

Product datasheet for **RC216122**

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: | Myc-DDK |
| Symbol: | CAPON |
| Synonyms: | 6330408P19Rik; CAPON; NPHS22 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RC216122 representing NM_014697
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTAGCAAAACCAAGTACAACCTTGTGGACGATGGGCACGACCTGCGGATCCCCTTGCACAACGAGG
 ACGCCTTCCAGCACGGCATCTGCTTTGAGGCCAAGTACGTAGGAAGCCTGGACGTGCCAAGGCCAACAG
 CAGGGTGGAGATCGTGGCTGCCATGCGCCGGATACGGTATGAGTTTAAAGCCAAGAACATCAAGAAGAAG
 AAAGTGAGCATTATGGTTTCAGTGGATGGAGTAAAGTATTCTGAAGAAGAAGAAAAAGAAAGGAAT
 GGACGTGGGATGAGAGCAAGATGCTGGTATGCAGGACCCCATCTACAGGATCTTCTATGTCTCTCATGA
 TTCCCAAGACTTGAAGATCTTCAGCTATATCGCTCGAGATGGTCCAGCAATATCTTCAGGTGAACGTC
 TTTAAATCCAAGAAGAAGAGCCAAGCTATGAGAATCGTTCGGACGGTGGGCAGGCCCTTTGAGGTCTGCC
 ACAAGCTGAGCCTGCAGCACACGCAGCAGAATGCAGATGGCCAGGAAGATGGAGAGAGTGAGAGGAACAG
 CAACAGCTCAGGAGACCCAGGCCCCAGCTCACTGGAGCCGAGAGGGCCTCCACGCCACTGCAGAGGAG
 ACTGACATCGATCGGGTGGAGGTCCCACTTCCAGGGAATGATGTCTGGAATTCAGCCGAGGTGTGACTG
 ATCTAGATGCTGTAGGAAGGAAGGAGGCTCTCACACAGGCTCCAAGTTTCGCACCCCCAGGAGCCCAT
 GCTGACAGCCTCACCCAGGATGCTGCTCCCTTCTTCTTCTCGAAGCCTCCAGGCCTGGGCACAGAGACA
 CCGCTGTCCACTCACCACCAGATGCAGCTCCTCCAGCAGCTCCTCCAGCAGCAGCAGCAGCAGACACAAG
 TGGCTGTGGCCAGGTACTTGGCTGAAGGACAGTTGGCTGTGAGGCTGCGGCGCGGCTGGAGGCCCA
 GGCTCGGTGCATCAGCTTTTGTGCAGAAAGGACATGCTCCAGCACATCTCCCTGTGGTCAAGCAG
 GTGCAAGAGCTGGAAGCTGAAGCTGTCAGGACAGAAGCCATGGGCTCCAGGACAGCTTGGTGGAGATCA
 CCTTCCGCTCCGGAGCCCTGCCGTGCTCTGTGACCCACGACCCCTAAGCCAGAGACCTGCATTCCGCC
 GCCGCTGGGCGCGGGCTTGGCTGACTTTGCCACCCTGCGGGCAGCCCTTAGGTAGGCGCGACTGCTTG
 GTGAAGCTGGAGTGCTTTCGCTTCTTCCGCCAGGACACCCGCCCCAGCGCAGGGCGAGGCGCTCC
 TGGGCGGTCTGGAGCTCATCAAGTTCAGAGAGTCAAGGATCGCCTCGGAGTACGAGTCCAACACGGACGA
 GAGCGAGGAGCGGACTCGTGGTCCCAGGAGGAGCTGCCGCGCTGCTGAATGCTCTGCAGAGGCAGGAA
 CTGGGCGACGGCCTGGATGATGAGATCGCCGTGAGCGGACCG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC216122 representing NM_014697
 Red=Cloning site Green=Tags(s)

