

Product datasheet for **RG216122**

CAPON (NOS1AP) (NM_014697) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAPON (NOS1AP) (NM_014697) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CAPON
Synonyms:	6330408P19Rik; CAPON; NPHS22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216122 representing NM_014697
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCTAGCAAAACCAAGTACAACCTTGTGGACGATGGGCACGACCTGCGGATCCCCTTGCACAACGAGG
 ACGCCTTCCAGCACGGCATCTGCTTTGAGGCCAAGTACGTAGGAAGCCTGGACGTGCCAAGGCCAACAG
 CAGGGTGGAGATCGTGGCTGCCATGCGCCGGATACGGTATGAGTTTAAAGCCAAGAACATCAAGAAGAAG
 AAAGTGAGCATTATGGTTTCAGTGGATGGAGTAAAGTGATTCTGAAGAAGAAGAAAAAGCTTCTTTTAT
 TGCAGAAAAAGGAATGGACGTGGGATGAGAGCAAGATGCTGGTATGCAGGACCCCATCTACAGGATCTT
 CTATGTCTCTCATGATCCCAAGACTTGAAGATCTTCAGCTATATCGCTCGAGATGGTCCAGCAATATC
 TTCAGGTGAACGTCTTTAAATCCAAGAAGAAGAGCCAAGCTATGAGAATCGTTCGGACGGTGGGGCAGG
 CCTTTGAGGTCTGCCACAAGCTGAGCCTGCAGCACACGCAGCAGAATGCAGATGGCCAGGAAGATGGAGA
 GAGCGAGAGGAACAGCAACAGCTCAGGAGACCCAGGCCCGCAGCTCACTGGAGCCGAGAGGGCCTCCAGC
 GCCACTGCAGAGGAGACTGACATCGATGCGGTGGAGGTCCCACTCCAGGGAATGATGTCCTGGAATTCA
 GCCGAGGTGTGACTGATCTAGATGCTGTAGGGAAGGAAGGAGGCTCTCACACAGGCTCCAAGTTTCGCA
 CCCCCAGGAGCCCATGCTGACAGCCTCACCCAGGATGCTGCTCCCTTCTTCTTCCGAAGCCTCCAGGC
 CTGGGCACAGAGACACCCTGTCCACTCACCCAGATGCAGCTCCTCCAGCAGCTCCTCCAGCAGCAGC
 AGCAGCAGACACAAGTGGCTGTGGCCCAGGTACTTGTGAAGGACCAGTTGGCTGCTGAGGCTGCGGC
 GCGGCTGGAGGCCAGGCTCGCTGCATCAGCTTTTGTGCAGAACAAAGGACATGCTCCAGCACATCTCC
 CTGCTGGTCAAGCAGGTGCAAGAGCTGGAAGTGAAGTGTGAGGACAGACGCCATGGGCTCCAGGACA
 GCTTGTGGAGATCACCTTCCGCTCCGGAGCCCTGCCCTGCTCTGTGACCCACGACCCCTAAGCCATA
 GGACCTGCATTCGCCCGCGCTGGGCGCGGCTTGGCTGACTTTGCCACCCCTGCGGGCAGCCCTTAGGT
 AGGCGCGACTGCTTGGTGAAGCTGGAGTCTTTCGCTTCTTCCGCCGAGGACACCCCGCCCCAGCGC
 AGGGCGAGGCGCTCCTGGGCGTCTGGAGCTCATCAAGTCCGAGAGTCAGGCATCGCCTCGGAGTACGA
 GTCCAACACGGACGAGAGCGAGGAGCGGACTCGTGGTCCAGGAGGAGTCCCGCGCTGCTGAATGTC
 CTCGAGAGGCAGGAAGTGGGCGACGGCTGGATGATGAGATCGCCGTG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

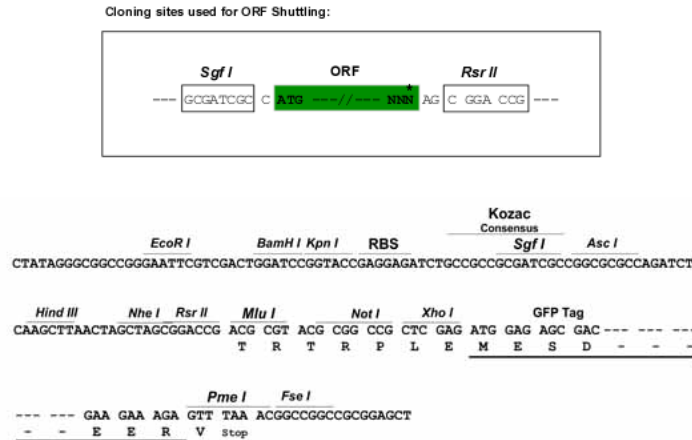
>RG216122 representing NM_014697
 Red=Cloning site Green=Tags(s)

MPSKTKYNLVDDGHDRLIPLHNEDAFQHGICFEAKYVGS LDVPRPNSRVEIVAAMRRIRYEFKAKNIKKK
 KVSIMVSVDGKVI LKKKKKLLLLQKKEWTWDESKMLVMQDPIYRIFYVSHDSQDLKIFSYIARDGASNI
 FRCNVFKSKKKSQAMRIVRTVQAFEVCHKLSLQHTQQNADGQEDGESERNSSNDPGRQLTGAERAST
 ATAEETDIDAVEVPLPGNDVLEFSRGVTDLDAVGKEGGSHTGSKVSHQPMLTASPRMLLPSSSKPPG
 LGTETPLSTHHQMQLLQQLLQQQQQTQVAVAVHLLKDQLAAEAAARLEAQRVHQLLLQNKDMLQHIS
 LLVKQVQELELKLSGQNAMGSQDSLLEITFRSGALPVLCDPTPKPEDLHSPPLGAGLADFHPAGSPLG
 RRDCLVKLECFRFLPPEDTPPPAQGEALLGGLLEIKFRESGIASEYESNTDESEERDSWSQEELPRLLNV
 LQRQELGDGLDEIAV

SGP**TRRRLE** – GFP Tag – V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_014697

ORF Size: 1518 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).

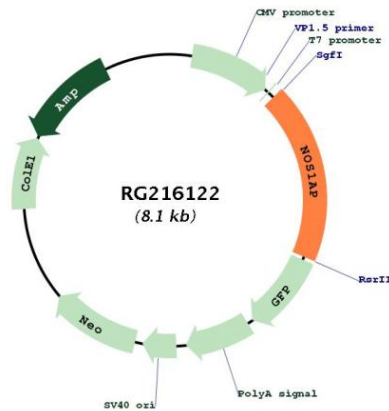
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_014697.3](#)

RefSeq Size: 2891 bp
 RefSeq ORF: 1521 bp
 Locus ID: 9722
 UniProt ID: [O75052](#)
 Cytogenetics: 1q23.3

Gene Summary: This gene encodes a cytosolic protein that binds to the signaling molecule, neuronal nitric oxide synthase (nNOS). This protein has a C-terminal PDZ-binding domain that mediates interactions with nNOS and an N-terminal phosphotyrosine binding (PTB) domain that binds to the small monomeric G protein, Dexas1. Studies of the related mouse and rat proteins have shown that this protein functions as an adapter protein linking nNOS to specific targets, such as Dexas1 and the synapsins. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2009]

Product images:



Circular map for RG216122