

Recombinant Full Length Human NOS1 Protein, C-Flag-tagged

Cat. No. NOS1-1567HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human NOS1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	160.8 kDa
AA Sequence	MEDHMFQGVQIQPNVISVRLFKRKVGGLGFLVKERVSKPPVIISDLIRGGAAEQSGLI

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QAGDIILAVNGR PLVDLSYDSALEVLRGIASETHVVLILRGPEGFTTHLETTFTGDGT
 PKTIRVTQPLGPPTKAVDLSHQPP AGKEQPLAVDGASGPGNGPQHAYDDGQEAGS
 LPHANGLAPRPPGQDPAKKATRVSLQGRGENNELLKEIE PVLSLLTSGSRGVKGGGA
 PAKAEMKDMGIQVDRDLGKSHKPLPLGVENDRVFNDLWGKGNVPVVLNNPYS EK
 EQPPTSGKQSPTKNGSPSKCPRFLKVKNWETEVLDTLHLKSTLETGCTEYICMG
 SIMHPSQHARRP EDVRTKGQLFPLAKEFIDQYYSSIKRFGSKAHMERLEEVEKNKEIDT
 TSTYQLKDTELIYGAKHAWRNASRC VGRIQWSKLQVFDARDCTTAHGMFNYICNHV
 KYATNKGNLRSITIFPQRTDGKHDFRVWNSQLIRYAGY KQPDGSTLGDPANVQFT
 EICIQQGWKPPRGRFDVLP LLQANGNDPELFQIPPELVLEVPIRHPKFEWFK DLGL
 KWYGLPAVSNM LLEIGGLEFSACPFSGWYMGTEIGVRDYCDNSRYNILEEVAKKMN
 LDMRKTSSLW KDQALVEINIAVLVSFQSDKVTIVDHHSATESFIKHMENEYRCRGGC
 PADWWVIVPPMSG SITPVFHQEM LNYRLTPSFEYQPD PWNTHVWKGTNGTPTKR
 RAIGFKKLAEAVKFSAKLMGQAMAKRVKATILYATETGK SQAYAKTLCEIFKHAFDA
 KVMSMEEYDIVHLEHETLVLVVTSTFGNGDPPENGEKFGCALMEMRHPNSVQ EER
 KSYKVRFNSVSSYSDSQKSSGDGPD LRDNFESAGPLANVRFSVFGLGSRAYPHFC
 AFGHAVDTLLEE LGGERILKMREGDEL CGQEEAFRTWAKKVFAACDVFCVGDDV
 NIEKANNSLISNDRSWKRNKFRLTFVA EAPELTQGLSNVHKRVSAA RLLSRQNLQ
 SPKSSRSTIFVRLHTNGSQELQYQPGDHLGVFPGNHEDLVN ALIERLEDAPPVNQM
 VKVELLEERNTALGVISNWTDELRLPPCTIFQAFKYLDITTPPTPLQLQQFASL ATS
 EKEKQRLVLVLSKGLQEYEEWKWGKNPTIVEVLEEFPSIQMPATLLLTQLSLLQPRYY
 SISSSPDMYP DEVHLTVAIVSYRTRDGEGPIHHGVCSSWLNRIQADELVPCFVRGAP
 SFHLPRNPQVPCILVGPGTGIAP FRSFWQQRQFDIQHKGMNPCPMVLVFGCRQSKI
 DHIYREETLQAKNKGVFRELYTAYSREPDKPKKYVQD ILQEQLAESVYRALKEQGG
 HIYVCGDVTMAADV LKAIQRIMTQQGKLSAEDAGVFISMRDDNRYHEDIF
 GVTLRTYEVTNRLRSESI AFIEESKKDTDEVFSSTRTRPLEQKLISEEDLAANDILDYK
 DDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining.

Stability Stable for 12 months from the date of receipt of the product under proper storage and

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	handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
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
Full Length	Full L.

GENE INFORMATION

Gene Name	NOS1 nitric oxide synthase 1 [Homo sapiens (human)]
Official Symbol	NOS1
Synonyms	NOS; bNOS; nNOS; IHPS1; N-NOS; NC-NOS
Gene ID	4842
mRNA Refseq	NM_000620.5
Protein Refseq	NP_000611.1

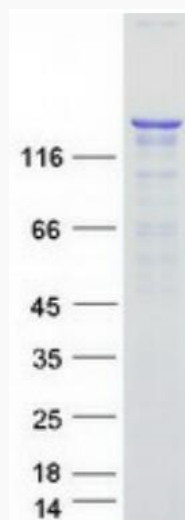
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MIM 163731

UniProt ID P29475



Coomassie blue staining of purified NOS1 protein.

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