

## Product datasheet for **RG228481**

### eNOS (NOS3) (NM\_001160109) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	eNOS (NOS3) (NM_001160109) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	eNOS
Synonyms:	ECNOS; eNOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG228481 representing NM\_001160109  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGCAACTGAAGAGCGTGGCCAGGAGCCTGGGCCACCTGCGGCCTGGGGCTGGGGCTGGGCCTTG  
 GGCTGTGCGGCAAGCAGGGCCAGCCACCCGGCCCTGAGCCAGCCGGGCCCCAGCATCCCTACTCCC  
 ACCAGCGCCAGAACACAGCCCCGAGCTCCCCGCTAACCCAGCCCCAGAGGGGCCAAGTTCCTCGT  
 GTGAAGAAGTGGGAGGTGGGAGCATCACCTATGACACCCTCAGCGCCAGGCGCAGCAGGATGGCCCT  
 GCACCCAAAGACGCTGCCTGGGCTCCCTGGTATTTCCACGGAACTACAGGGCGGCCCTCCCCGGCC  
 CCCGGCCCTGAGCAGCTGCTGAGTCAGGCCGGGACTTCATCAACCACTACTACAGCTCCATTAAGAGG  
 AGCGGCTCCAGGCCACGAACAGCGGCTTCAAGAGGTGGAAGCCGAGGTGCAGCCACAGGCACCTACC  
 AGCTTAGGGAGAGCGAGCTGGTGTTCGGGGCTAAGCAGGCTGGCGAACGCTCCCCGCTCGTGGGCCG  
 GATCCAGTGGGGAAAGCTGCAGGTTCGATGCCCGGACTGCAGTCTGCACAGGAAATGTTACCTAC  
 ATCTGCAACCACATCAAGTATGCCACCAACCGGGCAACCTTCGTCGGCCATCACAGTGTCCCGCAGC  
 GCTGCCCTGGCCGAGGAGACTTCCGAATCTGGAACAGCCAGCTGGTGGCTACGCGGGCTACCGGACGA  
 GGATGGCTCTGTGCGGGGGACCCAGCCAACTGGAGATCACCGAGCTCTGCATTAGCAGCGCTGGACC  
 CCAGGAAACGGTTCGCTTCGACGTGCTGCCCTGCTGCTGACGGCCCCAGATGATCCCCAGAACTTTC  
 TTCTGCCCCCGAGCTGGTCTTTCAGGTGCCCTGGAGCACCCACGCTGGAGTGGTTTGCAGCCCTGGG  
 CCTGCGCTGGTACGCCCTCCCGCAGTGTCAAACATGCTGCTGGAATTTGGGGCCTGGAGTTCGCCGA  
 GCCCTTCAGTGGTGGTACATGAGCACTGAGATCGGCACGAGGAACCTGTGTGACCCTCACCGTACA  
 ACATCCTGGAGGATGTGGCTGTCTGCATGGACCTGGATACCCGGACCACCTCGTCCCTGTGGAAGACAA  
 GGCAGCAGTGGAAATCAACGTGGCCGCTGCACAGTTACCAGCTAGCCAAAGTACCATCGTGGACCAC  
 CACGCCGCCACGGCTCTTTCATGAAGCACCTGGAGAATGAGCAGAAGGCCAGGGGGGGCTGCCCTGCAG  
 ACTGGGCTGGATCGTGCCCCCATCTCGGGCAGCCTCACTCCTGTTTTCCATCAGGAGATGGTCAACTA  
 TTTCTGTCCCCGGCTTCCGCTACCAGCCAGACCCTGGAAGGGGAGTGCCGCCAAGGGCACCGGCATC  
 ACCAGGAAGAAGACCTTTAAAGAAGTGGCAACCGCTGAAGATCTCCGCTCGCTCATGGGCACGGTGA  
 TGGCGAAGCGAGTGAAGGCGACAATCCTGTATGGCTCCGAGACCGCCGGGCCAGAGCTACGCACAGCA  
 GCTGGGGAGACTTCCGGAAGGCTTTTGATCCCCGGTCTGTGTATGGATGAGTATGACGTGGTGTCC  
 CTGAACACGAGACGCTGGTGTGGTGAACACGACATTTGGGAATGGGGATCCCCGGAGAATGGAG  
 AGTCTGTCTCCCTGCCAGAAGTGTCTGTACCACAGAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228481 representing NM\_001160109  
 Red=Cloning site Green=Tags(s)

MGNLKSVAQEPGPPCGLGLGLGLCGKQGPATPAPEPSRAPASLLPPAPEHSPPSSPLTQPPEGPKFPR  
 VKNWEVGSITYDTLSAQAAQDGPCTPRRCLGSLVFPRKLQGRPSGPPAPEQLLSQARDFINQYSSIKR  
 SGSQAHEQRLQEVEAEVAATGTQYQRESELVFGAKQAWRNAPRCVGRIQWGLQVFDARDCRSAQEMFTY  
 ICNHIKYATNRGNLRSATVFPQRCPRGDFRIWNSQLVRYAGYRQDGSVRGDPANVEITELCIQHWG  
 PNGRFDVLPDLLQAPDDPELFLPPELVLEVPLEHPTLEWFAALGLRWYALPAVSNMILLEIGGLEFPA  
 APFSGWYMSTEIGTRNLCDPHRYNILEDVAVCMDLDRTRTSSLWKDKAAVEINVAVLHSYQLAKVTIVDH  
 HAATASFMKHLENEQKARGGCPADWAWIVPPIISGSLTPVFHQEMVNYFLSPAFRYQDPWKGSAAGGTGI  
 TRKKTTFKEVANAVKISASLMGTVMKRVKATILYGSETGRAQSYAQLGRLFRKAFDPRVLCMDEYDVVS  
 LEHETLVLVVTSTFGNGDPPENGESVSLPEVSVTTE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_001160109

ORF Size: 1788 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\\_001160109.2](#)

RefSeq Size: 2040 bp

RefSeq ORF: 1791 bp

Locus ID: 4846

UniProt ID: [P29474](#)

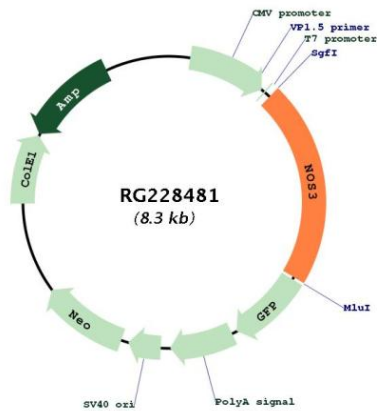
Cytogenetics: 7q36.1

**Protein Families:** Druggable Genome

**Protein Pathways:** Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Arginine and proline metabolism, Calcium signaling pathway, Long-term depression, Metabolic pathways, Pathways in cancer, Small cell lung cancer, VEGF signaling pathway

**Gene Summary:** Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. Nitric oxide is synthesized from L-arginine by nitric oxide synthases. Variations in this gene are associated with susceptibility to coronary spasm. Alternative splicing and the use of alternative promoters results in multiple transcript variants. [provided by RefSeq, Oct 2016]

**Product images:**



Circular map for RG228481