MPSKTKYNLVDDGHDLRIPLHNEDAFQHGICFEAKYVGS LDVPRPNSRVEIVAAMRRIRYEFKAKNIKKK
 KVSIMVSDGVK VILK KKKKKEWTWDESKMLVMQDPIYRIFYVSHDSQDLKIFSYIARDGASNIFRCNV
 FKS KKSQAMRIVRTVGQAFEVCHKLSLQHTQQNADGQEDGESE RNSNSSGDPGRQLTGAERASTATAEE
 TDIDAVEVPLPGNDVLEFSRGVTDLDAVGKEGGSH TGSKVSHQPMLTASPRMLLPSSSSKPPGLTET
 PLSTHHQMQLLQQLLQQQQQTQVAVAVHLLKDQLAAEAAAARLEAQRVHQLLLQNKDMLQHISLLVKQ
 VQELELKL SGQNAMGSDSLLEITFRSGALPVLCDPTTPKPEDLHSPPLGAGLADFAHPAGSPLGRRDCL
 VKLECFRFLPPEDTPPPAQGEALLGGLELIKFR ESGIASEYESNTDESEERDSWSQEELPRLLNVLQRQE
 LGDGLDDEIAVSGP

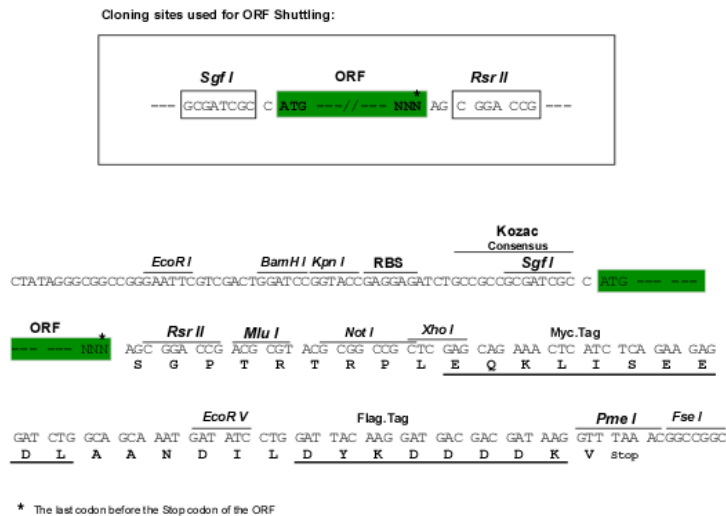
SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6187_b02.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_014697

ORF Size: 1512 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.

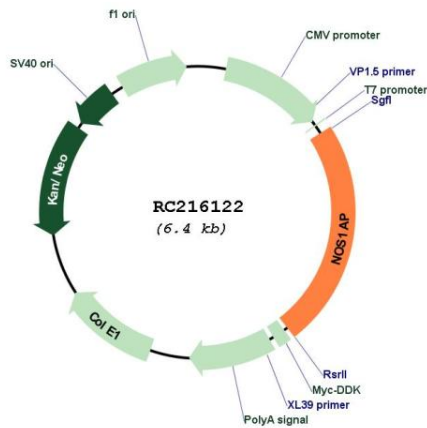
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

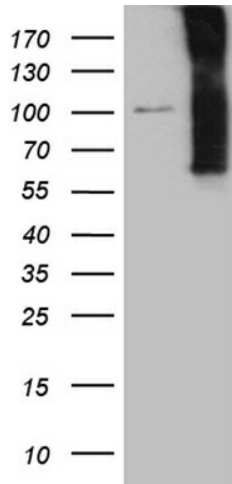
RefSeq Size: 2891 bp
 RefSeq ORF: 1521 bp
 Locus ID: 9722
 UniProt ID: [O75052](#)
 Cytogenetics: 1q23.3
 MW: 56 kDa

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]

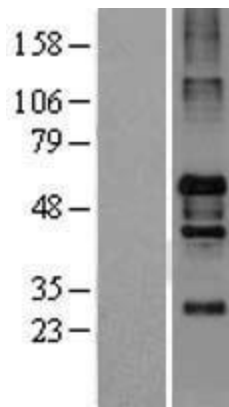
Product images:



Circular map for RC216122



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NOS1AP (Cat# RC216122, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NOS1AP (Cat# [TA811699])(1:2000). Positive lysates [LY402366] (100ug) and [LC402366] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402366]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216122 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).