

Product datasheet

Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker ab13552

★★★★★ [3 Abreviews](#) [47 References](#) [6 Images](#)

Overview

Product name	Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker
Description	Mouse monoclonal [7E3-1B8] to PSD95 - Synaptic Marker
Host species	Mouse
Tested applications	Suitable for: WB, ICC/IF, IHC-P, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Cow, Human
Immunogen	Recombinant full length protein corresponding to Rat PSD95.
Positive control	ICC/IF: Rat primary hippocampal neurons; HaCaT cells; mouse backskin tissue section. WB: Rat brain membrane lysate; bovine brain tissue extract. Flow Cyt: K562 cells. IHC-P: Mouse backskin tissue.
General notes	<p>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.</p> <p>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</p>

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	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Protein G purified
Clonality	Monoclonal
Clone number	7E3-1B8
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab13552 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
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 100 kDa.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
IHC-P		1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt		Use 1µg for 10 ⁶ cells. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

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.

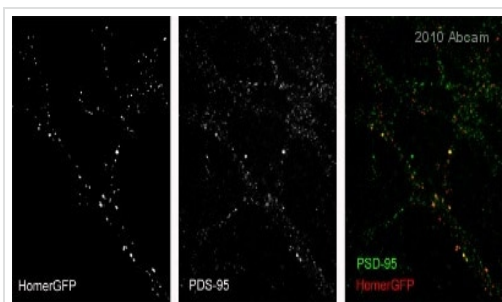
Post-translational modifications

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



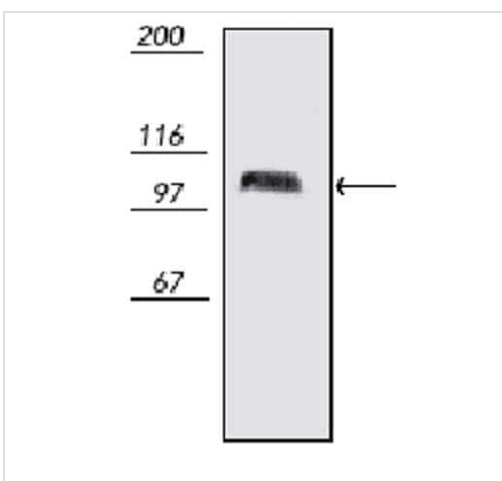
Immunocytochemistry/ Immunofluorescence - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

This image is courtesy of an anonymous Abreview

Central Panel: ab13552 staining PSD95 in rat primary hippocampal neurons by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.3% Triton and blocked with 3% BSA for 15 minutes at 20°C. Samples were incubated with primary antibody (1/200 in PBS-BSA 3%) for 30 minutes at 20°C. An Cy5[®]-conjugated Donkey polyclonal to mouse IgG (dilution 1/500) was used as secondary antibody.

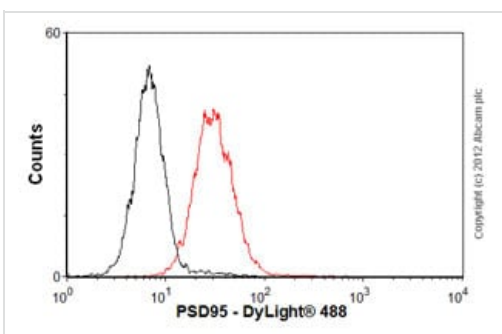
Left-hand panel: Homer GFP.

Right-hand panel: Merge.



Western blot - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

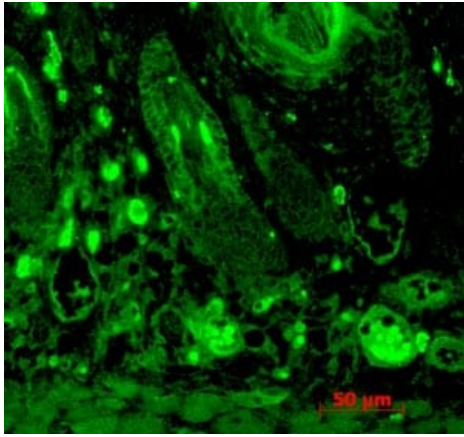
Western blot analysis of bovine brain tissue extract, probed with ab13552. Western blot analysis of bovine brain tissue extract, probed with ab13552.



Flow Cytometry - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

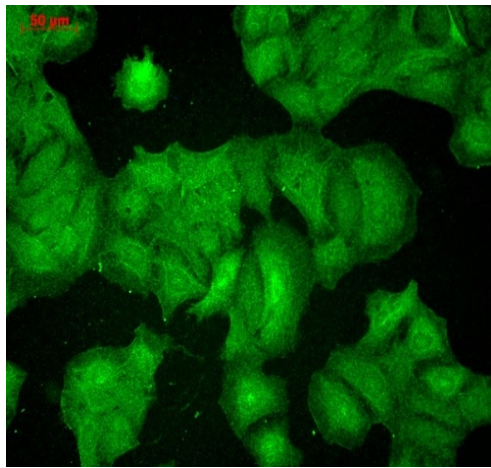
Overlay histogram showing K562 cells stained with ab13552 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab13552, 1 µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight[®] 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] ([ab91361](#), 1 µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.



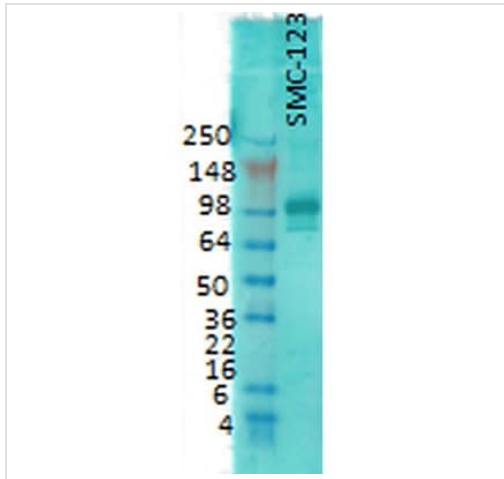
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

ab13552 at 1/100 dilution staining PSD95 in mouse backskin tissue section by Immunohistochemistry (Bouin's fixed paraffin embedded tissue sections). Tissue underwent heat mediated antigen retrieval in microwave with 2, 5 minutes incubation intervals in citrate buffer. The image show basal, hair follicle and dermal staining.



Immunocytochemistry/ Immunofluorescence - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

Immunocytochemistry/ Immunofluorescence analysis of HaCaT cells labeling PSD95 with ab13552 at 1/100 dilution. Cells were fixed with 00% cold methanol for 10 minutes at -20°C. A FITC Goat Anti-Mouse antibody at 1/50 was used as secondary. The image shows Filamentouslike staining.



Western blot - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552)

Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552) at 1/1000 dilution + Rat brain membrane lysate.

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