

Product datasheet for **RG228932**

CAPON (NOS1AP) (NM_001164757) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CAPON (NOS1AP) (NM_001164757) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NOS1AP
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:

>RG228932 representing NM_001164757
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTAGCAAAACCAAGTACAACCTTGTGGACGATGGGCACGACCTGCGGATCCCCTTGCACAACGAGG
 ACGCCTTCCAGCACGGCATCTGCTTTGAGGCCAAGTACGTAGGAAGCCTGGACGTGCCAAGGCCAACAG
 CAGGGTGGAGATCGTGGCTGCCATGCGCCGGATACGGTATGAGTTTAAAGCCAAGAACATCAAGAAGAAG
 AAAGTGAGCATTATGGTTTCAGTGGATGGAGTAAAGTATTCTGAAGAAGAAGAAAAAGAAAGGAAT
 GGACGTGGGATGAGAGCAAGATGCTGGTATGCAGGACCCCATCTACAGGATCTTCTATGTCTCTCATGA
 TTCCCAAGACTTGAAGATCTTCAGCTATATCGCTCGAGATGGTCCAGCAATATCTTCAGGTGTAACGTC
 TTTAAATCCAAGAAGAAGAGCCAAGCTATGAGAATCGTTCGGACGGTGGGCAGGCCCTTTGAGGTCTGCC
 ACAAGCTGAGCCTGCAGCACACGCAGCAGAATGCAGATGGCCAGGAAGATGGAGAGAGCGAGAGGAACAG
 CAACAGCTCAGGAGACCCAGGCCCGCAGCTCACTGGAGCCGAGAGGGCCTCCACGCCCATGCAGAGGAG
 ACTGACATCGATCGGGTGGAGGTCCCCTTCCAGGGAATGATGTCTGGAATTCAGCCGAGGTGTGACTG
 ATCTAGATGCTGTAGGAAGGAAGGAGGCTCTCACACAGGCTCCAAGTTTCGCACCCCCAGGAGCCCAT
 GCTGACAGCCTCACCCAGGATGCTGCTCCCTTCTTCTTCTCGAAGCCTCCAGGCCTGGGCACAGAGACA
 CCGCTGTCCACTCACCACCAGATGCAGCTCCTCCAGCAGCTCCTCCAGCAGCAGCAGCAGCAGACACAAG
 TGGCTGTGGCCAGGTACACTTGTGAAGGACAGTTGGCTGTGAGGCTGCGGCGCGGCTGGAGGCCCA
 GGCTCGGTGCATCAGCTTTTGTGCAGAACAAAGGACATGCTCCAGCACATCTCCCTGTGGTCAAGCAG
 GTGCAAGAGCTGGAAGTGAAGCTGTCAGGACAGAACCCATGGGCTCCAGGACAGCTTGTGGAGATCA
 CTTTCCGCTCCGGAGCCCTGCCGTGCTCTGTGACCCACAGCCCTAAGCCAGAGACCTGCATTCGCC
 GCCGCTGGGCGCGGGCTTGGCTGACTTTGCCACCCTGCGGGCAGCCCTTAGGTAGGCGCGACTGCTTG
 GTGAAGCTGGAGTGCTTTCGCTTCTTCCGCCAGGACACCCCGCCAGCGCAGGGCGAGGCGCTCC
 TGGGCGGTCTGGAGCTCATCAAGTTCAGAGAGTCAAGGATCGCCTCGGAGTACGAGTCCAACACGGACGA
 GAGCGAGGAGCGGACTCGTGGTCCCAGGAGGAGTCCCGCGCTGCTGAATGCTCTGCAGAGGCAGGAA
 CTGGGCGACGGCCTGGATGATGAGATCGCCGTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG228932 representing NM_001164757
 Red=Cloning site Green=Tags(s)

MPSKTKYNLVDDGHDRLIPLHNEDAFQHGICFEAKYVGS LDVPRPNSRVEIVAAMRRIRYEFKAKNIKKK
 KVSIMVSDGVKIVLKKKKKKKEWTWDESKMLVMQDPIYRIFYVSHDSQDLKIFSYIARDGASNIFRCNV
 FKSKKKSQAMRIVRTVQGAFEVCHKLSLQHTQQNADGQEDGESERNSSNDPGRQLTGAERASTATAEE
 TDIDAVEVPLPGNDVLEFSRGVTDLDAVGKEGGSHTGSKVSHQPMLTASPRMLLPSSSKPPGLGTET
 PLSTHHQMQLLQQLLQQQQQTQVAVAVHLLKDQLAAEAAARLEAQRVHQLLLQNKDMLQHISLLVKQ
 VQELELKLSGQAMGSQDSLLEITFRSGALPVLCDPTTPKPEDLHSPPLGAGLADFAHPAGSPLGRRDCL
 VKLECFRFLPPEDTPPPAQGEALLGGLELIKFRESGIASEYESNTDESEERDSWSQEELPRLLNVLQRQE
 LGDGLDDEIAV

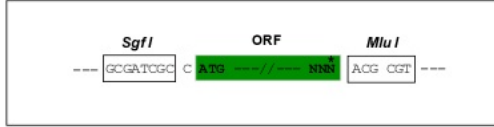
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:

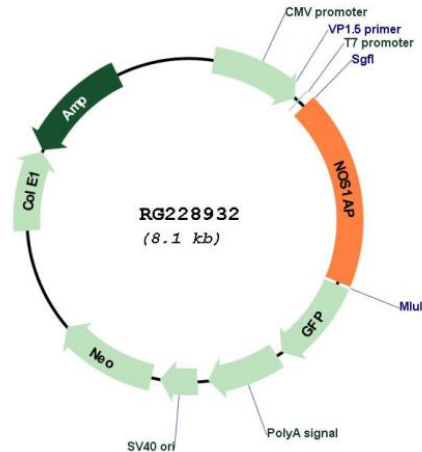


EcoRI *BamHI* *KpnI* *RBS* *Kozac Consensus* *SgfI* *AscI*
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII *NheI* *RsrII* *MluI* *NotI* *XhoI* *GFP Tag*
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---
 T R T R P L E M E S D - - -

PmeI *FseI*
 --- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - - E E R V Stop

Plasmid Map:



ACCN: NM_001164757

ORF Size: 1503 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_001164757.2](#)

RefSeq Size: 4449 bp

RefSeq ORF: 1506 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]