abcam

Product datasheet

Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker ab2723

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Overview

Product name	Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker
Description	Mouse monoclonal [6G6-1C9] to PSD95 - Synaptic Marker
Host species	Mouse
Specificity	We do not guarantee IHC-P for mouse.
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat **Predicted to work with:** Cow, Zebrafish
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Rat retina tissue. WB: Rat and mouse hippocampus and forebrain tissue lysate.
General notes	The Protocols tab contains a Mouse on Mouse staining protocol with recommendations when using a mouse monoclonal antibody to stain mouse tissues and tips for reducing background. This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine

Purity	Protein G purified
Clonality	Monoclonal
Clone number	6G6-1C9
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab2723 in the following tested applications.

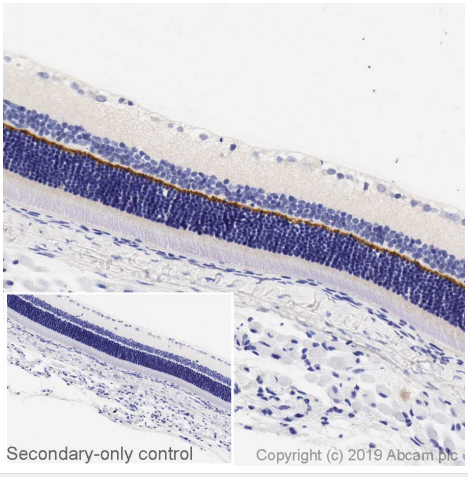
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. We do not guarantee IHC-P for mouse.
WB	★★★★★ (7)	Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 95 kDa (predicted molecular weight: 80 kDa).

Target

Function	Interacts with the cytoplasmic tail of NMDA receptor subunits and shaker-type potassium channels. Required for synaptic plasticity associated with NMDA receptor signaling. Overexpression or depletion of DLG4 changes the ratio of excitatory to inhibitory synapses in hippocampal neurons. May reduce the amplitude of ASIC3 acid-evoked currents by retaining the channel intracellularly. May regulate the intracellular trafficking of ADR1B.
Tissue specificity	Brain.
Sequence similarities	Belongs to the MAGUK family. Contains 1 guanylate kinase-like domain. Contains 3 PDZ (DHR) domains. Contains 1 SH3 domain.
Domain	The PDZ domain 3 mediates interaction with ADR1B. The L27 domain near the N-terminus of isoform 2 is required for HGS/HRS-dependent targeting to postsynaptic density.
Post-translational modifications	Palmitoylation of isoform 1 is required for targeting to postsynaptic density.
Cellular localization	Cell membrane. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Cell projection, axon. Cell junction, synapse. High levels in postsynaptic density of neurons in the forebrain. Also in presynaptic region of inhibitory synapses formed by cerebellar basket cells on axon hillocks of Purkinje cells.

Images

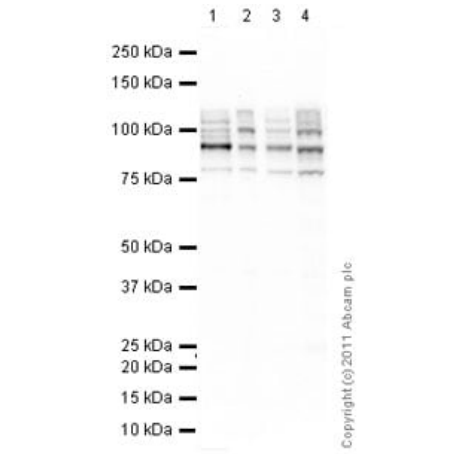


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723)

IHC image of ab2723 staining in formalin-fixed, paraffin-embedded rat retinal tissue, performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab2723, 2µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with hematoxylin and mounted with DPX.

Secondary-only control image is shown as insert.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723)

All lanes : Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723) at 5 µg/ml

Lane 1 : Hippocampus (Rat) Tissue Lysate
Lane 2 : Forebrain (Rat) Tissue Lysate
Lane 3 : Hippocampus (Mouse) Tissue Lysate
Lane 4 : Forebrain (Mouse) Tissue Lysate

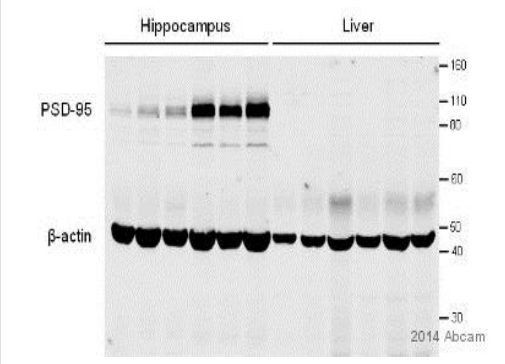
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

Performed under reducing conditions.

Predicted band size: 80 kDa
Observed band size: 95 kDa
Additional bands at: 100 kDa, 110 kDa, 80 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 3 minutes



Western blot - Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723)

Image courtesy of an AbReview submitted by Grant Corbett

Lanes 1-6 : Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723) at 1/1200 dilution
Lanes 7-12 : Anti-PSD95 antibody [6G6-1C9] - Synaptic Marker (ab2723) at 1/1200 dilution (18 hours at 4°C)

Lanes 1-6 : Mouse Hippocampus with Li-Cor Block Buffer, 1 hour at 21°C
Lanes 7-12 : Mouse Liver with Li-Cor Block Buffer, 1 hour at 21°C

Lysates/proteins at 30 µg per lane.

Secondary
All lanes : Li-Cor IRDye® Donkey anti-mouse 680LT at 1/18000 dilution

Performed under reducing conditions.

Predicted band size: 80 kDa
Additional bands at: 95 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 5 minutes

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