

## Product datasheet for **AP08236PU-N**

### **NOS1 (1422-1433) Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IF, IHC, IP, WB
Recommended Dilution:	<b>Immunocytochemistry.</b> <b>Immunohistochemistry on Paraffin Sections:</b> 5 µg/ml. <b>Immunoprecipitation.</b> <b>Western Blot.</b>
Reactivity:	Human, Rat, Bat, Canine, Equine, Monkey, Mouse, Rabbit
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Human nNOS amino acids 1422-1433
Specificity:	This antibody is specific to nNOS amino acids 1422-1433.
Formulation:	TBS, pH 7.4, containing 50% glycerol and 0.02% sodium azide State: Aff - Purified State: Liquid purified Ig fraction
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	nitric oxide synthase 1
Database Link:	<a href="#">Entrez Gene 4842 Human P29475</a>



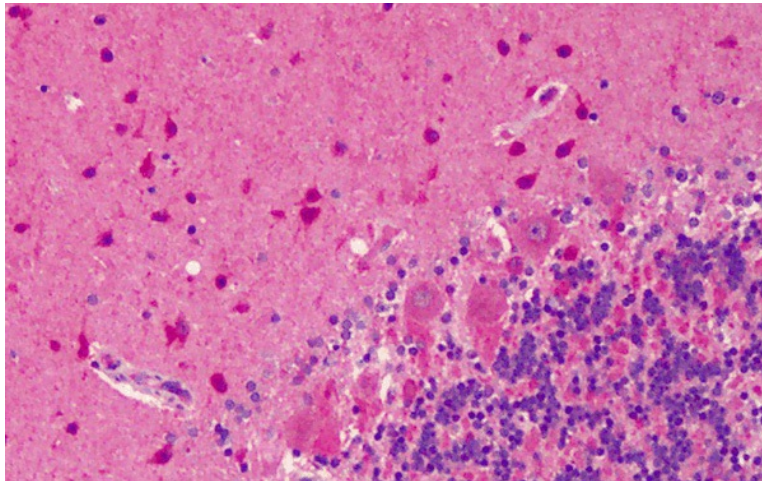
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**Background:**

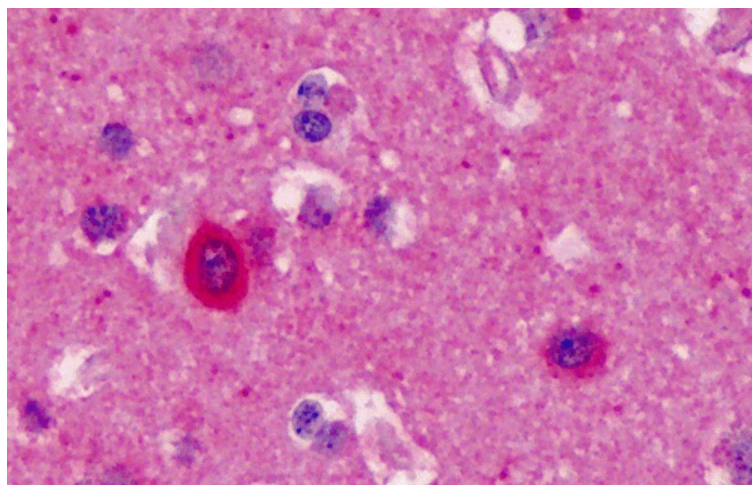
Three isoforms of nitric oxide synthase (NOS) have been identified. All are homodimers with subunits of 130-160 kDa. All have binding sites for NADPH, FAD, and FMN near the carboxyl terminus (the reductase domain), and binding sites for tetrahydrobiopterin (BH<sub>4</sub>) and heme near the amino terminus (the oxygenase domain). The reductase and oxygenase domains are linked by a calmodulin (CaM) binding site. Occupation of this site facilitates electron transfer from the cofactors in the reductase domain to heme during nitric oxide production. NOS catalyzes the conversion of arginine to citrulline and nitric oxide (NO). Neuronal nitric oxide synthase (nNOS, bNOS, cNOS, Type I) is associated with the post-synaptic density protein (PSD-95) in the neuronal membrane. In response to increased intracellular Ca<sup>2+</sup>, nNOS interacts with CaM. The Ca<sup>2+</sup> CaM complex, in combination with BH<sub>4</sub>, binds to nNOS and induces its translocation from the plasma membrane to the cytoplasm. The dephosphorylation of nNOS by calcineurin initiates the production NO. NO activates guanylyl cyclase (GC) and activates the various cGMP regulated signaling pathways. nNOS is inactivated by phosphorylation by protein kinase A (PKA) or protein kinase C (PKC).

**Synonyms:**

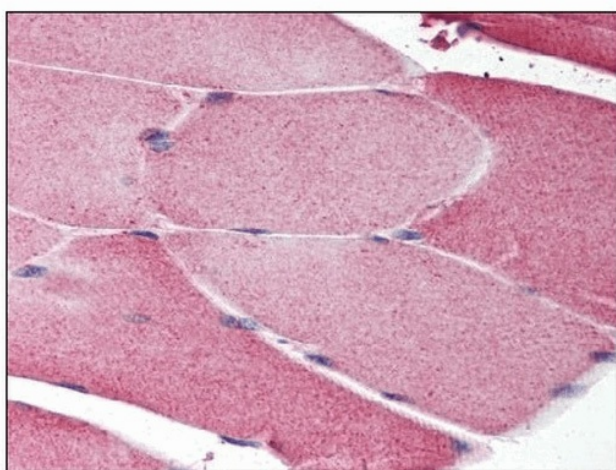
bNOS, nNOS, NOS type I, Neuronal NOS, Constitutive NOS, NC-NOS

**Product images:**

nNOS / NOS1 antibody IHC of human brain, cerebellum. Immunohistochemistry of formalin-fixed, paraffin-embedded tissue after heat-induced antigen retrieval. Antibody at 5 ug/ml.



nNOS / NOS1 antibody IHC of human brain, cortex. Immunohistochemistry of formalin-fixed, paraffin-embedded tissue after heat-induced antigen retrieval. Antibody at 5 ug/ml.



Formalin-Fixed Paraffin-Embedded Human skeletal muscle stained with nNOS / NOS1 antibody