

iNOS Polyclonal Antibody

Product Specifications

Catalog Number:	KAS-NO001
Host:	Rabbit
Species Reactivity:	Human, Mouse, Rat Other species not tested.
Application:	WB (ECL, 1:1000), IP Other applications not tested. <i>The optimal dilution for a specific application must be determined by the investigator</i>
Predicted MW:	~130 kDa
Concentration:	See product label
Purification:	Protein A Affinity
Format:	PBS, 0.09% azide, 50% glycerol
Storage:	-20°C <i>Shipping conditions may differ from the recommended storage temperature</i>
Immunogen:	A synthetic peptide based on mouse iNOS residues 1131-1144 coupled to KLH ^{1, 6} .
Related Products:	
LYT-RB100	Rat Brain Tissue Extract
LYT-MB100	Mouse Brain Tissue Extract
SAB-300	Goat anti-Rabbit IgG pAb, HRP
905-431	iNOS Rabbit Polyclonal
NEW! KAP-NO021	eNOS Rabbit Polyclonal
KAP-NO030	nNOS Rabbit Polyclonal

Background:

Nitric oxide (NO), a diffusible free radical gas, affects a variety of physiological functions^{2, 3}. NO acts as a neurotransmitter in the brain and peripheral nervous systems. It accounts for the activity of endothelium-derived relaxing factors, which stimulate vasodilation by releasing NO from the endothelium. NO has been implicated in neurotoxicity associated with stroke and neuro-degenerative diseases, neuronal regulation of smooth muscle including peristalsis, and penile erections. In macrophages, NO mediates tumoricidal and bactericidal actions. It mediates the actions of the excitatory neurotransmitter glutamate in stimulation of cGMP levels. Unlike typical neurotransmitters, NO is not stored in synaptic vesicles and does not act on membrane receptors. Synthesis of NO, initially demonstrated in vascular endothelium, is now found in many tissues. NO is synthesized from L-arginine, oxygen, and NADPH by three known isoforms of heme-containing flavoproteins termed NO synthase (NOS I-III, mol wt. ~130-160kDa). One group of enzymes is constitutive, agonist-triggered, dependent on Ca²⁺/calmodulin and is inhibited by L-arginine analogues (L-NNA, L-NMMA). It is found in endothelium, adrenal glands, brain, and platelets. The other principle group is inducible, Ca²⁺/calmodulin-independent, and also inhibited by NMMA and L-NNA. It has been found in macrophages, hepatocytes, tumor cells, vascular smooth muscle and endothelial cells. Analysis of cDNA clones has identified three distinct NOS genes in mammals: neuronal (nNOS/bNOS/NOS-I)⁴, endothelial (eNOS/NOS-III)⁵, and macrophage (mNOS/iNOS/NOS-II)⁶. Both nNOS and eNOS are constitutive and the mNOS is inducible.

Reference:

- Lyons, C.R., Orloff, G.J., Cunningham, J.M. (1992) J Biol Chem. **267**, 6370-6374.
- Marletta, M. (1994) Cell **78**, 927-930.
- Nathan, C., Xie, Q.W. (1994) Cell **78**, 915-918.
- Bredt, D.S., et al. (1991) Nature **351**, 714-718.
- Lamas, S. et al. (1992) PNAS **89**, 6348-6352.
- Xie, Q.W., et al. (1992) Science **256**, 225-228.

Generally reagents are good for one year from the date of receipt, except for conjugates which are good for six months and reagents with an expiration date indicated on the label or other supporting document.

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