Technical Data Sheet

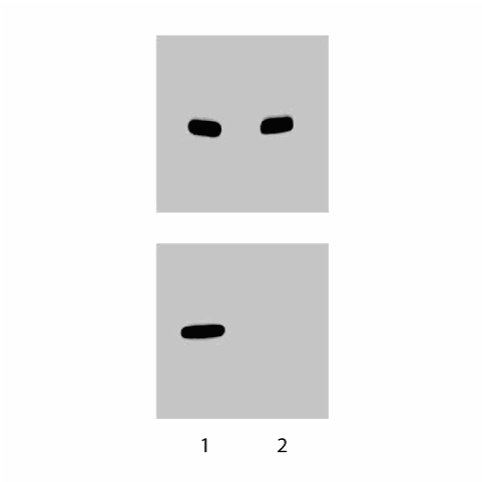
Purified Mouse Anti-Human eNOS (pS633)

Product Information

Material Number:	**612665**
Alternate Name:	Nitric Oxide Synthase
Size:	150 µg
Concentration:	250 µg/ml
Clone:	37/eNOS(S633)
Immunogen:	Phosphorylated Human eNOS (pS633) Peptide
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	140 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Nitirc oxide synthase (NOS), a cell type specific enzyme, catalyzes the synthesis of nitric oxide (NO). NO is a short-lived radical that transmits signals involved in vasorelaxation, neurotransmission, and cytoxicity. In neurons and endothelial cells, constitutive NOS (cNOS) is activated by agonists that increase intracellular Ca2+ levels and enhance calmodulin binding. Neuronal NOS (nNOS) and endothelial NOS (eNOS) have recognition sites for NADPH, FAD, FMN, and calmodulin. eNOS has a unique N-myristylation consensus sequence that may explain its membrane localization. Various protein kinases have been implicated in regulation of eNOS activity, including AMPK, PKA, PKB/Akt, PKC, and CaM Kinase II. During VEGF stimulation, eNOS is transiently phosphorylated at Ser-1177 by PKB/Akt and dephosphorylated at Thr-495. At later time points, VEGF stimulation leads to an increase in Thr-495 phosphorylation mediated by PKC and a decrease in Ser-1177 phosphorylation. In addition, Ser-633 amd Ser-1177 are phosphorylated by PKA and PKG in vitro. Thus, eNOS activity may be regulated through complex phosphorylation events mediated by multiple kinases at various phosphorylation sites.



Western blot analysis for eNOS (pS633). *Human endothelial cells were either left untreated (lane 1) or were treated with 200 U/mL of lambda phosphatase for 1 hour at 37°C (lane 2). The top panel was probed with a mouse anti-eNOS antibody (Cat. No. 610296) and the bottom panel was probed with the mouse anti-eNOS (pS633) antibody at a 1:500 dilution with a band observable at ~ 140 kDa.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
610296	Purified Mouse Anti-eNOS/NOS Type III	50 µg	3/eNOS/NOS Type III

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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