

Product datasheet for **MG201757**

Bnip3 (BC046603) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Bnip3 (BC046603) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Bnip3
Synonyms: Nip3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201757 representing BC046603
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGCAGAGCGGGGAGGAGAACCTGCAGGGCTCCTGGGTAGAAGTGCCTTCAGCAATGGCAATGGGA
 GCAGCGTTCAGCCTCCGTCTCTATTTATAATGGTGACATGGAAAAATACTGTTGGATGCCAGCATGA
 ATCTGGACGAAGTAGCTCCAAGAGTTCTACTGTGACAGCCACCTCGCTCCAGACACCACAAGATACC
 AACAGAGCTGAAATAGACAGCCACAGCTTTGGCGAGAAAAACAGCACTCTGTCTGAGGAAGATTATTTG
 AGAGAAGAAGAGAAGTTGAAAGTATCCTGAAGAAAACTCAGATTGGATATGGGATTGGTCAAGTCGACC
 AGAAAATATCCCCCAAGGAGTTCTTTTTAAACACCCGAAGCGCACAGCTACTCTCAGCATGAGAAAC
 ACAAGCGTTATGAAGAAAGGGGAATTTCTCAGCAGACTTTCTGAAGTTTTCTTCCATCTCTGTTAC
 TGTCTCATCTGCTGGCCATTGGCTTGGGATCTACATTGGAAGCGTCTGACAACCTCCACTAGCACCTT
 C

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201757 representing BC046603
 Red=Cloning site Green=Tags(s)

MSQSGEENLQGSWVELHFSNNGSSVPASVSIYNGDMEKILLDAQHESGRSSSKSSHCDSPPRSQTPQDT
 NRAEIDSHSFGEKNSTLSEEDYIERRREVESILKKNSDWIWDSSRPENIPPKEFLFKHPKRTATLSMRN
 TSVMKGGIFSAFLKVFLPSLLLSHLLAIGLGIYIGRRLTTSTSF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

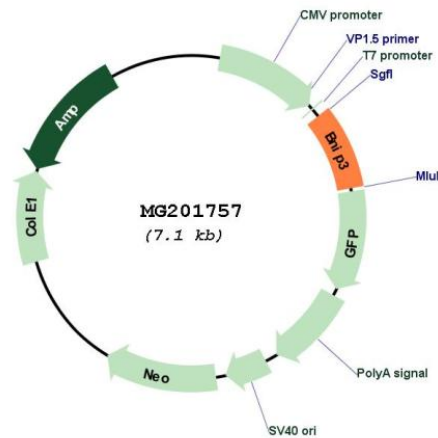


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Cloning Scheme:



Plasmid Map:



ACCN: BC046603

ORF Size: 563 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: [BC046603](#), [AAH46603](#)

RefSeq Size: 1720 bp

RefSeq ORF: 563 bp

Locus ID: 12176

Cytogenetics: 7 F4

Gene Summary: Apoptosis-inducing protein that can overcome BCL2 suppression. May play a role in repartitioning calcium between the two major intracellular calcium stores in association with BCL2 (By similarity). Involved in mitochondrial quality control via its interaction with SPATA18/MIEAP: in response to mitochondrial damage, participates in mitochondrial protein catabolic process (also named MALM) leading to the degradation of damaged proteins inside mitochondria. The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane may play a critical role in the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (By similarity). The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (By similarity). Plays an important role in the calprotectin (S100A8/A9)-induced cell death pathway (By similarity).[UniProtKB/Swiss-Prot Function]