

Product datasheet for **SC329731**

NOS1 (NM_001204214) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NOS1 (NM_001204214) Human Untagged Clone
Tag:	Tag Free
Symbol:	NOS1
Synonyms:	bNOS; IHPS1; N-NOS; NC-NOS; nNOS; NOS
Vector:	pCMV6-Entry (PS100001)



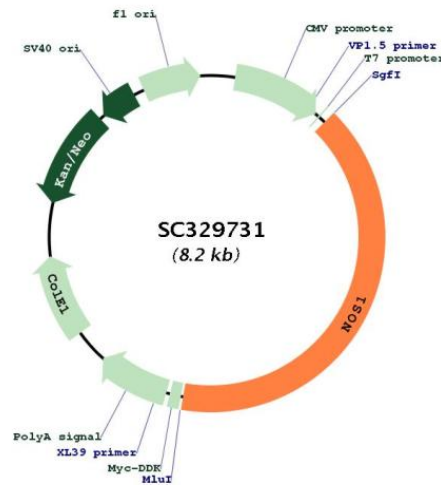
[View online »](#)

Fully Sequenced ORF: >SC329731 representing NM_001204214.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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 TTCCTCTCGCCAAAGAGTTTATTGATCAATACTATTCATCAATTAAGATTGGCTCCAAAGCCCAC
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 ACCCAGCAGGGGAAGCTCTCGGCAGAGGACGCCGGCTATTCATCAGCCGGATGAGGGATGACAACCGA
 TACCATGAGGATATTTTTGGAGTACCCTGCGAACGTACGAAGTGACCAACCGCCTTAGATCTGAGTCC
 ATTGCCTTCATTGAAGAGAGCAAAAAGACACCGATGAGGTTTTTCAGCTCCTAA

Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_001204214

Insert Size: 3297 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001204214.1](#)

RefSeq Size: 10776 bp

RefSeq ORF: 3297 bp

Locus ID: 4842

UniProt ID: [P29475](#)

Cytogenetics: 12q24.22

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
MW:	125.1 kDa
Gene Summary:	<p>The protein encoded by this gene belongs to the family of nitric oxide synthases, which synthesize nitric oxide from L-arginine. Nitric oxide is a reactive free radical, which acts as a biologic mediator in several processes, including neurotransmission, and antimicrobial and antitumoral activities. In the brain and peripheral nervous system, nitric oxide displays many properties of a neurotransmitter, and has been implicated in neurotoxicity associated with stroke and neurodegenerative diseases, neural regulation of smooth muscle, including peristalsis, and penile erection. This protein is ubiquitously expressed, with high level of expression in skeletal muscle. Multiple transcript variants that differ in the 5' UTR have been described for this gene but the full-length nature of these transcripts is not known. Additionally, alternatively spliced transcript variants encoding different isoforms (some testis-specific) have been found for this gene.[provided by RefSeq, Feb 2011]</p> <p>Transcript Variant: This variant (4, also known as TnNOSb) contains 2 unique alternate exons (Tex 1b and Tex 2) at the 5' end compared to variant 1, resulting in translation initiation from a downstream AUG, and an isoform (3, also known as nNOSgamma) with a shorter N-terminus compared to isoform 1. This variant is specifically expressed in the testis, and the encoded isoform has catalytic activity (PMID:9111048). Variants 3 and 4 encode the same isoform. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>