTACTTTGACACAGAGAGGTCTAGCACATACCCTCC
AAGGGCTTTGACGTCACAGTGAAGTACACACAAGGAAGCTGGACGGGCTTCGTTGGGGAAGACCTCGTCA
CCATCCCCAAAGGCTTCAATACTTCTTTTCTGTCAACATTGCCACTATTTTGAATCAGAGAATTTCTT
TTTGCCTGGGATTAATGGAATGGAATACTTGGCCTAGCTTATGCCACACTTGCCAAGCCATCAAGTTCT
CTGGAGACCTTCTCGACTCCCTGGTGACACAAGCAAACATCCCCAACGTTTTTCCATGCAGATGTGTG
GAGCCGGCTTGCCGTTGCTGGATCTGGGACCAACGGAGGTAGTCTTGTCTTGGGTGGAATTGAACCAAG
TTTGATATAAAGGAGACATCTGGTATACCCTATTAAGGAAGAGTGGTACTACCAGATAGAAATTCGAAA
TTGAAATTTGGAGGCAAAGCCTTAATCTGGACTGCAGAGAGTATAACGCAGACAAGGCCATCGTGGACA
GTGGCACCACGCTGCTGCGCTGCCCGAGAAGGTGTTGATGCGGTGGTGAAGCTGTGGCCCGCGCATC
TCTGATTCAGAAATCTCTGATGGTTTCTGGACTGGGTCCCAGCTGGCGTGTGGACGAATTCGAAACA
CCTTGGTCTTACTTCCATAAAATCTCCATCTACCTGAGAGACGAGAACTCCAGCAGGTCAATTCGGTATCA
CAATCTGCCTCAGCTTTACATTCAGCCATGATGGGGCCGGCTGAATTATGAATGTTACCGATTCCG
CATTTCCCATCCACAAATGCGCTGGTATCGGTGCCACGGTATGGAGGGCTTCTACGTCATCTTCGAC
AGAGCCCAAGAGGGTGGCTTCGACGGGAGCCCTGTGCAGAAATTCAGGTGCTGCAGTGTCTGAAA
TTTCCGGCCTTCTCAACAGAGGATGTAGCCAGCAACTGTGTCCCGCTCAGTCTTTGAGCGAGCCCAT
TTTGTGGATTGTCTCTATGCGCTCATGAGCGTCTGTGGAGCCATCCTCCTTGTCTTAATCGTCCTGCTG
CTGCTGCCGTTCCGGTGTGAGCGTGCAGCCCGTGACCCTGAGGTCGTCATGATGAGTCTCTCTGGTCA
GACATCGCTGGAATGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_012105 unedited

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CCTCGTTTTGTAACGACTTCATATAGGCGGCCGACGAATTCGCACGAGGTCTCCCCGC
CGCCGCCGGTCCCGGTGCGCGCCCATCCCTGCCCGCAGCCCCGCGCGCCGGCCGAGTCCG
TGAGCCCGGGCTGCCGGACGGGACGGGACCGGCTAGGCTGGGCGCGCCCCCGGGCCCCG
CCGTGGGCATGGGCGCACTGGCCCGGGCGCTGTGCTGCCTCTGCTGGCCAGTGGCTCC
TGCGCGCCGCCCCGGAGCTGGCCCCGCGCCCTTACGCTGCCCTCCGGGTGGCCGCGG
CCACGAACCGCTAGTTGCGCCACCCCGGGACCCGGGACCCCTGCCGAGCGCCACGCCG
ACGGCTTGGCGCTCGCCCTGGAGCCTGCCCTGGCGTCCCCCGGGGCGCCGCAACTTCT
TGGCCATGGTAGACAACCTGCAGGGGACTCTGGCCGCGGCTACTACCTGGAGATGCTGA
TCGGGACCCCCCGCAGAAGCTACAGATTCTCGTTGACACTGGAAGCAGTAACCTTTGCCG
TGGCAGGAACCCGCACTCCTACATAGACACGTACTTTGACACAGAGAGGTCTAGCACAT
ACCGCTCCAAGGGCTTTGACGTCACAGTGAAGTACACACAAGGAAGCTGGACGGGCTTCG
TTGGGGAAGACCTCGTCACCATCCCCAAAGGCTTCAATACTTCTTTTCTGTCAACATTG
CCACTATTTTGAATCAGAGAATTTCTTTTGCCTGGGATTAATGGAATGGNANNTACT
GCCTAGCTTATGCCACACTTGCCAAGCCATCAAGTTCTCTGGAGAACCTTTCGACTCCC
TGGTGACACAAGCAAACATCCCCACGTTTCTCATGCANATGTGTGGAGCCCGCTTGCC
CCGTGCTGGATCTGGGACCACCGGAGTAG
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_012105 unedited NNNNNNTTTTGGGGGGTGGGAGCTTGGAAATCAACATCAAATACAGTGAATCTAG AAGCATCTGGGAGCAGAACAGAGATTGAAGACGGGTGGGCACAGGTAGAAAGCGCCACCA TCGATCCCGGCTGCTGCCCTGGAATGTGATTTCTTAATAGCTGAGTTCATGGTTGCTT GAGGTCAGGCCTGGCTATTCATTCCAGCGATGTCTGACCAGAGAGGACTCATCATTGAC GACCTCAGGGTCACGGGGGCGACGCTGACACCGGAACGGCAGCAGCAGCAGGACGATTAA GACAAGGAGGATGGCTCCACAGACGCTCATGAGCGCATAGGACACAATCCACAAAATGGG CTCGCTCAAAGACTGAGCGGGGACACAGTTGCTGGCTACATCCTCTGTTGAGAAAGGCC GGAAATTTTCAGACACTGCAGCACCTGCAATTTCTGCACAGGGGCTCGCTGCGAAGCCAC CCTCTTCTGGGCTCTGTGGAAGATGACGTAGAAGCCCTCCATCACCGTGGCACCGATCAC CAGCGCATTTGTGGATGGGGAAATGCCGAATCGGTAACATTTCATAATTCAGGCCGGCCCC CATCATGGGCTGAATGTAAGCTGAGGCAGGATTGTGATACGGAATGACCTGCTGGAGTT CTCGTCTCTCAGGTAGATGGAGATTTTAGGGAAGTAAGACCAAGGTGTTCCGAATTCGT CCAGCACGCCAGCTGGGACCCAGTCCAGANACCATCAGAGAATTCTGGAATCAGAGATGC GCGGGCCACAGCTTCCACCACCGCATCAAACACCTTCTGGGGCATGCGCAGCAGCGTGGT GCCACTGTACACGATGGCCTTGCTGCGTTATACTCTCTGCAGTCCAGATAA
Restriction Sites:	NotI-NotI
ACCN:	NM_012105
Insert Size:	2000 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).
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.
RefSeq:	NM_012105.3 , NP_036237.2
RefSeq Size:	2993 bp
RefSeq ORF:	1557 bp
Locus ID:	25825
UniProt ID:	Q9Y5Z0
Cytogenetics:	21q22.2-q22.3
Domains:	asp
Protein Families:	Druggable Genome, Protease, Transmembrane

Protein Pathways: Alzheimer's disease

Gene Summary: This gene encodes an integral membrane glycoprotein that functions as an aspartic protease. The encoded protein cleaves amyloid precursor protein into amyloid beta peptide, which is a critical step in the etiology of Alzheimer's disease and Down syndrome. The protein precursor is further processed into an active mature peptide. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]
Transcript Variant: This variant (a) represents the longest transcript and encodes the longest isoform (A). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.