SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-eNOS antibody

SL0163R

Product Name	eNOS
Chinese Name	一氧化氮合成酶-3（内皮型）抗体
Alias	NOS-3; cNOS; Constitutive NOS; EC NOS; ecNOS; Endothelial nitric oxidase synthase; Endothelial nitric oxide synthase; Endothelial nitric oxide synthase 3; Endothelial NOS; Nitric oxide synthase 3 (endothelial cell); Nitric oxide synthase 3; Nitric oxide synthase 3 endothelial cell; Nitric oxide synthase endothelial; nitric oxide synthase, endothelial; NOS 3; NOS III; NOS type III; NOS3; NOSIII; NOS3_HUMAN.
Research Area	Neurobiology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Rat (predicted:Human,Mouse,Dog,Pig,Cow,Sheep,GuineaPig)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	133kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from mouse eNOS: 1105-1202/1203
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Product Detail

Nitric oxide synthase NOS oxidizes a guanidine nitrogen of arginine releasing nitric oxide in the form of a free radical and citrulline. Nitric oxide thus generated acts as a messenger in diverse functions including vasodilation neurotransmission, anti tumor and anti pathogenic activities. NOS is classified under three types: neuronal NOS (nNOS) or brain NOS (bNOS); inducible NOS (iNOS) or macrophage NOS (mNOS); and endothelial NOS (eNOS).

eNOS is a calcium/calmodulin dependent enzyme which undergoes several post translational modifications, including acylation with myristate and palmitate, and phosphorylation on numerous residues. As with the other members of the NOS family, eNOS derives the diffusible multifunctional second messenger NO from L arginine through a series of reactions in which L citrulline is an intermediate. eNOS plays an important role in controlling vascular tone, platelet aggregation, and cardiac myocyte function.

Function:
Produces nitric oxide (NO) which is implicated in vascular smooth muscle relaxation through a cGMP-mediated signal transduction pathway. NO mediates vascular endothelial growth factor (VEGF)-induced angiogenesis in coronary vessels and promotes blood clotting through the activation of platelets.
Isoform eNOS13C: Lacks eNOS activity, dominant-negative form that may down-regulate eNOS activity by forming heterodimers with isoform 1.

Subunit:
Homodimer. Interacts with NOSIP and NOSTRIN.

Subcellular Location:
Cell membrane. Membrane, caveola. Cytoplasm, cytoskeleton. Golgi apparatus. Note=Specifically associates with actin cytoskeleton in the G2 phase of the cell cycle; which is favored by interaction with NOSIP and results in a reduced enzymatic activity.

Tissue Specificity:
Platelets, placenta, liver and kidney.

Post-translational modifications:
Phosphorylation by AMPK at Ser-1177 in the presence of Ca(2+)-calmodulin (CaM) activates activity. In absence of Ca(2+)-calmodulin, AMPK also phosphorylates Thr-495, resulting in inhibition of activity. Phosphorylation of Ser-114 by CDK5 reduces activity.

Similarity:
Belongs to the NOS family.
Contains 1 FAD-binding FR-type domain.
Contains 1 flavodoxin-like domain.

SWISS:
P70313

Gene ID:
18127

Database links:

Entrez Gene: 287024 Cow

Entrez Gene: 4846 Human

Entrez Gene: 18127 Mouse

Entrez Gene: 24600 Rat

Omim: 163729 Human

SwissProt: P29473 Cow

SwissProt: P29474 Human

SwissProt: P70313 Mouse

SwissProt: Q62600 Rat

Unigene: 647092 Human

Unigene: 258415 Mouse

Unigene: 44265 Rat

Synthesis and Degradation（Synthesis and Degradation)
催化生物体内一氧化氮（NO）生成的酶。分神经型一氧化氮合成的酶（nNOS or NOS-1）、诱导型一氧化氮合成的酶（iNOS or NOS-2）、内皮型一氧化氮合成的酶（eNOS or NOS-3）。此抗体识别分子量为 135kDa 的内皮型一氧化氮合成的酶。

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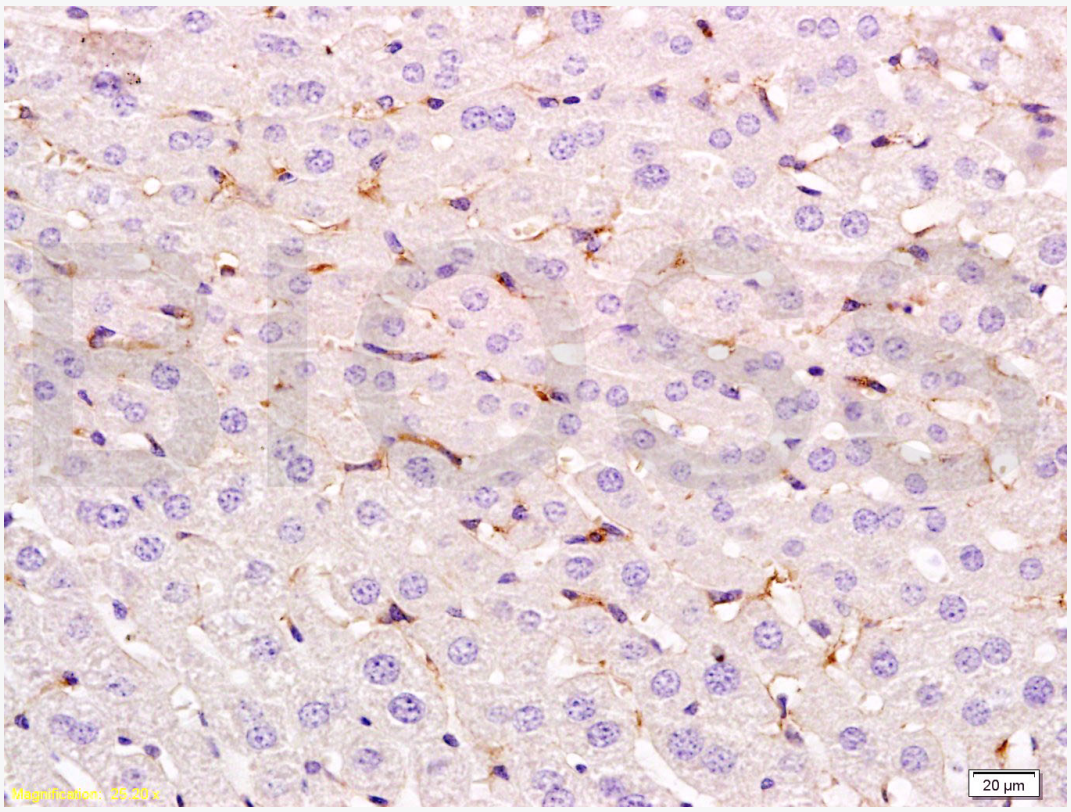
Product Picture



Tissue/cell: rat liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-NOS-3/eNOS Polyclonal Antibody, Unconjugated(SL0163R) 1:100, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining