

PSD93 (D4Z4D) Rabbit mAb

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

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PSD93 (D4Z4D) Rabbit mAb recognizes endogenous levels of total PSD93 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro321 of human PSD93 protein.

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).

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

H: Human **M:** Mouse **R:** Rat

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