



Qty: 100 µg/400 µl

Rabbit anti-PSD-93

Catalog No. 34-4700

Lot No. See product label

## Rabbit anti-PSD-93

### FORM

This polyclonal antibody is supplied as a 400 µl aliquot at a concentration of 0.25 mg/ml in phosphate buffered saline (PBS), pH 7.4, containing 0.1% sodium azide (NaN<sub>3</sub>). The antibody is epitope-affinity-purified from rabbit antiserum.

**POLYCLONAL ANTIBODY DESIGNATION (PAD):** ZMD.98

**ISOTYPE:** Rabbit Ig

### IMMUNOGEN

A synthetic peptide derived from the mid region of PSD-93 protein.

### SPECIFICITY

This antibody recognizes the PSD-93/Chapsyn-110 protein, which migrates at approximately 103 kDa on SDS-PAGE.

### REACTIVITY

This antibody is confirmed reactive with rat and mouse PSD-93. Reactivity was confirmed by Western blotting and immunoprecipitation. Positive control includes rat brain. The reactivity of this antibody with PSD-93 from other species has not been determined.

Sample	Immuno-fluorescence	Immuno-precipitation	Western blotting
Mouse	nt	+++	nt
Rat	+++	nt	+++

\*nt: not tested

### 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.

**Immunofluorescence:** 1-3 µg/ml  
**Immunoprecipitation:** 5-10 µg/IP reaction  
**Western Blotting:** 0.1-1 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.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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**BACKGROUND**

PSD-93 (Post Synaptic Density 93) belongs to a class of proteins referred to as MAGUKs (membrane-associated guanylate kinases)<sup>(3,4)</sup>. MAGUKs are widely expressed in the brain and are critical elements of the cytoskeleton and of certain synapses<sup>(3)</sup>. 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. 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-93 and several other MAGUK and PDZ containing proteins (eg. PSD-95, SAP-97, SAP-102, MALS/Veli proteins<sup>(5)</sup>,) are enriched in the post synaptic density.<sup>(3)</sup> PSD-93 is expressed in discrete neuronal populations as well as in specific non-neuronal cells and exhibits complex molecular diversity attributable to tissue-specific alternative splicing. PSD-93, like PSD-95, binds to nNOS<sup>(6)</sup> and to the NMDA receptor 2B. PSD-93, however, is unique among PSD-95/SAP-90 family members in its expression in cerebellar Purkinje neuron cell bodies and dendrites.

**REFERENCES**

1. Brenman, J.E., et al; *J Neurosci* 16(23):7407-7415 (1996).
2. Brenman, J.E., et al; *J Neurosci* 18(21):8805-8813 (1998).
3. Craven, S.E. and Bredt, D.S.; *Cell* 93:495-498 (1998).
4. Ziff, E.B.; *Neuron* 19(6):1163-1174 (1997).
5. Jo, K., et al; *J Neurosci* 19(11):4189-4199 (1999).
6. Christopherson, K.S., et al; *J Biol Chem* 274(39):27467-27473 (1999).

**RELATED PRODUCTS**

Product	Clone or PAD*	Cat. No.
Sh anti-PSD-95 (NT)	B122	51-6700
Rb anti-PSD-95 (CT)	B102	51-6900
Rb anti-Velis-1	ZMAL1	51-5000
Rb anti-Velis-2	ZMAL2	51-5400
Rb anti-Velis-3	ZMAL3	51-5600
Rb anti-Cypin	B115	51-7300
Ms anti-NMDA Receptor 1	54.1	32-0500
Ms anti-NMDA Receptor 1A + 1D	5C4	32-0800
Ms anti-NMDA Receptor 2A	A3-2D10	32-0600
Ms anti-NMDA Receptor 2B	B3-13B11	32-0700
Rb anti-NMDA Receptor 2B	ZK11	71-8600
Rb anti-NMDA NR1 splice variant N1	DBVN1	51-5800
Rb anti-NMDA NR1 splice variant C2	DBVC2	51-5900
Rb anti-NMDA NR1 splice variant C2'	DBVC2P	51-6000
Rb anti-NMDA NR2C	-	51-4700
Ms anti- $\alpha$ -CaM Kinase II	CB $\alpha$ -2	13-7300
Ms anti- $\beta$ -CaM Kinase II	CB $\beta$ -1	13-9800
Rb anti-Glycine Receptor	-	51-5300
Ms anti-Nitrotyrosine	HM11	32-1900
Rb anti-Synapsin 1	-	51-5200
Ms anti-Tyrosine Hydroxylase	1hy1	32-2100
Ms anti-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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