

Product datasheet for **RG206590**

BNP (NPPB) (NM_002521) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: BNP (NPPB) (NM_002521) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: BNP
Synonyms: BNP; Iso-ANP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG206590 representing NM_002521
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATCCCCAGACAGCACCTTCCCGGGCGCTCCTGCTCCTGCTTCTTGCATCTGGCTTTCCTGGGAG
 GTCGTTCCACCCGCTGGGCAGCCCGGTTAGCCTCGGACTTGGAAACGTCGGGTTACAGGAGCAGCG
 CAACCATTTGCAGGGCAAAGTGTGGAAGTCCCGGAGGTAGCCACCGAGGGCATCCGTGGAGCCCTCCAGGAGAGC
 CCCCCTCCACAGGTGTCTGGAAGTCCCGGAGGTAGCCACCGAGGGCATCCGTGGGCACCGCAAATGG
 TCCTCTACACCCTGCGGGCACCACGAAGCCCAAGATGGTGAAGGTCTGGCTGCTTTGGGAGGAAGAT
 GGACCGGATCAGCTCCTCCAGTGGCCTGGGCTGCAAAGTCTGAGCGGGCAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG206590 representing NM_002521
 Red=Cloning site Green=Tags(s)

MDPQTAPSRALLLLLFLHLAFLGGRSHPLGSPGSASDLETSGLQEQRNHLQGKLSLQVEQTSLEPLQES
 PRPTGVWKSREVATEGIRGHRKMVLYTLRAPRSPKMQVQSGCFGRKMDRISSSSGLGCKVLRH

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_002521

ORF Size: 402 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_002521.3](#)

RefSeq Size: 692 bp

RefSeq ORF: 405 bp

Locus ID: 4879

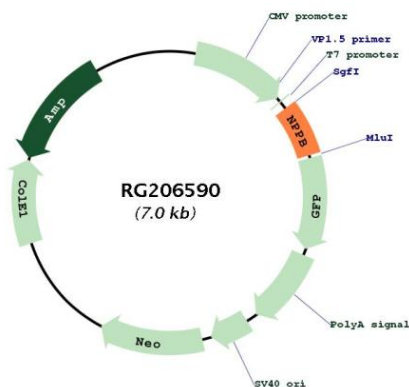
UniProt ID: [P16860](#)

Cytogenetics: 1p36.22

Protein Families: Druggable Genome, Secreted Protein, Stem cell - Pluripotency

Gene Summary: This gene is a member of the natriuretic peptide family and encodes a secreted protein which functions as a cardiac hormone. The protein undergoes two cleavage events, one within the cell and a second after secretion into the blood. The protein's biological actions include natriuresis, diuresis, vasorelaxation, inhibition of renin and aldosterone secretion, and a key role in cardiovascular homeostasis. A high concentration of this protein in the bloodstream is indicative of heart failure. The presence of myocardial injury is a significant predictor of mortality in hospitalized coronavirus disease 2019 (COVID-19) patients, and there is evidence of increased levels of natriuretic peptide B in hospitalized non-survivor COVID-19 patients. The protein also acts as an antimicrobial peptide with antibacterial and antifungal activity. Mutations in this gene have been associated with postmenopausal osteoporosis. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RG206590