

Datasheet for ABIN3137567

## NOS1 Protein (AA 1-1429) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	NOS1
Protein Characteristics:	AA 1-1429
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NOS1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MEEHTFGVQQ IQPNVISVRL FKRKVGGLGF LVKERVSKPP VIISDLIRGG AAEQSGLIQA</p> <p>GDIILAVNDR PLVDLSYDSA LEVLRGIASE THVVLILRGP EGFTTHLETT FTGDGTPKTI</p> <p>RVTQPLGTPT KAVDLSRQPS ASKDQPLAVD RVPGPSNGPQ HAQGRGQGAG SVSQANGVAI</p> <p>DPTMKNTKAN LQDSGEQDEL LKEIEPVLSI LTGGGKAVNR GGPAKAEMKD TGIQVDRDL</p> <p>GKLHKAPPLG GENDRVFNDL WGKGNVPVVL NNPYSENEQS PASGKQSPTK NGSPSRCPRF</p> <p>LKVKNWETDV VLTDTLHLKS TLETGCTEQI CMGSIMLP SHIRKSEDEVRT KDQLFPLAKE</p> <p>FLDQYYSSIK RFGSKAHMDR LEEVNKEIES TSTYQLKDTE LIYGAKHAWR NASRCVGRIQ</p> <p>WSKLQVFDAR DCTTAHGMFN YICNHVKYAT NKGNLRSALT IFPQRTDGKH DFRVWNSQLI</p> <p>RYAGYKQPDG STLGD PANVE FTEICIQGW KPPRGRFDVL PLLLQANGND PELFQIPPEL</p> <p>VLEVPIRHPK FDWFKDLGLK WYGLPAVSNM LLEIGGLEFS ACPFSGWYMG TEIGVRDYCD</p> <p>NSRYNILEEV AKKMDLDMRK TSSLWKDQAL VEINIAVLYS FQSDKVTIVD HHSATESFIK</p>

HMENEYRCRG GCPADWWIV PPMSSGSIPTV FHQEMLNRYL TPSFEYQDPD WNTHVWKGTN  
GTPTKRRAIG FKKLAEAVKF SAKLMGQAMA KRVKATILYA TETGKSQAYA KTLCEIFKHA  
FDAKAMSMEE YDIVHLEHEA LVLVVTSTFG NGDPPENGEK FGCALMEMRH PNSVQEERKS  
YKVRFNSVSS YSDSRKSSGD GPDLRDNFES TGPLANVRFS VFGLGSRAYP HFCAFGHAVD  
TLLEELGGER ILKMREGDEL CGQEEAFRTW AKKVFKAACD VFCVGDDVNI EKANNLSLN  
DRSWKRNKFR LTYVAEAPEL TQGLSNVHKK RVSAARLLSR QNLQSPKSSR STIFVRLHTN  
GNQELQYQPG DHLGVFPGNH EDLVNALIER LEDAPPANHV VKVEMLEERN TALGVISNWK  
DESRLPPCTI FQAFKYYLDI TTPPTPLQLQ QFASLATNEK EKQRLVLVSK GLQEYEEWKW  
GKNPTMVEVL EEFPSIQMPA TLLLTQLSLL QPRYYSISS PDMYPDEVHL TVAIVSYHTR  
DGEGPVHHGV CSSWLNRIQA DDVVPCFVRG APSFHLPRNP QVPCILVGGP TGIAPFRSFW  
QQRQFDIQHK GMNPPCMVLV FGCRQSKIDH IYREETLQAK NKGVFRELYT AYSREPDRPK  
KYVQDVLQEQ LAESVYRALK EQGGHIYVCG DVTMAADVLLK AIQRIMTQQG KLSEEDAGVF  
ISRLRDDNRY HEDIFGVTLR TYEVTNRLRS ESIAFIEESK KDTDEVFSS

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the

## Product Details

mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

## Target Details

Target:	NOS1
Alternative Name:	Nos1 ( <a href="#">NOS1 Products</a> )
Background:	Nitric oxide synthase 1 (EC 1.14.13.39) (Constitutive NOS) (NC-NOS) (NOS type I) (Neuronal NOS) (N-NOS) (nNOS) (Nitric oxide synthase, brain) (bNOS) (Peptidyl-cysteine S-nitrosylase NOS1),FUNCTION: Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body. In the brain and peripheral nervous system, NO displays many properties of a neurotransmitter. Probably has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such SRR. Isoform NNOS Mu may be an effector enzyme for the dystrophin complex. {ECO:0000269 PubMed:17293453}.
Molecular Weight:	160.5 kDa
UniProt:	<a href="#">Q9Z0J4</a>
Pathways:	<a href="#">Negative Regulation of Hormone Secretion, Myometrial Relaxation and Contraction</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a
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## Application Details

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guarantee though.

Comment:

ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions:

For Research Use only

## Handling

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Format:

Liquid

Buffer:

The buffer composition is at the discretion of the manufacturer.

Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice:

Avoid repeated freeze-thaw cycles.

Storage:

-80 °C

Storage Comment:

Store at -80°C.

Expiry Date:

12 months