

Product datasheet for RC209228

eNOS (NOS3) (NM_000603) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	eNOS (NOS3) (NM_000603) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	eNOS
Synonyms:	ECNOS; eNOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209228 representing NM_000603. Blue=ORF Red=Cloning site Green=Tag(s)

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Protein Sequence: >Peptide sequence encoded by RC209228
 Blue=ORF Red=Cloning site Green=Tag(s)

MGNLKSVAQEPGPPCGLGLGLGLGCGKQGPATPAPEPSRAPASLLPPAPEHSPPSSPLTQPPEGPKFP
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 RTQSFSLQERQLRGAVPWAFDPPGSDTNSP
 TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Recombinant protein using RC209228 also available, [TP309228](#)

Chromatograms: https://cdn.origene.com/chromatograms/mk6263_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000603

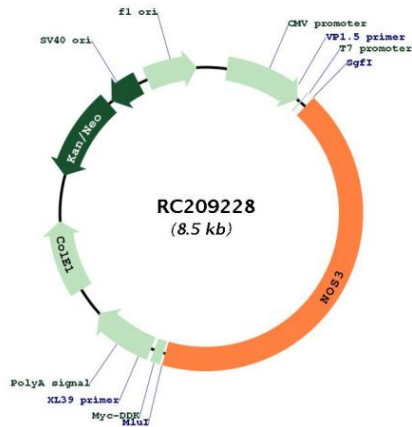
ORF Size: 3609 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq Size:	4345 bp
RefSeq ORF:	3612 bp
Locus ID:	4846
UniProt ID:	P29474
Cytogenetics:	7q36.1
Domains:	flavodoxin, NAD_binding_1, FAD_binding_1, NO_synthase
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
MW:	133.3 kDa

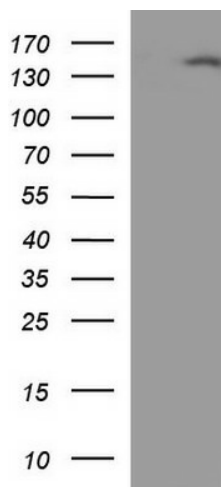
Gene Summary:

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]

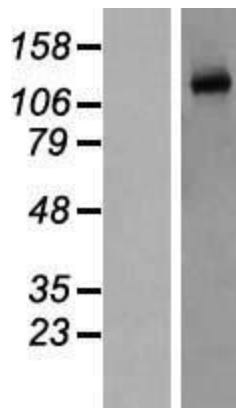
Product images:



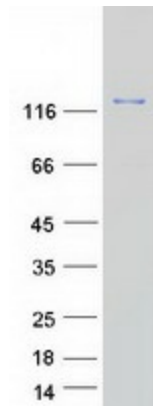
Circular map for RC209228



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NOS3 (Cat# RC209228, 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-NOS3 (Cat# [TA590785]). Positive lysates [LY424613] (100ug) and [LC424613] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424613]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209228 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NOS3 protein (Cat# [TP309228]). The protein was produced from HEK293T cells transfected with NOS3 cDNA clone (Cat# RC209228) using MegaTran 2.0 (Cat# [TT210002]).