Revision 1

#3919 Store at -20C

Phospho-PSD95 (Tyr236/Tyr240) Antibody

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	R	Endogenous	95	Rabbit	#P78352	1742

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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-PSD95 (Tyr236/Tyr240) Antibody detects endogenous levels of PSD95 protein only when phosphorylated at Tyr236 or Tyr240.

Species predicted to react based on 100% sequence homology

Human, Mouse

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr236 and Tyr240 of human PSD95. Antibodies are purified by protein A and peptide affinity chromatography.

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).

Phospho-PSD95 (Tyr236/Tyr240) Antibody is directed against previously unpublished PSD95 tyrosine phosphorylation sites at Tyr236 and Tyr240 that were identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's MS/MS platform for phosphorylation site discovery. Phosphorylation of PSD95 at Tyr236 and Tyr240 was observed in extracts isolated from ischemic rat brain. The sites were independently found in a large-scale identification of tyrosine phosphorylation sites from murine brain (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. Ballif, B.A. et al. (2008) *J. Proteome Res.* 7, 311-8.

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

Cross-Reactivity Key

R: Rat

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