

PSD-95 Monoclonal Antibody (6G6-1C9)

Product Specifications

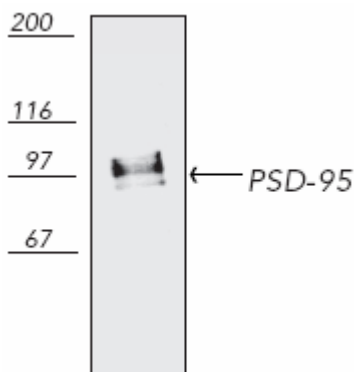
Catalog Number:	VAM-PS002
Host:	Mouse
Isotype:	IgG _{2a}
Species Reactivity:	Mouse, rat, and bovine
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 1:250 (ECL) ICC^{3,4}: 12.5 µg/mL
Predicted m.w:	~100 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH7.2, 0.09% azide in 50% glycerol
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Recombinant rat PSD-95 protein
Related Products:	
LYT-MB100	Mouse Brain Tissue Extract
LYT-RB100	Rat Brain Tissue Extract
SAB-100	Goat anti-Mouse IgG(Fab) Polyclonal Antibody, HRP Conjugate
VAM-PS001	PSD-95 Monoclonal Antibody (7E3-1B8)
VAM-PS005	SAP97 Monoclonal Antibody (RPI 197.4)
VAM-PS006	SAP102 Monoclonal Antibody (7D3 (mAb 119))

Background:

Postsynaptic density protein 95 kDa (PSD-95), also known as Synapse associated protein 90 kDa (SAP90), is a brain specific protein that is highly similar to the *Drosophila* dlg tumor suppressor protein¹. PSD-95 is a member of membrane associated proteins that are localized beneath the postsynaptic membrane of synapses in the CNS. PSD-95 contains a carboxyl-terminal guanylate kinase domain, an upstream SH3 domain, and three amino-terminal PDZ domains. PSD-95 interacts with NMDA receptor and Shaker-type K⁺ channel and contributes to their clustering and localization at the synaptic spines in hippocampal neurons and the pinneau terminal of cerebellar basket cells, respectively². The yeast two hybrid method revealed that the second PDZ domain in PSD-95 binds tightly to the carboxyl terminal (t) - S/TXV sequence of the NR2B subunit of NMDA receptor and of Shaker-type K⁺ channel. PSD-95 also binds to neuronal nitric oxide synthase, possibly through interaction between PDZ domains present on both proteins.

References:

1. Cho, K.O., Hunt, C.A. and Kennedy, M.B. (1992) *Neuron* **9**, 929-942.
2. Kennedy, M. (1997) *Trends in Neurosci.* **6**, 264-268.
3. Kornau, H.C., et al. (1995) *Science* **269**, 1737-1740.
4. Li, A.J., et al. (2002) *Eur J Neurosci.* **16**, 1313-1324.



Western blot analysis of bovine brain tissue extract, probed with PSD-95 Monoclonal Antibody (6G6-1C9)

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