10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody

Catalog # AN1865

Specification

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody - Product Information

Application	**WB**
Primary Accession	P29474
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**133275**

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody - Additional Information

Gene ID	**4846**

Other Names
endothelial Nitric Oxide Synthase, eNOS, ecNOS, NOS-III, NOS3, NOSIII

Dilution
WB~~1:1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody - Images

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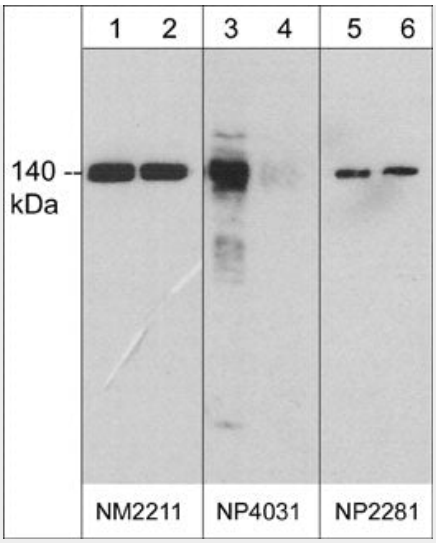
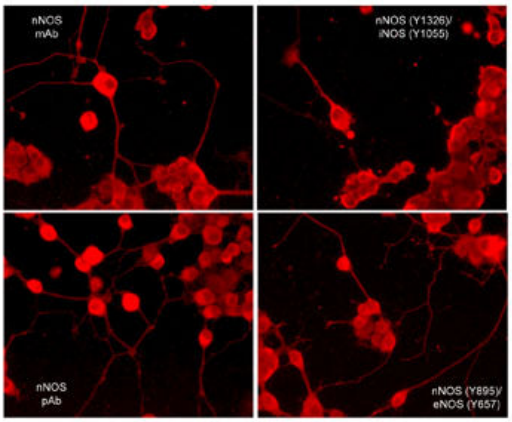


Western blot analysis of human umbilical vein endothelial cells stimulated with pervanadate (1 mM) for 30 min. (lanes 1, 3, & 5) then the blot was treated with alkaline phosphatase (lanes 2, 4, & 6). The blots were probed with anti-eNOS monoclonal antibody (NM2211; lanes 1 & 2), anti-eNOS (Tyr-657) phospho-specific antibody (NP4031; lanes 3 & 4), or anti-eNOS polyclonal antibody (NP2281; lanes 5 & 6).



Immunocytochemical labeling of nNOS phosphorylation in rat PC12 cells differentiated with NGF. The cells were probed with mouse monoclonal (mAb) nNOS (NM4011), and rabbit polyclonal (pAb) nNOS (C-terminal region), nNOS (Tyr-895)/eNOS (Tyr-657), and nNOS (Tyr-1326)/iNOS (Tyr-1055). The antibodies were detected using appropriate secondary antibody conjugated to DyLight® 594.

Anti-eNOS (Tyr-657)/nNOS (Tyr-895), Phosphospecific Antibody - Background

Nitric oxide (NO) has a broad range of biological activities and is implicated in signaling pathways in phylogenetically diverse species. Nitric oxide synthases (NOS), the enzymes responsible for synthesis of NO, are homodimers whose monomers are themselves two fused enzymes: a cytochrome reductase and a cytochrome that requires three cosubstrates (L-arginine, NADPH, and oxygen) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetrahydrobiopterin, and heme). Several distinct NOS isoforms are produced from three distinct genes. The inducible form of NOS, iNOS (NOS-II), is Ca2+ independent and is expressed in a broad range of cell types, and two constitutive Ca2+/CaM-dependent forms of NOS: nNOS (bNOS, NOS-I) identified in neurons and eNOS (ecNOS, NOS-III) identified in endothelial cells. Regulation of eNOS activity occurs through phosphorylation at multiple sites. Phosphorylation of Ser-633 (mouse Ser-632) in the FMN binding domain increases eNOS activity and may be important for the maintenance of NO synthesis after

initial activation by Ca2+ flux and Ser-1177 phosphorylation.