



Product Information Sheet

Monoclonal Anti-Nitric Oxide Synthase, Brain (1-181) NOS1 – Magnetic Bead Conjugate

Catalogue No. MA1072-M

Lot No. 08A12

Clone: N1

Ig type: mouse IgG1

Size: 200µl

Specificity

Human, rat, goat, pig.
No cross reactivity with other proteins.

Recommended application

Immunoprecipitation(IP)

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

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2. Wang, Y.; Goligorsky, M. S.; Lin, M.; Wilcox, J. N.; Marsden, P. A. : A novel, testis-specific mRNA transcript encoding an NH(2)-terminal truncated nitric-oxide synthase. *J. Biol. Chem.* 272: 11392-11401, 1997.
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Contact: Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email: Info@antageneinc.com