

## Product datasheet for **RG220265**

### **BACE1 (NM\_138972) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BACE1 (NM_138972) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BACE1
Synonyms:	ASP2; BACE; HSPC104
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220265 representing NM\_138972  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCAAAGCCCTGCCCTGGCTCCTGCTGTGGATGGGCGGGGAGTGCCTGCCACGGCACCCAGC  
 ACGGCATCCGGCTGCCCTGCGCAGCGGCTGGGGGGCGCCCCCTGGGGCTGCGCTGCCCGGGAGAC  
 CGACGAAGAGCCCGAGGAGCCCGGCCGGAGGGGACGTTTGTGGAGATGGTGGACAACTGAGGGGCAAG  
 TCGGGGACGGCTACTACGTGGAGATGACCGTGGGCGAGCCCCCGCAGACGCTCAACATCCTGGTGGATA  
 CAGGCAGCAGTAACTTTCAGTGGGTGCTGCCCCACCCTTCTGCATCGCTACTACCAGAGGCAGCT  
 GTCCAGCACATACCGGGACCTCCGGAAGGGTGTGTATGTGCCCTACACCCAGGGCAAGTGGGAAGGGGAG  
 CTGGGCACCGACCTGGTAAGCATCCCCATGGCCCAACGTCCTGTGCGTGCCAACTTGTGCCATCA  
 CTGAATCAGACAAGTTCTTCATCAACGGCTCCAACCTGGGAAGGCATCCTGGGGCTGGCCTATGCTGAGAT  
 TGCCAGGCTTTGGTGTGGCTTCCCCCTCAACAGTCTGAAGTGTGGCTCTGTGCGAGGGAGCATG  
 ATCATTGGAGGTATCGACCACTCGCTGTACACAGGCGAGTCTCTGGTATACACCCATCCGGCGGGAGTGGT  
 ATTATGAGGTGATCATTGTGCGGGTGGAGATCAATGGACAGGATCTGAAAATGGACTGCAAGGAGTACAA  
 CTATGACAAGAGCATTGTGGACAGTGGCACCACCAACCTTCGTTTGCCCAAGAAAGTGTGGAAGCTGCA  
 GTCAAATCCATCAAGGCAGCCTCCTCCACGGAGAAGTTCCTGATGGTTTCTGGCTAGGAGAGCAGCTGG  
 TGTGCTGGCAAGCAGGCACCCACCTTGGAAACATTTCCAGTCATCTACTCTACCTAATGGGTGAGGT  
 TACCAACAGTCTTCCGCATCACCATCCTCCGCAGCAATACCTGCGGCCAGTGGAAAGTGTGGCCAGC  
 TCCCAAGCAGCTGTTACAAGTTTGCCATCTCACAGTCACTCACGGGCACTGTTATGGGAGCTGTTATCA  
 TGGAGGGCTTCTACGTTGCTTTGATCGGGCCCGAAAACGAATTGGCTTGTGCTCAGCAGCTTGCATGT  
 GCACGATGAGTTCAGGACGGCAGCGGTGGAAGGCCCTTTTGTACCTTGGACATGGAAGACTGTGGCTAC  
 AACATTCCACAGACAGATGAGTCAACCCTCATGACCATAGCCTATGTCATGGCTGCCATCTGCGCCCTCT  
 TCATGCTGCCACTCTGCCTCATGGTGTGTGAGTGGCGCTGCCTCCGCTGCCTGCGCCAGCAGCATGATGA  
 CTTTGCTGATGACATCTCCCTGCTGAAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG220265 representing NM\_138972  
 Red=Cloning site Green=Tags(s)

MAQALPWLLLWMGAGVLPAGHTQHGIPLRSLGGAPLGLRLPRETDEEPEEPGRRSFVEMVDNLRGK  
 SGQGYVEMTVGSPPQTLNILDVTGSSNFVGAAPHPFLHRYRQLSSTYRDLRKGVYVPTQGWEGE  
 LGTDLVSIHPGNVTVRANIAAITESDKFFINGSNWEGILGLAYAEIARLCGAGFPLNQSEVLASVGGSM  
 IIGGIDHSLYTGSLWYTPIRREWYEVIIVRVEINGDLKMDCKEYNYDKSIVDSGTTNLRPKKVFEAA  
 VKSIKAASSTEFDPDFWLGEQLVCWQAGTTPWNIIFPVISLYLMGEVTNQSFRTITLPQQYLRPVEDVAT  
 SQDDCYKFAISQSSTGTVMGAVIMEGFYVDFDRARKRIGFAVSACHVHDEFRTAAVEGPFVTLDMEDCGY  
 NIPQTDESTLMTIAYVMAAICALFMLPLCLMVCQWRCLRCLRQQHDFADDISLLK

**TR**TRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_138972

**ORF Size:** 1428 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\\_138972.3](#)

**RefSeq Size:** 5775 bp

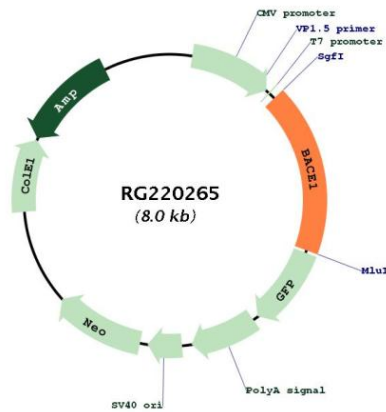
**RefSeq ORF:** 1431 bp

**Locus ID:** 23621

**UniProt ID:** [P56817](#)

**Cytogenetics:** 11q23.3  
**Domains:** asp  
**Protein Families:** Druggable Genome, Protease, Transmembrane  
**Protein Pathways:** Alzheimer's disease  
**Gene Summary:** This gene encodes a member of the peptidase A1 family of aspartic proteases. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature protease. This transmembrane protease catalyzes the first step in the formation of amyloid beta peptide from amyloid precursor protein. Amyloid beta peptides are the main constituent of amyloid beta plaques, which accumulate in the brains of human Alzheimer's disease patients. [provided by RefSeq, Nov 2015]

**Product images:**



Circular map for RG220265