

## Basic Information

<b>Product Name</b>	Anti-eNOS/NOS3 Antibody	
<b>Gene Name</b>	NOS3	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, FCM, ELISA	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E. coli-derived human eNOS/NOS3 recombinant protein (Position: Q1052-P1203). Human NOS3 shares 91.2% and 90.6% amino acid (aa) sequence identity with mouse and rat NOS3, respectively.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	133 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

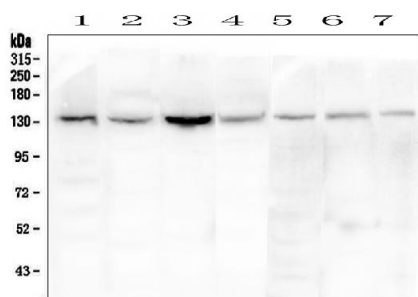
NOS3(Nitric Oxide Synthase 3), also called eNOS, a nitric oxide synthase that generates NO in blood vessels and is involved with regulating vascular tone by inhibiting smooth muscle contraction and platelet aggregation. The NOS3 gene is mapped on 7q36.1. Variations in this gene are associated with susceptibility to coronary spasm. Fulton et al. (1999) concluded the eNOS is an AKT substrate linking signal transduction by AKT to the release of the gaseous second messenger nitric oxide. AKT mediates the activation of eNOS, leading to increased nitric oxide production. Inhibition of

the PI3K AKT pathway or mutation of the AKT site on eNOS protein at serine-1177 attenuated the serine phosphorylation and prevented the activation of eNOS. RT-PCR analysis showed that expression of NOS3 in human umbilical vein endothelial cells (HUVECs) and human aortic vascular smooth muscle cells (HAOVSMCs) was inversely proportional to that of NOS3AS.

## Reference

Anti-eNOS/NOS3 Antibody被引用在31文献中。

## Selected Validation Data



Western blot analysis of eNOS/NOS3 using anti-eNOS/NOS3 antibody (A01604-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human THP-1 whole cell lysates,

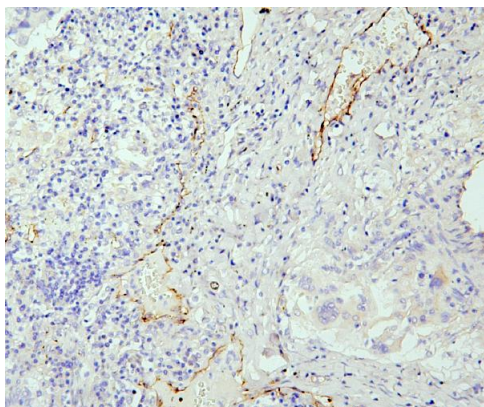
Lane 5: rat kidney tissue lysates,

Lane 6: mouse kidney tissue lysates,

Lane 7: mouse small intestine tissue lysates.

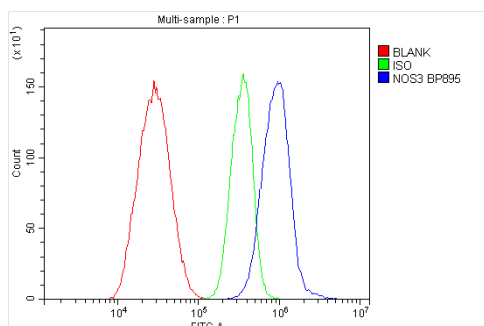
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-eNOS/NOS3 antigen affinity purified polyclonal antibody (A01604-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for eNOS/NOS3 at approximately 133 kDa. The expected band size for eNOS/NOS3 is at 133 kDa.



IHC analysis of eNOS/NOS3 using anti-eNOS/NOS3 antibody (A01604-2).

eNOS/NOS3 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-eNOS/NOS3 Antibody (A01604-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of HepG2 cells using anti-eNOS/NOS3 antibody (A01604-2).

Overlay histogram showing HepG2 cells stained with A01604-2 (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-eNOS/NOS3 Antibody (A01604-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.