Revision 7

Store at -20C

#9570

Phospho-eNOS (Ser1177) (C9C3) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H B Pg	Endogenous	140	Rabbit IgG	#P29474	4846

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:25

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.

For a carrier free (BSA and azide free) version of this product see product #55112.

Specificity/Sensitivity

Phospho-eNOS (Ser1177) (C9C3) Rabbit mAb detects endogenous levels of eNOS only when phosphorylated at Ser1177.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser1177 of human eNOS.

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 H_2O_2 activate eNOS activity by promoting both Ser1177 phosphorylation and Thr495 dephosphorylation (6,7).

Background References

1. Fulton, D. et al. (2001) *J Pharmacol Exp Ther* 299, 818-24.
2. Shaul, P.W. (2002) *Annu Rev Physiol* 64, 749-74.
3. Chen, Z.P. et al. (1999) *FEBS Lett* 443, 285-9.
4. Dimmeler, S. et al. (1999) *Nature* 399, 601-5.
5. Fulton, D. et al. (1999) *Nature* 399, 597-601.
6. Harris, M.B. et al. (2001) *J Biol Chem* 276, 16587-91.
7. Thomas, S.R. et al. (2002) *J Biol Chem* 277, 6017-24.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **B:** Bovine **Pg:** Pig

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Limited Uses

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