

Store at
-20C
#45737**Phospho-PSD95 (Ser295) (A8F8Z) Rabbit mAb****Orders:** 877-616-CELL (2355)
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: W, W-S	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 95	Source/Isotype: Rabbit IgG	UniProt ID: #P78352	Entrez-Gene Id: 1742
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Product Usage Information**Application**Western Blotting
Simple Western™**Dilution**1:1000
1:10 - 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

Phospho-PSD95 (Ser295) (A8F8Z) Rabbit mAb recognizes endogenous levels of PSD95 protein only when phosphorylated at Ser295.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser295 of human PSD95 protein.

Background

Postsynaptic Density protein 95 (PSD95) is a member of the membrane-associated guanylate kinase (MAGUK) family of proteins. These family members consist of an amino-terminal variable segment followed by three PDZ domains, an SH3 domain, and an inactive guanylate kinase (GK) domain. PSD95 is a scaffolding protein involved in the assembly and function of the postsynaptic density complex (1-2). PSD95 participates in synaptic targeting of AMPA receptors through an indirect manner involving stargazin and related transmembrane AMPA receptor regulatory proteins (TARPs) (3). It is implicated in experience-dependent plasticity and plays an indispensable role in learning (4). Mutations in PSD95 are associated with autism (5).

JNK1 phosphorylates PSD95 at Ser295, enhancing synaptic accumulation of PSD95 and potentiating excitatory post-synaptic currents through PSD95's increased ability to recruit AMPA receptors. In addition, synaptic depression requires dephosphorylation of Ser295 (6).

Background References

1. Cao, J. et al. (2005) *J. Cell Biol* 168, 117-26.
2. Chetkovich, D.M. et al. (2002) *J. Neurosci.* 22, 6415-25.
3. Cai, C. et al. (2006) *J. Biol. Chem.* 281, 4267-73.
4. Yao, W.D. et al. (2004) *Neuron* 41, 625-38.
5. Cline, H. (2005) *Curr. Biol.* 15, R203-5.
6. Kim, M.J. et al. (2007) *Neuron* 56, 488-502.

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 **W-S:** Simple Western™**Cross-Reactivity Key****H:** Human **M:** Mouse **R:** Rat**Trademarks and Patents**

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