

Product Information Sheet



Polyclonal Anti- Nitric Oxide Synthase 1, neuronal NOS, **NOS1**

Catalogue No. PA1329

Lot No. 0131012182964

Ig type rabbit IgG

Size 100µg/vial

Specificity

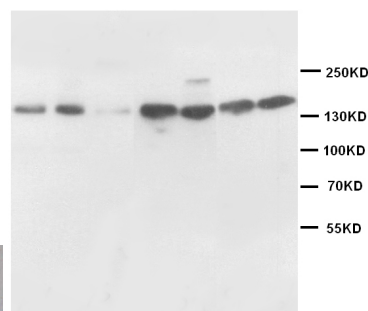
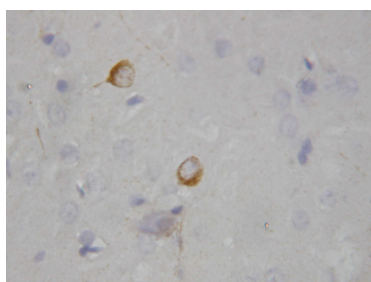
Human, rat.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry (P)



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

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human NOS1 (1418-1434aa), identical to the related rat sequence.

Purity

Immunogen affinity purified.

Application

	Concentration	Tested Species	Concluded Species	Antigen Retrieval
WB	1µg/ml	Hu, Rat	Ms	-
IHC-P	2µg/ml	Rat	Ms	By Heat
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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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 NH₂-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.

REFERENCE

- 1.Brenman, J. E.; Chao, D. S.; Xia, H.; Aldape, K.; Bredt, D. S. : Nitric oxide synthase complexed with dystrophin and absent from skeletal muscle sarcolemma in Duchenne muscular dystrophy. *Cell* 82: 743-752, 1995.
2. Wang, Y.; Goligorsky, M. S.; Lin, M.; Wilcox, J. N.; Marsden, P. A. : A novel, testis-specific mRNA transcript encoding an NH₂-terminal truncated nitric-oxide synthase. *J. Biol. Chem.* 272: 11392-11401, 1997.
3. Xie, J.; Roddy, P.; Rife, T. K.; Murad, F.; Young, A. P. : Two closely linked but separable promoters for human neuronal nitric oxide synthase gene transcription. *Proc. Nat. Acad. Sci.* 92: 1242-1246, 1995.
4. Kharazia, V. N.; Schmidt, H. H. H. W.; Weinberg, R. J. : Type I nitric oxide synthase fully accounts for NADPH-diaphorase in rat striatum, but not cortex. *Neuroscience* 62: 983-987, 1994.