

## Rabbit Anti-nNOS antibody

SL10197R

**Product Name** nNOS

**Chinese Name** 一氧化氮合成酶-1（神经型）抗体

**Alias** NOS1\_HUMAN; Nitric oxide synthase, brain; NOS1; EC:1.14.13.39; Constitutive NOS; N NOS; N-NOS; NC-NOS; NOS type I; Neuronal NOS (N-NOS; nNOS); Peptidyl-cysteine S-nitrosylase NOS1; bNOS; neuronal Nitric Oxide Synthase;

**Research Area** Tumour Neurobiology Synthesis and Degradation The new supersedes the old

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human, Mouse, (predicted: Rat, Chicken, Dog, Pig, Cow, Sheep, )  
WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

**Applications** not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 130kDa

**Cellular localization** The cell membrane

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human nNos/NOS-1: 601-700/1434

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed** [PubMed](#)

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].

**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.

**Subunit:**

Homodimer. Interacts with DLG4; the interaction possibly being prevented by the association between NOS1 and CAPON. Forms a ternary complex with CAPON and RASD1. Forms a ternary complex with CAPON and SYN1. Interacts with ZDHHC23. Interacts with NOSIP; which may impair its synaptic location (By similarity). Interacts with HTR4. Interacts with VAC14 (By similarity). Interacts with SLC6A4.

**Product  
Detail**

**Subcellular Location:**

Cell membrane, sarcolemma; Peripheral membrane protein. Cell projection, dendritic spine. Note=In skeletal muscle, it is localized beneath the sarcolemma of fast-twitch muscle fiber by associating with the dystrophin glycoprotein complex. In neurons, enriched in dendritic spines (By similarity).

**Tissue Specificity:**

Isoform 1 is ubiquitously expressed: detected in skeletal muscle and brain, also in testis, lung and kidney, and at low levels in heart, adrenal gland and retina. Not detected in the platelets. Isoform 3 is expressed only in testis. Isoform 4 is detected in testis, skeletal muscle, lung, and kidney, at low levels in the brain, but not in the heart and adrenal gland.

**Post-translational modifications:**

Ubiquitinated; mediated by STUB1/CHIP in the presence of Hsp70 and Hsp40 (in vitro).

**Similarity:**

Belongs to the NOS family.  
Contains 1 FAD-binding FR-type domain.  
Contains 1 flavodoxin-like domain.  
Contains 1 PDZ (DHR) domain.

