



## **Polyclonal Anti- Nitric Oxide Synthase 2, inducible NOS, NOS2 (Magnetic Bead Conjugate)**

**Catalogue No.** PA1330-M

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminal of human NOS2 (3-24aa), different from the mouse sequence by eight amino acids.

**Lot No.** 0131012173064

**Ig type** rabbit IgG

**Purity**

Immunogen affinity purified.

**Size** 100µg/vial

**Contents**

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN<sub>3</sub>.

**Specificity**

Human, rat.

No cross reactivity with other proteins.

**Storage**

Store at 4°C for frequent use.

**Recommended application**

*ImmunoPrecipitation (IP)*

**Description**

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation.

### **BACKGROUND**

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. Diefenbach et al. (1999) studied the relationship of IL12 and nitric oxide synthase-2 (*NOS2*) to innate immunity to the parasite *Leishmania* in mice. And conclude that *NOS2*-derived NO is a prerequisite for cytokine signaling and function in innate immunity. From studies in Tanzania and Kenya, Hobbs et al. (2002) identified a novel single-nucleotide polymorphism, -1173C-T (163730.0001), in the *NOS2* promoter that was significantly associated with protection from symptomatic malaria and severe malarial anemia.

### **REFERENCE**

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2. Diefenbach, A., Schindler, H., Rollinghoff, M., Yokoyama, W. M., Bogdan, C. Requirement for type 2 NO synthase for IL-12 signaling in innate immunity. *Science* 284: 951-955, 1999.
3. Hobbs, M. R., Udhayakumar, V., Levesque, M. C., Booth, J., Roberts, J. M., Tkachuk, A. N., Pole, A., Coon, H., Kariuki, S., Nahlen, B. L., Mwaikambo, E. D., Lai, A. L., Granger, D. L., Anstey, N. M., Weinberg, J. B. A new *NOS2* promoter polymorphism associated with increased nitric oxide production and protection from severe malaria in Tanzanian and Kenyan children. *Lancet* 360: 1468-1475, 2002.