ARG20525
anti-eNOS phospho (Ser632) antibody [M232]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [M232] recognizes eNOS phospho (Ser632)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, WB
Specificity	The antibody detects a ~140 and 120 kDa bands on SDS-PAGE immunoblots of human umbilical vein endothelial cells, but these bands are not observed after lambda phosphatase treatment. The 120 kDa band may be a truncated form of eNOS.
Host	Mouse
Clonality	Monoclonal
Clone	M232
Isotype	IgG1
Target Name	eNOS
Species	Mouse
Immunogen	Synthetic peptide (coupled to carrier protein) around Ser632 of Mouse eNOS. This sequence is conserved in human (Ser-633) and rat (Ser-632) eNOS, and has low homology to other NOS family members.
Conjugation	Un-conjugated
Alternate Names	Constitutive NOS; NOS type III; Nitric oxide synthase, endothelial; Endothelial NOS; eNOS; EC-NOS; NOSIII; cNOS; EC 1.14.13.39; ECNOS

Application Instructions

Application table

Application	Dilution
ELISA	1:1000
WB	1:500

Application Note: WB: Antibody is suggested to be diluted in 5% skimmed milk/Tris buffer with 0.04% Tween20 and incubated for 1 hour at room temperature.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

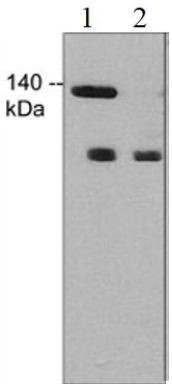
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 50% glycerol, 1 mg/ml BSA, and 0.05% Sodium azide
Preservative	0.05% Sodium azide
Stabilizer	1 mg/ml BSA

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Nos3
Gene Full Name	nitric oxide synthase 3, endothelial cell
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.
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. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Metabolism antibody; Neuroscience antibody
Calculated Mw	133 kDa
PTM	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 (By similarity). Phosphorylation of Ser-114 by CDK5 reduces activity.

Images



ARG20525 anti-eNOS phospho (Ser632) antibody [M232] WB image

Western blot: 1) and 2) calyculin A (100 nM) treated Human umbilical vein endothelial cells for 30 min, 2) then the blots were treated with lambda phosphatase. The blots were stained with ARG20525 anti-eNOS phospho (Ser632) antibody [M232]. The antibody detects eNOS phospho (Ser632) at around 140 kda, and the 100 kda signal might be a non-specific signal.