

Product datasheet for **SC126981**

BACE2 (NM_138991) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BACE2 (NM_138991) Human Untagged Clone
Tag:	Tag Free
Symbol:	BACE2
Synonyms:	AEPLC; ALP56; ASP1; ASP21; BAE2; CDA13; CEAP1; DRAP
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC126981 sequence for NM_138991 edited (data generated by NextGen Sequencing)

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ATGGGGCGCACTGGCCCGGGCGCTGCTGCTGCCTCTGCTGGCCAGTGGCTCCTGCGCGCC
GCCCCGGAGCTGGCCCCCGCGCCCTTACGCTGCCCTCCGGGTGGCCGCGGCCACGAAC
CGCGTAGTTGCGCCACCCCGGGACCCGGGACCCTGCCGAGCGCCACGCCGACGGCTTG
GCGCTCGCCCTGGAGCCTGCCCTGGCGTCCCCCGGGGCGCCGCAACTTCTTGCCATG
GTAGACAACCTGCAGGGGACTCTGGCCGCGCTACTACCTGGAGATGCTGATCGGGACC
CCCCCGCAGAAGCTACAGATTCTCGTTGACACTGGAAGCAGTAACCTTGCCGTGGCAGGA
ACCCCGCACTCCTACATAGACACGTACTTTGACACAGAGAGGTCTAGCACATACCCTCC
AAGGGCTTTGACGTCACAGTGAAGTACACACAAGGAAGCTGGACGGGCTTCGTTGGGAA
GACCTCGTACCATCCCCAAAGGCTTCAATACTTCTTTTCTTGCAACATTGCCACTATT
TTTGAATCAGAGAATTTCTTTTGCCTGGGATTAATGGAATGGAATACTTGGCCTAGCT
TATGCCCACTTGCCAAGCCATCAAGTCTCTGGAGACCTTCTTCGACTCCCTGGTGACA
CAAGCAAACATCCCCAACGTTTTCTCCATGCAGATGTGTGGAGCCGGCTTGCCCCGTGCT
GGATCTGGGACCAACGGAGGTAGTCTTGTCTTGGGTGGAATTGAACCAAGTTTGTATAAA
GGAGACATCTGGTATACCCTATTAAGGAAGAGTGGTACTACCAGATAGAAATCTGAAA
TTGGAAATTTGGAGGCAAAGCCTTAATCTGGACTGCAGAGAGTATAACCGCAGACAAGCC
ATCGTGGACAGTGGCACCACGCTGCTGCGCCTGCCCCAGAAGGTGTTGATGCGGTGGT
GAAGCTGTGGCCCGCGCATCNNGCTTTACATTCAGCCCATGATGGGGGCGGCCGTAAT
TATGAATGTTACCGATTCCGCATTTCCCATCCACAAATGCGCTGGTGATCGGTGCCACG
GTGATGGAGGGCTTCTACGTCATCTTCGACAGAGCCAGAAGAGGGTGGGCTTCGACGG
AGCCCCGTGCAGAAATGCAGGTGCTGCAGTGTCTGAAATTTCCGGGCTTTCTCAACA
GAGGATGTAGCCAGCAACTGTGTCGCCGCTCAGTCTTTGAGCGAGCCCATTTTGTGGT
GTGTCCTATGCGCTCATGAGCGTCTGTGGAGCCATCCTCCTTGTCTTAATCGTCCTGCTG
CTGCTGCCGTTCCGGTGTGACGCTGCCCCCGTGACCCTGAGGTCGTCAATGATGAGTCC
TCTCTGGTCAGACATCGCTGAAATGA

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Clone variation with respect to NM_138991.1
981 t=>n;982 c=>n;983 t=>n

