



**Qty:** 100 µg/400 µl

**Rabbit anti-PSD-95 (CT)**

**Catalog No.** 51-6900

**Lot No.** See product label

## Rabbit anti-PSD-95 (CT)

### FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. The antibody is peptide affinity-purified from rabbit antiserum.

**POLYCLONAL ANTIBODY DESIGNATION (PAD):** B102

**ISOTYPE:** Rabbit Ig

### IMMUNOGEN

KLH-conjugated synthetic peptide derived from the C-terminal region of human PSD-95.

### SPECIFICITY

This antibody recognizes the 95 kDa PSD-95 protein. Cross reactivity with an unknown protein at ~50 kDa has been observed in Western blots with rat brain homogenates. Western blots with mouse brain homogenates did not show such a band. Positive reactivity of this antibody was confirmed on Western blots of rat brain homogenates and lysates of PSD-95-transfected HEK293 (human embryonic kidney) cells.

### REACTIVITY

This antibody is confirmed reactive with rat, mouse and human PSD-95. The reactivity of this antibody with PSD-95 from other species has not been determined.

	ELISA	Immuno- fluorescence	Immuno- precipitation <sup>(1)</sup>	Western blotting <sup>(1)</sup>
Sample				
Human	+	+	not tested	+
Mouse	+	+	not tested	+
Rat	+	+	+	+
Immunogen	+			

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.1-1.0 µg/ml  
**Immunofluorescence:** 0.5-1.0 µg/ml  
**Immunoprecipitation:** 5 µg/IP reaction  
**Western Blotting:** 1 µg/ml

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long term storage. Avoid repeated freezing and thawing.

(cont'd)

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## BACKGROUND

PSD-95 belongs to a class of proteins referred to as MAGUKs (membrane associated guanylate kinases). Canonical MAGUK proteins contain one or three PDZ (PSD-95/discs large/zona occludens-1) domains, an SH3 domain, and a guanylate kinase homology domain. PSD-95 and several other MAGUK and PDZ containing proteins (eg. PSD-93, SAP-97, SAP-102, MALS/Veli proteins<sup>(2)</sup>) are enriched in the post synaptic density.<sup>(3)</sup> These proteins appear to regulate synaptic function by acting as molecular scaffolds to organize and cluster signaling machinery at synapses, in part by interaction of their PDZ domains with carboxy-terminal T/SXV motifs present on synaptic proteins including NMDA receptors and Shaker type K<sup>+</sup> channels. PSD-95 has also been shown to link NMDA receptors to the downstream signal transduction protein neuronal nitric oxide synthetase (nNOS) via a novel PDZ:PDZ interaction with nNOS.<sup>(4)</sup>

## REFERENCES

1. McGee-A-W. and Bredt-D-S. Identification of an intramolecular interaction between the SH3 and guanylate kinase domains of PSD-95. J. Biol. Chem. 274:17431-17436 (1999).
2. Jo K, Derin R, Li M, Bredt DS. Characterization of MALS/Velis-1, -2, and -3: a family of mammalian LIN-7 homologs enriched at brain synapses in association with the postsynaptic density-95/NMDA receptor postsynaptic complex. J. Neurosci., 19:4189-4199 (1999).
3. Ziff EB. Enlightening the postsynaptic density. Neuron 19:1163-1174 (1999).
4. Karen S. Christopherson, Brian J. Hillier, Wendell A. Lim, and David S. Bredt. PSD-95 Assembles a Ternary Complex with the N-Methyl-D-aspartic Acid Receptor and a Bivalent Neuronal NO Synthase PDZ Domain. J Biol Chem, 274:27467-27473 (1999).

## RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Shp x PSD-95 (NT)	B122	51-6700
Rb x PSD-93	B111	51-6800
Rb x Velis-1	ZMAL1	51-5000
Rb x Velis-2	ZMAL2	51-5400
Rb x Velis-3	ZMAL3	51-5600
Rb x Cypin	B115	51-7300
Rb x NMDA-Receptor 1	2NR2	51-3600
Ms x NMDA-Receptor 2A	A3-2D10	32-0600
Ms x NMDA-Receptor 2B	B3-13B11	32-0700
Rb x NMDA Receptor 2B	2K11	71-8600
Rb x NMDA NR1 splice variant N1 (Ab2)	DBVN1	51-5800
Rb x NMDA NR1 splice variant C2 (Ab2)	DBVC2	51-5900
Rb x NMDA NR1 splice variant C2' (Ab2)	DBVC2P	51-6000
Rb x NMDA NR1 splice variant N1 (Ab1)	TRVN1	51-4300
Rb x NMDA NR1 splice variant C1 (Ab1)	TRVC1	51-4400
Rb x NMDA NR1 splice variant C2 (Ab1)	TRVC2	51-4500
Rb x NMDA NR1 splice variant C2' (Ab1)	TRVC2P	51-4600
Ms x $\alpha$ -CaM Kinase II	CB $\alpha$ -2	13-7300
Ms x $\beta$ -CaM Kinase II	CB $\beta$ -1	13-9800
Rb x Glycine Receptor	--	51-5300
Ms x Nitrotyrosine	HM11	32-1900
Rb x Synapsin-1	--	51-5200
Rb x Synaptophysin	Z66	18-0130
Ms x Tyrosine Hydroxylase	1hy1	32-2100
Ms x Ubiquitin	Ubi-1	13-1600

\*Polyclonal Antibody Designation

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Unconjugated	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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