Store at –20°C

#9586

eNOS (49G3) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #4846
UniProt ID #P29474

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, B, (M, R, Dg)	140 kDa	Rabbit IgG**

Background: Endothelial nitric-oxide synthase (eNOS) is an important enzyme in the cardiovascular system. It catalyzes the production of nitric oxide (NO), a key regulator of blood pressure, vascular remodeling and angiogenesis (1,2). The activity of eNOS is regulated by phosphorylation at multiple sites. The two most thoroughly studied sites are the activation site Ser1177 and the inhibitory site Thr495 (3). Several protein kinases including Akt/PKB, PKA and AMPK activate eNOS by phosphorylating Ser1177 in response to various stimuli (4,5). In contrast, bradykinin and hydrogen peroxide activate eNOS activity by promoting Thr495 dephosphorylation (6,7).

Specificity/Sensitivity: eNOS (49G3) Rabbit mAb detects endogenous levels of total eNOS protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human eNOS.

Background References:

(1) Fulton, D. et al. (2001) *J. Pharmacol. Exp. Ther.* 299, 818–824.

(2) Shaul, P.W. (2002) *Annu. Rev. Physiol.* 64, 749–774.

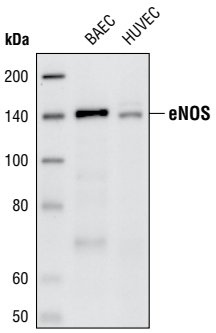
(3) Chen, Z.P. et al. (1999) *FEBS Lett.* 443, 285–289.

(4) Dimmeler, S. et al. (1999) *Nature* 399, 601–605.

(5) Fulton, D. et al. (1999) *Nature* 399, 597–601.

(6) Harris, M.B. et al. (2001) *J. Biol. Chem.* 276, 16587–16591.

(7) Thomas, S.R. et al. (2002) *J. Biol. Chem.* 277, 6017–6024.



Western blot analysis of extracts from BAEC and HUVEC cells, using eNOS (49G3) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

U.S. Patent No. 5,675,063

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IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.