

Product datasheet for RC213667

BACE2 (NM_138992) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BACE2 (NM_138992) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BACE2
Synonyms:	AEPLC; ALP56; ASP1; ASP21; BAE2; CDA13; CEAP1; DRAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213667 representing NM_138992 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCGCACTGGCCCGGGCGCTGCTGCTGCCTCTGCTGGCCAGTGGCTCCTGCGCGCCGCCCGGAGC
TGGCCCCGCGCCCTTACGCTGCCCTCCGGGTGGCCGCGGCCACGAACCGGTAGTTGCGCCACCCC
GGGACCCGGGACCCCTGCCGAGCGCCACGCCGACGGCTTGGCGCTCGCCCTGGAGCCTGCCCTGGCGTCC
CCCGCGGGCGCCCAACTTCTGGCCATGGTAGACAACCTGCAGGGGACTCTGGCCGCGGCTACTACC
TGGAGATGCTGATCGGGACCCCGCAGAAGCTACAGATTCTCGTTGACTGGAAGCAGTAACTTTGC
CGTGGCAGGAACCCCGCACTCCTACATAGACACGTAATTTGACACAGAGAGGTCTAGCACATACCGCTCC
AAGGGCTTTGACGTCACAGTGAAGTACACACAAGGAAGCTGGACGGGCTTCGTTGGGAAGACCTCGTCA
CCATCCCCAAAGGCTTCAATACTTCTTTTCTTGCAACATTGCCACTATTTTTGAATCAGAGAATTTCTT
TTTGCCTGGGATTAATGGAATGGAATACTTGGCTAGCTTATGCCACACTTGCCAAGCCATCAAGTTCT
CTGGAGACCTTCTCGACTCCCTGGTGACACAAGCAAACATCCCCAACGTTTTCTCCATGCAGATGTGTG
GAGCCGGCTTGCCGTTGCTGGATCTGGGACCAACGGAGGTAGTCTTGTCTTGGTGGAATTGAACCAAG
TTTGTATAAAGGAGACATCTGGTATACCCTATTAAGGAAGAGTGGTACTACCAGATAGAAATCTGAAA
TTGAAATTGGAGGCCAAAGCCTTAATCTGGACTGCAGAGAGTAAACGCAGACAAGCCATCGTGGCA
GTGGCACCAGCTGCTGCGCCTGCCCCAGAAGGTGTTTATGCGGTGGTGAAGCTGTGGCCCGCGCATC
TCTGATCCAGAATTCTCTGATGTTTTCTGGACTGGGTCCAGCTGGCGTCTGGACGAATTCGAAAACA
CCTTGGTCTTACTTCCCTAAAATCTCCATCTACCTGAGAGACGAGAATCCAGCAGGTCAATCCGTATCA
CAATCCTGCCTCAGAAATGCAGGTGCTGCAGTGTCTGAAATTTCCGGGCCTTTCTCAACAGAGGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC213667 representing NM_138992
Red=Cloning site Green=Tags(s)

MGALARALLLPLLAQWLLRAAPELAPAPFTLPLRVAATNRVVAPTGPGPATPAERHADGLALALEPALAS
 PAGAANFLAMVDNLQGDSSGRGYYLEMLIGTPPQKLQILVDTGSSNFVAVAGTPHYSYIDTYFDTERSSTYRS
 KGFDTVTKYQTQGSWTGFVGEDLVTIPKGFNTSFLVNIATIFESENFFLPGIKWNGILGLAYATLAKPSSS
 LETFFDSLVTQANIPNVFSMQMCGAGLPVAGSGTNGGSLVLGGIEPSLYKGDIIWYTPIKEEWYQIEILK
 LEIGGQSLNLDCREYNADKAIIVDSGTTLLRRLPQKVFDVAVVEAVARASLIPEFSDGFWTGSQLACWTNSET
 PWSYFPKISIIYLRDENSRSFRITILPQKLQVLQCLKFPGLSQQRM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_138992

ORF Size: 1188 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_138992.3](#)

RefSeq Size: 2824 bp

RefSeq ORF: 1191 bp

Locus ID: 25825

UniProt ID: [Q9Y5Z0](#)

Cytogenetics: 21q22.2-q22.3

Domains: asp

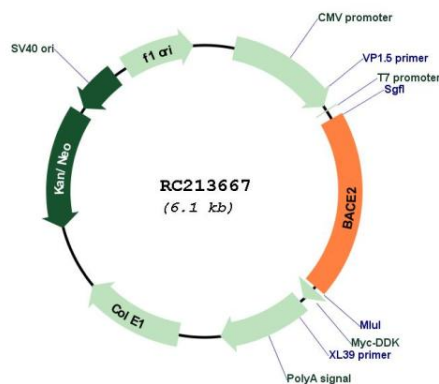
Protein Families: Druggable Genome, Protease, Transmembrane

Protein Pathways: Alzheimer's disease

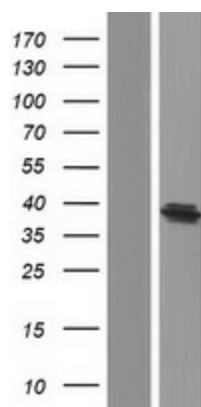
MW: 36.6 kDa

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 RC213667



Western blot validation of overexpression lysate (Cat# [LY408427]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213667 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).