

Phospho-PSD93 (Tyr340) Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: R	Sensitivity: Endogenous	MW (kDa): 110	Source/Isotype: Rabbit	UniProt ID: #Q15700	Entrez-Gene Id: 1740
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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.

Specificity/Sensitivity

Phospho-PSD93 (Tyr340) Antibody detects endogenous levels of PSD93 only when phosphorylated at Tyr340.

Source / Purification

Antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr340 of human PSD93.

Background

Postsynaptic Density Protein 93 (PSD93) is a member of the PSD subfamily of the membrane-associated guanylate kinase (PSD-MAGUK) proteins. Structurally, it most closely resembles PSD95, consisting of an N-terminal variable segment followed by three PDZ domains, an SH3 domain, and an inactive guanylate kinase (GK) domain (1,2). PSD93 is expressed in neuronal cells and located at the synapse where it interacts with neuronal receptors and proteins including the NMDA receptor (2-4), K⁺ channels (5,6), and the AMPA receptor (7) to regulate their membrane localization and neuronal signaling. Research studies have implicated PSD93 in postsynaptic related persistent pain induction, making PSD93 a potential target for treatment of this syndrome (3). The phosphorylation site at Tyr340 of PSD93 was identified at Cell Signaling Technology (CST) using PhosphoScan[®], CST's MS/MS platform for phosphorylation site discovery. Phosphorylation of PSD93 at Tyr340 was observed in extracts isolated from reperfusion of ischemic rat brain.

Background References

1. Brenman, J.E. et al. (1996) *J Neurosci* 16, 7407-15.
2. Kim, E. et al. (1996) *Neuron* 17, 103-13.
3. Tao, Y.X. et al. (2003) *J Neurosci* 23, 6703-12.
4. Niethammer, M. et al. (1996) *J Neurosci* 16, 2157-63.
5. Kim, E. et al. (1995) *Nature* 378, 85-8.
6. Leyland, M.L. and Dart, C. (2004) *J Biol Chem* 279, 43427-36.
7. Elias, G.M. et al. (2006) *Neuron* 52, 307-20.

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

R: Rat

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