10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

phospho-eNOS (Ser117) Rabbit pAb

Catalog # AP96206

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P70313
Other Accession	P70313
Reactivity	Human, Sheep
Predicted	Rat, Pig, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	132916
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from mouse eNOS around the phosphorylation site of Ser117
Epitope Specificity	RP(p-T)QG
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
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.
SIMILARITY	Belongs to the NOS family. Contains 1 FAD-binding FR-type domain. Contains 1 flavodoxin-like domain.
SUBUNIT	Homodimer. Interacts with NOSIP and NOSTRIN.
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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).

Additional Information

Gene ID	18127
Other Names	ECNOS; eNOS; 2310065A03Rik; Nos-3; NOS3_BOVIN; NOS3; Constitutive NOS (cNOS); EC-NOS; NOS type III (NOSIII); Nitric oxide synthase, endothelial (Endothelial NOS | eNOS); 1.14.13.39; NOS3_HUMAN; NOS3_MOUSE; NOS3_RAT; nitric oxide synthase 3; nitric oxide synthase 3 (endothelial cell);

	endothelial nitric oxide synthase; NOS3 | eNOS (phospho-S117); p-eNOS; phospho-eNOS; p-NOS3; NOS3 | eNOS (phospho-Ser117)
Target/Specificity	Platelets, placenta, liver and kidney.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Nos3 {ECO:0000312|MGI:MGI:97362}
Synonyms	Ecnos
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. May play a significant role in normal and abnormal limb development.
Cellular Location	Membrane, caveola. Cytoplasm, cytoskeleton. Golgi apparatus. Cell membrane. 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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.