

Product datasheet for **RG204860**

BACE2 (NM_012105) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BACE2 (NM_012105) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BACE2
Synonyms:	AEPLC; ALP56; ASP1; ASP21; BAE2; CDA13; CEAP1; DRAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204860 representing NM_012105
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGCGCACTGGCCCGGGCGCTGCTGCTGCCTCTGCTGGCCAGTGGCTCCTGCGCGCCGCCCGGAGC
 TGGCCCCCGGCCCTTACGCTGCCCTCCGGGTGGCCGGGCCACGAACCGCGTAGTTGCGCCACCCC
 GGGACCCGGGACCCCTGCCGAGCGCCACGCCGACGGCTTGGCGCTCGCCCTGGAGCCTGCCTGGCGTCC
 CCCGCGGGCGCCCAACTTCTTGGCCATGGTAGACAACCTGCAGGGGACTCTGGCCGCGGCTACTACC
 TGGAGATGCTGATCGGGACCCCGCAGAAGCTACAGATTCTCGTTGACACTGGAAGCAGTAACTTTGC
 CGTGGCAGGAACCCGCACTCCTACATAGACACGTACTTTGACACAGAGAGGTCTAGCACATACCCTCC
 AAGGGCTTTGACGTCACAGTGAAGTACACACAAGGAAGCTGGACGGGCTTCGTTGGGAAGACCTCGTCA
 CCATCCCCAAAGGCTTCAATACTTCTTTTCTTGCAACATTGCCACTATTTTGAATCAGAGAATTTCTT
 TTTGCCTGGGATTAATGGAATGGAATACTTGGCCTAGCTTATGCCACACTTGCCAAGCCATCAAGTTCT
 CTGGAGACCTTCTTCGACTCCCTGGTGACACAAGCAAACATCCCCAACGTTTTCTCCATGCAGATGTGTG
 GAGCCGGCTTGCCCGTTGCTGGATCTGGGACCAACGGAGGTAGTCTTGTCTTGGGTGGAATTGAACCAAG
 TTTGTATAAAGGAGACATCTGGTATACCCTATTAAGGAAGAGTGGTACTACCAGATAGAAATTTCTGAAA
 TTGAAATTTGGAGGCCAAAGCCTTAATCTGGACTGCAGAGAGTATAACGCAGACAAGGCCATCGTGGACA
 GTGGCACACGCTGCTGCGCCTGCCCGAGAAGGTGTTTGTATGCGGTGGTGAAGCTGTGGCCCGCATC
 TCTGATTCCAGAATTCTCTGATGGTTTCTGGACTGGTCCCAGCTGGCGTCTGGACGAATTCGAAACA
 CCTTGGTCTTACTTCCCTAAAATCTCCATCTACCTGAGAGATGAGAATCCAGCAGGTCAATCCGTATCA
 CAATCTGCCTCAGCTTACATTCAGCCCATGATGGGGCCGGCCTGAATTATGAATGTTACCGATTCGG
 CATTTCGCCATCCACAAATGCGCTGGTGATCGGTGCCACGGTGATGGAGGGCTTCTACGTATCTTCGAC
 AGAGCCCAGAAGAGGGTGGGCTTCGACGAGGCCCTGTGCAGAAATTGCAGGTGCTGCAGTGTCTGAAA
 TTTCCGGGCTTTCTCAACAGAGGATGTAGCCAGCAACTGTGCCCCGCTCAGTCTTTGAGCGAGCCCAT
 TTTGTGGATTGTCTCTATGCGCTCATGAGCGTCTGTGGAGCCATCCTCCTTGTCTTAATCGTCTGCTG
 CTGCTGCCGTTCCGGTGTGAGCGTGCAGCCCGTACCCTGAGGTCGTCATGATGAGTCTCTCTGGTCA
 GACATCGCTGAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG204860 representing NM_012105
 Red=Cloning site Green=Tags(s)

MGALARALLLPLLAQWLLRAAPELAPAPFTLPLRVAAATNRVVAPTTPGPTPAERHADGLALALEPALAS
 PAGAANFLAMVDNLQGDSEGRGYLEMLIGTPPQKLQILVDTGSSNFAVAGTPHYSIDTYFDTERRSSTYRS
 KGFDTVTKYTQGSWTGFVGEDLVTIPKGFNTSFLVNIATIFESENFPLPGIKWNGILGLAYATLAKPSSS
 LETFFDSLVTQANIPNVFSMQMCGAGLPVAGSGTNGGSLVGGIEPSLYKGDIIWYTPIKEEWYYQIEILK
 LEIGGQSLNLDREYNADKAIIVDSGTTLLRPLPKVFDVAVVEAVARASLIPEFSDGFWTGSQLACWTNSET
 PWSYFPKISIIYLRDENSRSFRITILPQLYIQPMMGAGLNYECYRFGISPSTNALVIGATVMEGFYVIFD
 RAQKRVGFAASPCAIEIAGAAVSEISGPFSTEDVASNCVPAQSLSEPIILWIVSYALMSVCGAILLVLLVLL
 LLPFRQRRPRDPEVVNDESSLVRHRWK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_012105

ORF Size: 1554 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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

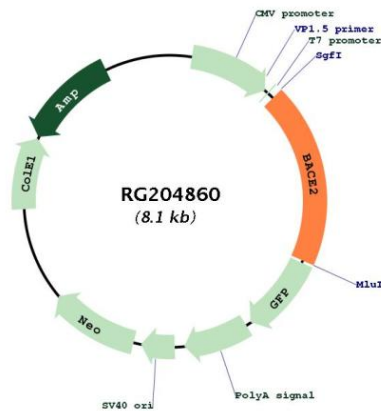
Domains: asp

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]

Product images:



Circular map for RG204860