PSD95 Recombinant Antibody [SR38-09] - Rat IgG1 (Chimeric) - BSA and Azide free

HA610256

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Mouse, Rat, Cynomolgus monkey, Pig
Applications:	IHC-Fr, WB
Molecular Wt:	Predicted band size: 80 kDa
Clone number:	SR38-09

Description: PSD-95 (postsynaptic density protein 95) also known as SAP-90 (synapse-associated protein 90) is a protein that in humans is encoded by the DLG4 (discs large homolog 4) gene. PSD-95 is a member of the membrane-associated guanylate kinase (MAGUK) family. With PSD-93 it is recruited into the same NMDA receptor and potassium channel clusters. These two MAGUK proteins may interact at postsynaptic sites to form a multimeric scaffold for the clustering of receptors, ion channels, and associated signaling proteins. PSD-95 is the best studied member of the MAGUK-family of PDZ domain-containing proteins. Like all MAGUK-family proteins, its basic structure includes three PDZ domains, an SH3 domain, and a guanylate kinase-like domain (GK) connected by disordered linker regions. It is almost exclusively located in the post synaptic density of neurons, and is involved in anchoring synaptic proteins. Its direct and indirect binding partners include neuroligin, NMDA receptors, AMPA receptors, and potassium channels. It plays an important role in synaptic plasticity and the stabilization of synaptic changes during long-term potentiation.

Immunogen: Synthetic peptide within human PSD95 aa 1-40.

Positive control: Mouse cerebellum tissue, rat cerebellum tissue, Mouse brain tissue lysate, Rat brain tissue lysate.

Subcellular location: Cell membrane, Postsynaptic density, Synapse, Cytoplasm, Cell projection, axon, dendritic spine, dendrite, Presynapse.

Database links: SwissProt: Q62108 Mouse | P31016 Rat

Recommended Dilutions:

IHC-Fr	1:500
WB	1:5,000

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

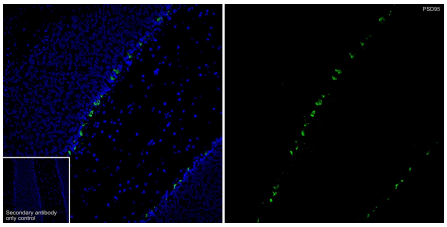

Fig1: Application: IHC-Fr

Species: Mouse

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

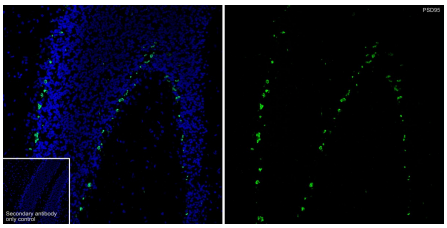

Fig2: Application: IHC-Fr

Species: Rat

Site: Cerebellum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

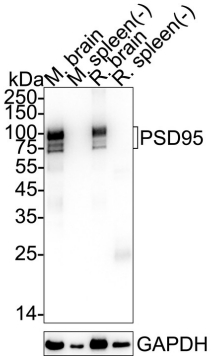

Fig3: Western blot analysis of PSD95 on different lysates with Rat anti-PSD95 antibody (HA610256) at 1/5,000 dilution.

Lane 1: Mouse brain tissue lysate
Lane 2: Mouse spleen tissue lysate (negative)
Lane 3: Rat brain tissue lysate
Lane 4: Rat spleen tissue lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 80 kDa
Observed band size: 75-100 kDa

Exposure time: 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610256) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rat IgG H&L - HRP Secondary Antibody (HA1023) at 1/5,000 dilution was used for 1 hour at room temperature.

Background References

1. Fred SM et al. TRKB interaction with PSD95 is associated with latency of fluoxetine and 2R,6R-hydroxynorketamine. Eur J Neurosci. 2023 Apr
2. Yang L et al. Targeting PSD95/nNOS by ZL006 alleviates social isolation-induced heightened attack behavior in mice. Psychopharmacology (Berl). 2022 Jan