Technical Data Sheet

Polyclonal Rabbit Anti-nNOS/NOS Type I

Product Information

Material Number: 610310
Size: 50 µg
Concentration: 250 µg/ml
Reactivity: QC Testing: Rat
Target MW: 155 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Nitric oxide synthase (NOS), a cell-type specific enzyme, catalyzes the synthesis of nitric oxide (NO). NO is a short-lived radical that transmits cellular signals involved in vasorelaxation, neurotransmission, and cytotoxicity. In neurons and endothelial cells, constitutive NOS (cNOS) is activated by agonists that increase intracellular Ca²⁺ levels and enhance calmodulin binding. Neuronal NOS (nNOS or bNOS) and endothelial NOS (eNOS) have recognition sites for NADPH, FAD, FMN, and calmodulin and are regulated in a similar manner. However, both have been shown to be distinct gene products of about 155 kDa and 140 kDa, respectively, and the human forms share 52% amino acid identity. Neuronal NOS and induced macrophage NOS (iNOS) share 51% amino acid homology with the greatest degree of divergence in the calmodulin binding domain. Neuronal NOS, a cytosolic protein present mainly in neural tissues, has been purified and characterized from rat cerebellum. The NO synthesized by this enzyme acts as a neurotransmitter. eNOS has been cloned from human vascular endothelium as well as from bovine aortic endothelial cells (BAEC) and has a unique N-myristylation consensus sequence that may explain its membrane localization.

This polyclonal antibody was generated using human nNOS aa. 1095-1289 as immunogen.

Preparation and Storage

Store undiluted at -20°C.
The polyclonal antibody was purified from antiserum by negative adsorption and affinity chromatography.

Application Notes

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Recommended Assay Procedure:

Western blot: Please refer to http://wwwbdbiosciences.com/pharmingen/protocols/Westernblot.shtml

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### Suggested Companion Products

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<tr>
<td>554021</td>
<td>HRP Goat Anti-Rabbit Ig</td>
<td>1.0 ml</td>
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### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References


Billecke SS, Bender AT, Kanelakis KC. Hsp90 is required for heme binding and activation of apo-neuronal nitric-oxide synthase: geldanamycin-mediated oxidant generation is unrelated to any action of hsp90. *J Biol Chem.* 2002; 277(23):20504-20509. (Biology: Western blot)

