

## Product datasheet for **AP23248PU-N**

### **NOS1 (1418-1434) Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	IHC, WB
<b>Recommended Dilution:</b>	Western blot: At 0.5µg/ml with the appropriate system to detect Nitric Oxide Synthase, Brain(1-181) in cells and tissues. Immunohistochemistry on parafin sections.
<b>Reactivity:</b>	Human, Rat
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Synthetic peptide corresponding to a sequence at the C-terminal of human NOS1 (1418-1434aa)
<b>Specificity:</b>	This antibody detects NOS1 at C-term. No cross reactivity with other proteins.
<b>Formulation:</b>	5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg Na <sub>3</sub> State: Aff - Purified State: Lyophilized Ig fraction
<b>Reconstitution Method:</b>	0.2ml of distilled water will yield a concentration of 500µg/ml.
<b>Purification:</b>	Immunogen affinity purified
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	nitric oxide synthase 1
<b>Database Link:</b>	<a href="#">Entrez Gene 24598 Rat</a> <a href="#">Entrez Gene 4842 Human</a> <a href="#">P29475</a>



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**Background:**

Nitric Oxide Synthase 1 (NOS1, neuronal NOS, nNOS1) is a messenger molecule, mediating the effect of endothelium-derived relaxing factor in blood vessels and the cytotoxic actions of macrophages, and playing a part in neuronal communication in the brain. It may be involved in neuronal cell death and damage in neurological illness. nNOS1 localized to the 12q24.2 region of human chromosome 12. It splice variant, expressed in testis, that encodes an NH<sub>2</sub>-terminal truncated protein of 1098 amino acids. nNOS cDNA clones were shown to contain different 5' terminal exons spliced to a common exon 2. Genomic cloning and sequence analysis demonstrate that the unique exons are positioned within 300 bp of each other but separated from exon 2 by an intron that is at least 20 kb in length. The neuronal isoform of nitric oxide synthase is highly expressed in mammalian skeletal muscle, it suggested a specific role for NOS1 in the local metabolic inhibition of alpha-adrenergic vasoconstriction in active skeletal muscle. The novel gaseous neuromediator nitric oxide is thought to play an important role in development and plasticity. Despite this, gene-knockout mice lacking neuronal (Type I) nitric oxide synthase exhibit relatively normal brain development and behavior.

**Synonyms:**

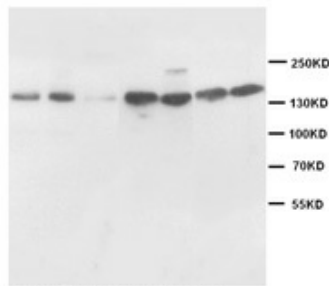
bNOS, nNOS, NOS type I, Neuronal NOS, Constitutive NOS, NC-NOS

**Protein Families:**

Druggable Genome

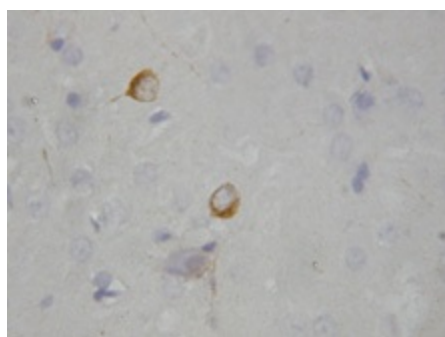
**Protein Pathways:**

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

**Product images:**


Lane 1 : Rat brain tissue Lysate  
 Lane 2 : Rat brain tissue Lysate  
 Lane 3 : Rat Medulla oblongata tissue Lysate  
 Lane 4 : MCF-7 Whole Cell Lysate  
 Lane 5 : SMMC Whole Cell Lysate  
 Lane 6 : SW620 Whole Cell Lysate  
 Lane 7 : Colo320 Whole Cell Lysate

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