**SWISS:**  
P29475

**Gene ID:**  
4842

**Database links:**

[Entrez Gene: 4842](#) Human

[Omim: 163731](#) Human

[SwissProt: P29475](#) Human

[Unigene: 654410](#) Human

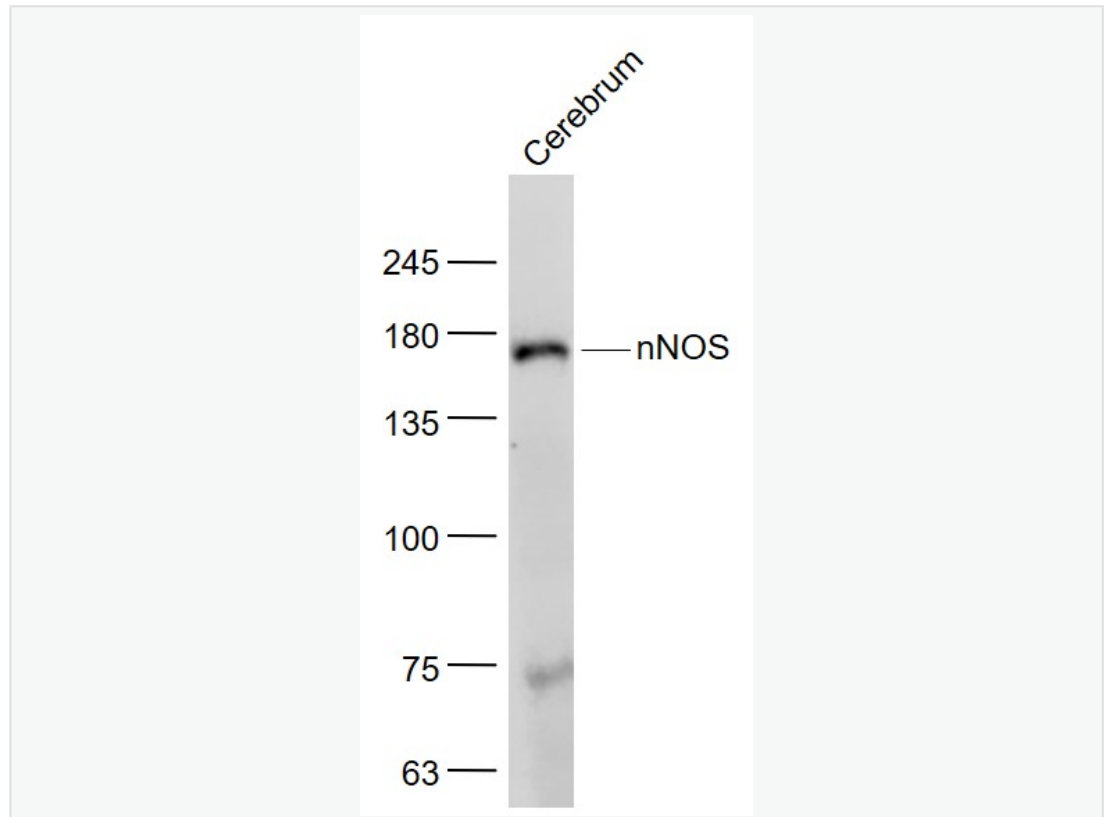
[Unigene: 684465](#) Human

[Unigene: 684466](#) Human

[Unigene: 684467](#) Human

一氧化氮合成酶-1 催化生物体内一氧化氮（NO）生成的酶。分神经型一氧化氮合成的酶（nNOS or NOS1）、诱导型一氧化氮合成的酶（iNOS or NOS2）、内皮型一氧化氮合成的酶（eNOS or NOS3）。此抗体识别分子量为 150kDa 的神经型一氧化氮合成的酶。

**Product  
Picture**



Sample:

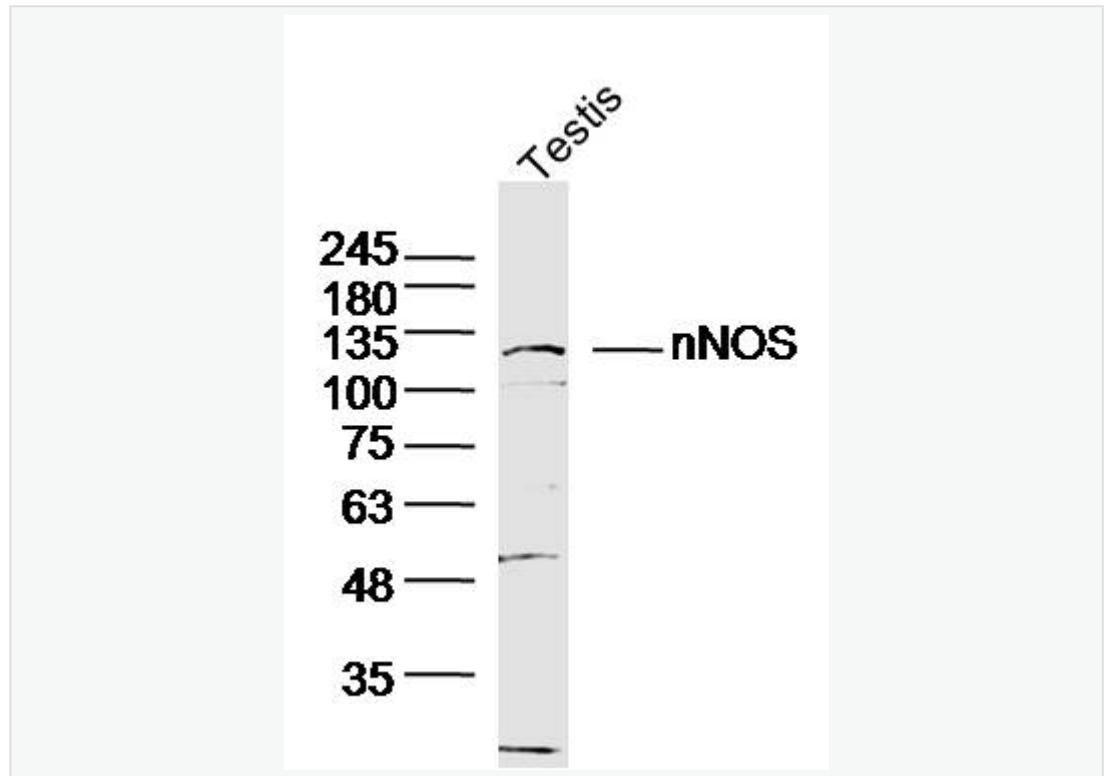
Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti- nNOS (SL10197R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 130 kD

