

---

**Anti-iNOS**

Cat #: HM1254  
Mouse monoclonal IgG  
0.2 µg/µl, store at 4 °C

For research use only

**BACKGROUND**

Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. Nitric oxide synthases (NOSs), the enzymes responsible for synthesis of NO, contain an N-terminal oxygenase domain and a C-terminal reductase domain. NOS activity requires homodimerization as well as three cosubstrates (L-arginine, NADPH and O<sub>2</sub>) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetra-hydrobiopterin and heme). Several distinct NOS isoforms have been described and been shown to represent the products of three distinct genes. These include two constitutive Ca<sup>++</sup>/CaM-dependent forms of NOS, including ncNOS (also designated NOS1) whose activity was first identified in neurons, and ecNOS (also designated NOS3), first identified in endothelial cells. The inducible form of NOS, iNOS (also designated NOS2), is Ca<sup>++</sup>-independent, and expressed in liver and is inducible by a combination of lipopolysaccharide and certain cytokines.

**SPECIFICITY**

This antibody reacts with NOS2 (iNOS) of mouse, rat and human origin by Western blotting, immunoprecipitation and immunohistochemistry; non cross-reactive with NOS1 (ncNOS) or NOS3 (ecNOS).

Molecular Weight of NOS2: 130 kDa.

**IMMUNOGEN**

A peptide at the carboxy terminus of NOS2 of mouse origin.

**STORAGE**

This antibody is stable for 12 months when stored at 2-8°C.

**REFERENCES**

1. Farias-Eisner, R., Sherman, M.P., Aeberhard, E., and Chaudhuri, G. 1994. Nitric oxide is an important mediator for tumoricidal activity *in vivo*. Proc. Natl. Acad. Sci. USA 91: 9407-9411.
2. Marietta, M.A. 1994. Nitric oxide synthase: aspects concerning structure and catalysis. Cell 78: 927-930.
3. Heiss, L.N., Lancaster, J.R. Jr., Corbett, J.A., and Goldman, W.E. 1994. Epithelial autotoxicity of nitric oxide: role in the respiratory cytopathology of pertussis. Proc. Natl. Acad. Sci. USA 91: 267-270.
4. Kamijo, R., Harada, H., Matsuyama, T., Bosland, M., Gerecitano, J., Shapiro, D., Le, J., Im, K.S., Kimura, T., Green, S., Mak, T.W., Taniguchi, T., and Vilcek, J. 1994. Requirement for transcription factor IRF-1 in NO synthase induction in macrophages. Science 263: 1612-1615.
5. Nathan, C. and Xie, Q.-W. 1994. Nitric oxide synthases: roles, tolls, and controls. Cell 78: 915-918.

6. Li, H., Raman, C.S., Glaser, C.B., Blasko, E., Young, T.A., Parkinson, J.F., Whitlow, M. and Poulos, T.L. (1999) Crystal structures of zinc-free and -bound heme domain of human inducible nitric-oxide synthase. Implications for dimer stability and comparison with endothelial nitric-oxide synthase. J. Biol. Chem. 274, 21276-21284.
7. Kolodziejcki, P.J., Musial, A., Koo, J.S. and Eissa, N.T. (2002) Ubiquitination of inducible nitric oxide synthase is required for its degradation. Proc. Natl. Acad. Sci. U.S.A. 99, 12315-12320.
8. Warke, V.G., Nambiar, M.P., Krishnan, S., Tenbrock, K., Geller, D.A., Koritschoner, N.P., Atkins, J.L., Farber, D.L. and Tsokos, G.C. (2003) Transcriptional activation of the human inducible nitric-oxide synthase promoter by Kruppel-like factor 6. J. Biol. Chem. 278, 14812-14819.

**PRODUCT FROM HYPROMATRIX, INC.****A. AntibodyArray™s:**

1. Signal Transduction AntibodyArray™  
Catalog Number HM3000
2. Apoptosis AntibodyArray™  
Catalog Number HM4000
3. Cell Cycle AntibodyArray™  
Catalog Number HM5000

**B. Staining AntibodyArray™s**

1. Staining AntibodyArray™ I  
Catalog Number HM8100
2. AntibodyArray Staining Apparatus  
Catalog Number HM8000

**C. Antibodies****1. HRP-conjugated antibodies**

- anti-phosphotyrosine  
Catalog Number HM2040
- anti-phosphoserine  
Catalog Number HM2070
- anti-phosphothreonine  
Catalog Number HM2090

and more...

**2. Primary antibodies**

Hypromatrix offers a variety of high quality antibodies. For a complete list of antibodies and their specificities, please visit our web site at [www.hypromatrix.com](http://www.hypromatrix.com).

**CONTACT**

**Hypromatrix, Inc.**  
100 Barber Avenue  
Worcester, MA 01606  
USA

Tel: 508-856-7900  
Fax: 508-302-0748  
Email: [contact@hypromatrix.com](mailto:contact@hypromatrix.com)  
Web: [www.hypromatrix.com](http://www.hypromatrix.com)