**Phospho-eNOS (Ser1177)**

**Antibody**

**Applications**

- Western

**Species Cross-Reactivity**

- H, B, Pg (M, R)

**Molecular Wt.**

- 140 kDa

**Source**

- Rabbit

**Recommended Antibody Dilutions:**

Western Blotting: 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

**Storage:**

- Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Recommended Secondary Antibodies:**

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

**Background References:**


**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:** Phospho-eNOS (Ser1177) Antibody detects endogenous levels of eNOS only when phosphorylated at Ser1177.

**Source/Purification:** Polyclonal antibodies are produced by immunizing rabbits with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Ser1177 of human eNOS. Antibodies are purified by protein A and peptide affinity chromatography.

**Selected Application References:**

Brouet, A. et al. (2001) Hsp90 ensures the transition from the early Ca²⁺-dependent to the late phosphorylation-dependent activation of the endothelial nitric-oxide synthase in vascular endothelial growth factor-exposed endothelial cells. J. Biol. Chem. 276, 32663–32669. Application: W.