Observed band size: 150 kD



Sample:

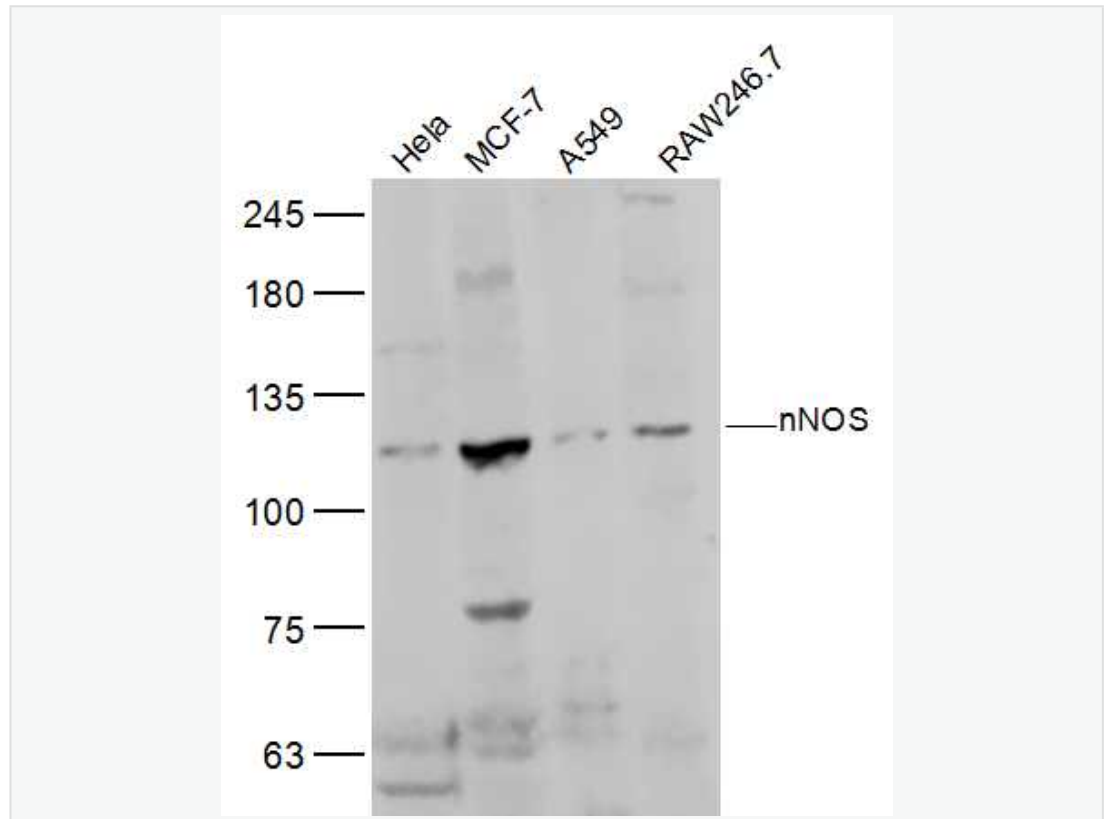
Testis (Mouse) Lysate at 40 ug

Primary: Anti-nNOS (SL10197R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 130 kD

Observed band size: 130 kD



Sample:

