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antibody and ELISA experts

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Anti-iNOS/Nos2 Antibody Picoband®

Catalog Number: A00368-4

About Nos2

Nitric oxide synthase, inducible is an enzyme that in humans is encoded by the NOS2 gene. Nitric oxide (NO) is a messenger molecule with diverse functions throughout the body. In the brain and peripheral nervous system, NO displays many properties of a neurotransmitter; it is implicated in neurotoxicity associated with stroke and neurodegenerative diseases, neural regulation of smooth muscle, including peristalsis, and penile erection. Three different NOS isoforms have been identified which fall into two distinct types, constitutive and inducible. The inducible NOS (iNOS) isoform is expressed in a variety of cell types and tissues in response to inflammatory agents and cytokines. The human iNOS (NOS2) gene is approximately 37 kb in length and consists of 26 exons and 25 introns. NOS2-derived NO is a prerequisite for cytokine signaling and function in innate immunity.

Overview

Product Name	Anti-iNOS/Nos2 Antibody Picoband®
Reactive Species	Mouse
Description	Boster Bio Anti-iNOS/Nos2 Antibody Picoband® catalog # A00368-4. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Mouse. 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	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P29477

Technical Details

Immunogen	E.coli-derived mouse iNOS/Nos2 recombinant protein (Position: I40-L1099).
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

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Mouse Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Mouse ELISA, 0.1-0.5 ug/ml, -

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Anti-iNOS/Nos2 Antibody Picoband® (A00368-4) Images

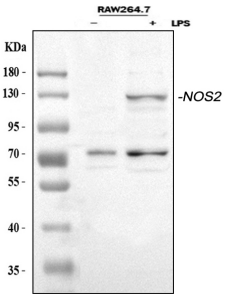

Figure 1. Western blot analysis of iNOS/Nos2 using anti-iNOS/Nos2 antibody (A00368-4).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: mouse RAW264.7(-LPS) whole cell lysates,
Lane 2: mouse RAW264.7(+LPS) whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-iNOS/Nos2 antigen affinity purified polyclonal antibody (Catalog # A00368-4) 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 1:5000 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 iNOS/Nos2 at approximately 130 kDa. The expected band size for iNOS/Nos2 is at 130 kDa.

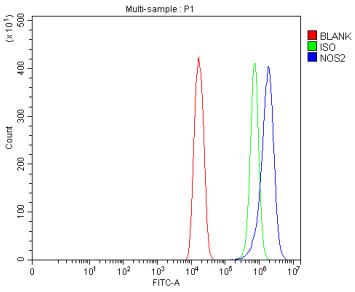

Figure 2. Flow Cytometry analysis of HEPA1-6 cells using anti-iNOS/Nos2 antibody (A00368-4).
Overlay histogram showing HEPA1-6 cells stained with A00368-4 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-iNOS/Nos2 Antibody (A00368-4, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.