Technical Data Sheet

Purified Mouse Anti-eNOS/NOS Type III

Product Information

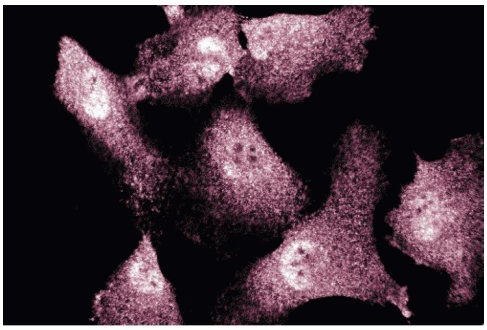
Material Number:	**610297**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	3/eNOS/NOS Type III
Immunogen:	Human eNOS aa. 1025-1203
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	140 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Nitric 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 cytotoxicity. In neurons and endothelial cells, constitutive NOS (cNOS) is activated by agonists that increase intracellular Ca[2+] levels and enhance calmodulin binding. Neuronal NOS (mNOS) and endothelial NOS (eNOS) have recognition sites for NADPH, FAD, FMN, and calmodulin and both are regulated in a similar manner. The human forms exhibit 52% amino acid identity. However, they are distinct gene products of about 155 kDa (mNOS) and 140 kDA (eNOS). The eNOS gene was cloned from human vascular endothelium as well as from bovine aortic endothelial cells (BAEC). eNOS protein has a unique N-myristylation consensus sequence that may explain its membrane localization.

Investigators should note that clone 3/eNOS/NOS Type III was never immunohistochemistry (IHC) tested on rat tissues while in development.

Western blot analysis of eNOS/NOS Type III on human endothelial cell lysate. *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of anti-eNOS/NOS Type III.*



Immunofluorescent staining of Endothelial Cells

Preparation and Storage

Store undiluted at -20°C.

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

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development
Immunoprecipitation	Tested During Development

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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)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Cao S, Yao J, McCabe TJ, et al. Direct interaction between endothelial nitric-oxide synthase and dynamin-2. Implications for nitric-oxide synthase function. *J Biol Chem.* 2001; 276(17):14249-14256. (Clone-specific: Immunofluorescence, Immunoprecipitation, Western blot)

Kincer JF, Uittenbogaard A, Dressman J, et al. Hypercholesterolemia promotes a CD36-dependent and endothelial nitric-oxide synthase-mediated vascular dysfunction. *J Biol Chem.* 2002; 277(26):23525-23533. (Clone-specific: Western blot)

Laufs U, Endres M, Stagliano N, et al. Neuroprotection mediated by changes in the endothelial actin cytoskeleton. *J Clin Invest.* 2000; 106(1):15-24. (Clone-specific: Immunofluorescence, Immunohistochemistry)

Thomas SR, Chen K, Keaney JF Jr. Hydrogen peroxide activates endothelial nitric-oxide synthase through coordinated phosphorylation and dephosphorylation via a phosphoinositide 3-kinase-dependent signaling pathway. *J Biol Chem.* 2002; 277(8):6017-6024. (Clone-specific: Western blot)

Zhao H, Dugas N, Mathiot C, et al. B-cell chronic lymphocytic leukemia cells express a functional inducible nitric oxide synthase displaying anti-apoptotic activity. *Blood.* 1998; 92(3):1031-1043. (Clone-specific: Flow cytometry)

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