HeLa(Human) Cell Lysate at 30 ug

MCF-7(Human) Cell Lysate at 30 ug

A549(Human) Cell Lysate at 30 ug

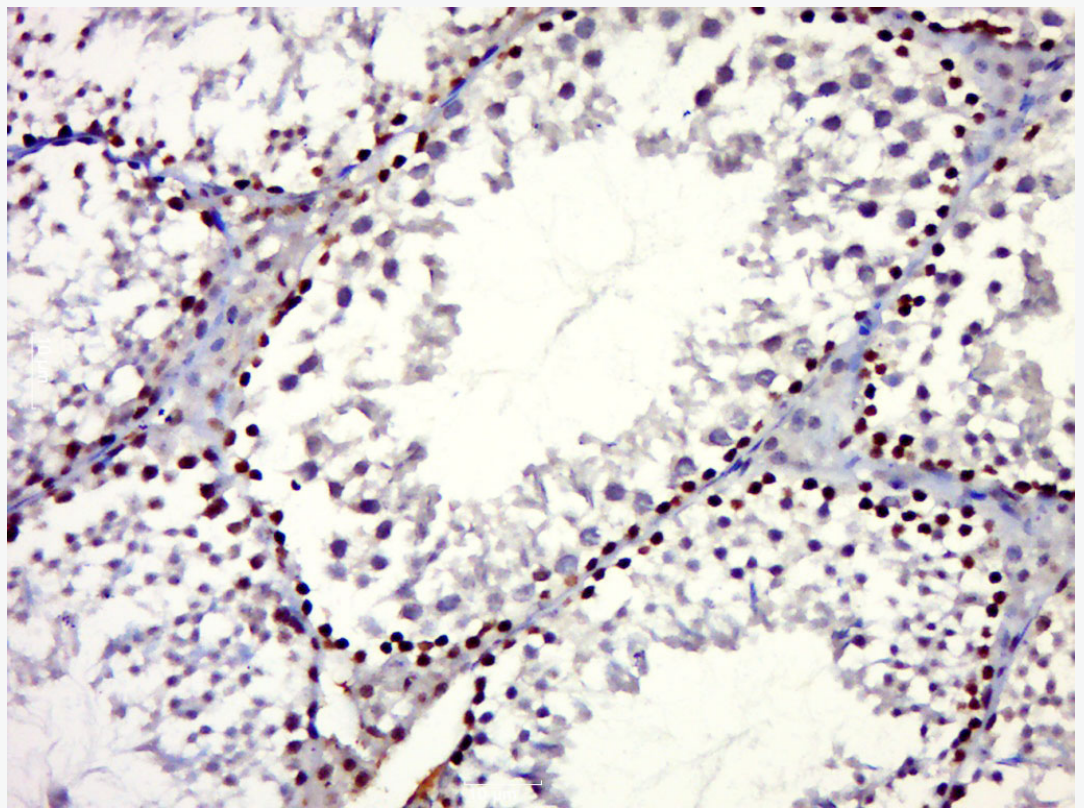
RAW246.7 (Mouse) Cell Lysate at 30 ug

Primary: Anti-nNOS (SL10197R) at 1/300 dilution

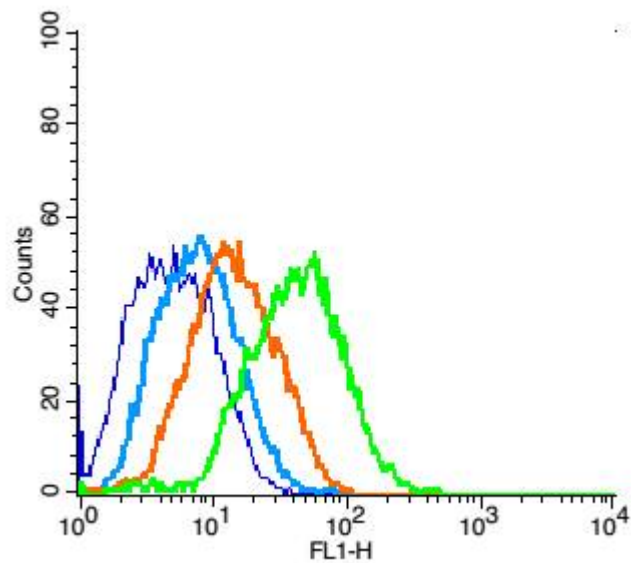
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 130 kD

Observed band size: 130 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (nNOS) Polyclonal Antibody, Unconjugated (SL10197R ) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control (blue line): Mouse brain (fixed with 2% paraformaldehyde for 10 min at room temperature, and then stained with Primary Antibody for 30 min at room temperature).

Primary Antibody (green line): Rabbit Anti-nNOS antibody (SL10197R), Dilution: 1 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC, Dilution: 1 $\mu$ g /test.