5' Read Nucleotide Sequence: >OriGene 5' read for NM_138991 unedited

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TACCCCGCCCCGTTGGCGCAAAGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGC
AGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTGCAGCGGCCGCG
AATTCGGCAGGAGGGCCGAGTCGCTGAGCCGCGGCTGCCGGACGGGACGGGACCGGCTAG
GCTGGGCGCGCCCCCGGGCCCCCGCTGGGCATGGGCGCACTGGCCCGGGCGCTGCTGC
TGCTCTGCTGGCCAGTGGCTCCTGCGCGCCCGCCGAGCTGGCCCCCGCGCCCTTCA
CGCTGCCCTCCGGGTGGCCGCGGCCACGAACCGCTAGTTGCGCCACCCCGGGACCCG
GGACCCCTGCCGAGCGCCACGCCGACGGCTTGGCGCTCGCCCTGGAGCCTGCCCTGGCGT
CCCCCGCGGGCGCCGCAACTTCTTGCCATGGTAGACAACCTGCAGGGGACTCTGGCC
GCGGCTACTACCTGGAGATGCTGATCGGGACCCCCCGCAGAAGCTACAGATTCTCGTTG
ACACTGGAAGCAGTAACCTTGCCGTGGCAGGAACCCCGCACTCCTACATAGACACGTA
TTGACACAGAGAGGTCTAGCACATACCGCTCCAGGGCTTTGACGTCACAGTGAAGTACAC
ACAAGGAAGCTGGACGGNCTTCGTGGGAAGACCTCGTACCATCCCCAAAGGGCTTCA
TACTTCNTTTTCTGTCAACATGCCACTATTNNTGATCAGAGAATTTCTTTTGCCTGGG
ATAAATGGGAATGGAATACTGGCCTAGCTATGCCCACTTGACGCCATCAAGTCTCTGGAG
ACTTCTCGACTCCTGGTGAACAGCAAATCCCCAGGTTCTCATGCAAAGTGTGAGCCGCT
GCCGTGTTTGTCTGACAAACGGGAGATTGTTTTGGGG

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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_138991 unedited ANAGTCGAGACCTTTCCTTTTTTTTTTAGTTCTTTCTCATCAAAACAGATTTATTATTTT TAAGCAAGGATAAGCATATGTGATAGTGGCCAGCTTGGGGATTGAACTCTTCCTGGTTGA TGCACAGTTCAACACCTTTTGGGTCTTGGCTGTTGGGATGATAATTCTTTTGGGTGAAGG GAAACAAGCCGTGGTCAAGGCTGCCTGCACCCCATCCAGGCACAGGACCCTGGGCAAAG TCTCAAAAGAGGTAGTGTTTTTACTTTTCGACCAACAATAACAATAAGTATTGGGTACA AAAGAAGAAATTTCCCTTCCCCTCTACCTCAACGGGCAAAGGCCCTCCATCTTCAGAAGA GGCTTGTGAGGACCATCGGTTGATGACCTCCTAGTGAATTCTGGCTCCCATTTCAGAGCAC AGAGAAACCCACAAAAGGGGCTGTGGCTCTGGTTCCAGGTCTCAAGGGTACAGCTTGGT TACATCCCAGGCCCCAGGCTGATTCTCCTGCCATCATACTGCAAGCCTTCTGTACCAC TTTGNACCCAGTTGAGGTCTGGCGGAAAATAACCTCAAAGGCAATTAATACAAAAGCTT CCTGTAAGCTAAGAAGGGTTATCAACTATATGACTTATTTTTCCAGAGATTGAAGAGAG AAGAAACGAGCCAGGCTTTGGTTTTGGTTTATGGTTNNGTGCACATGTAAGAACTTTTGG CANTACANACCCCATAGAGCCTGCAGCCCATCCACTCTGTTTTTTGTTTANAATGAAATTT TTTTTTTTAATATTTTCTTGAATTGGGGGAGGATTTTAAAAA
Restriction Sites:	NotI-NotI
ACCN:	NM_138991
Insert Size:	2600 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:	<u>NM_138991.1</u> , <u>NP_620476.1</u>
RefSeq Size:	2843 bp
RefSeq ORF:	1407 bp
Locus ID:	25825
UniProt ID:	<u>Q9Y5Z0</u>
Cytogenetics:	21q22.2-q22.3
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 (c) lacks an alternate in-frame exon, compared to variant a. The encoded isoform (C) is shorter than 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.