

Anti-nNOS (neuronal)/NOS1 Antibody Picoband®

Catalog Number: A01070

About NOS1

Nitric oxide synthase 1 (neuronal), also known as NOS1, is an enzyme that in humans is encoded by the NOS1 gene. 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.

Overview

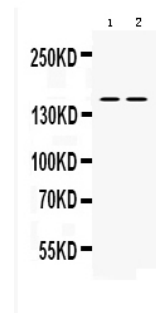
Product Name	Anti-nNOS (neuronal)/NOS1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-nNOS (neuronal)/NOS1 Antibody Picoband® catalog # A01070. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg Na ₃ N. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P29475

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human nNOS(neuronal), identical to the related mouse sequence, and different from the related rat sequence by one amino
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	acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human

Anti-nNOS (neuronal)/NOS1 Antibody Picoband® (A01070) Images



Western blot analysis of nNOS using anti-nNOS antibody (A01070). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. lane 1: rat brain tissue lysates, lane 2: mouse brain tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-nNOS antigen affinity purified polyclonal antibody (Catalog # A01070) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for nNOS at approximately 160KD. The expected band size for nNOS is at 160KD.

8 Publications Citing This Product

1. PubMed ID: 31742429, Singh S, Kumar V, Kumar N, Sharma P, Waheed SM. Protective and Modulatory Effects of *Trapa bispinosa* and *Trigonella foenum-graecum* on Neuroblastoma Cells Through Neuronal Nitric Oxide Synthase. *Assay Drug Dev Technol*. 2020 Jan;18(1):64-74. doi:10.1089/adt.2018.91

2. PubMed ID: 12046087, Distribution of constitutive nitric oxide synthase in the jejunum of adult rat

3. PubMed ID: 29581524, George AK, Behera J, Kelly KE, Mondal NK, Richardson KP, Tyagi N. *Sci Rep*. 2018 Mar 26;8(1):5158. doi: 10.1038/s41598-018-23568-z. Exercise Mitigates Alcohol Induced Endoplasmic Reticulum Stress Mediated Cognitive Impairment through ATF6-Herp Signaling.

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