abcam

ab13552

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

Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552) is a mouse monoclonal antibody detecting PSD95 in **Western Blot, Flow Cytometry, IHC-P, ICC/IF**. Suitable for **Cow, Human, Mouse, Rat**.

- Over 50 publications
- Trusted since 2004

Lab Essentials

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Rat Dlg4. Database link P31016
Clone number	7E3-1B8
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Species	Mouse
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Expected

Species	Rat, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Rat
Dilution info	1 µg/mL

Notes	-

Species	Cow
Dilution info	1 µg/mL
Notes	-

Expected

Species	Human, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information DLG4

Function Postsynaptic scaffolding protein that plays a critical role in synaptogenesis and synaptic plasticity by providing a platform for the postsynaptic clustering of crucial synaptic proteins. 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. Also regulates AMPA-type glutamate receptor (AMPAR) immobilization at postsynaptic density keeping the channels in an activated state in the presence of glutamate and preventing

synaptic depression (By similarity). Under basal conditions, cooperates with FYN to stabilize palmitoyltransferase ZDHHC5 at the synaptic membrane through FYN-mediated phosphorylation of ZDHHC5 and its subsequent inhibition of association with endocytic proteins (PubMed:26334723).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Cow, Human, Mouse, Rat samples.

Trusted by the scientific community
Anti-PSD95 [7E3-1B8] - Synaptic Marker (ab13552) was first used in a scientific publication in 2004 and has been cited over 50 times in peer-reviewed journals.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

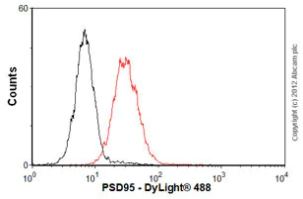
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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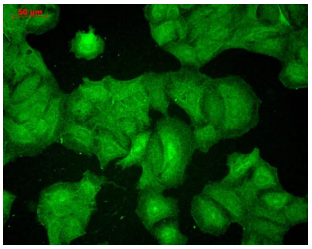
6 product images



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

PSD95 Flow Cytometry staining using mouse Anti-PSD95 antibody

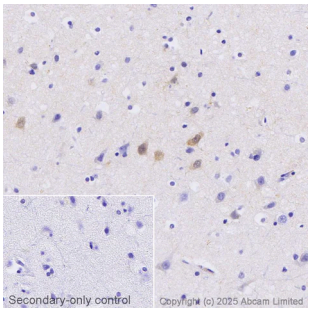
Overlay histogram showing K562 cells stained with ab13552 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab13552, 1µg/1x10^6 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, 1µg/1x10^6 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.



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

PSD95 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-PSD95 antibody

Immunocytochemistry/ Immunofluorescence analysis of 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.



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

PSD95 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of human cerebral cortex tissue using mouse Anti-PSD95 antibody

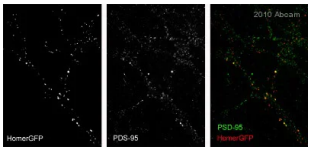
Immunohistochemical analysis of paraffin-embedded human cerebral cortex tissue* labelling PSD95 with ab13552 at 1ug/ml followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).
Positive staining in human cerebral cortex.

The section was incubated with ab13552 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0 epitope retrieval solution1) for 20 mins.

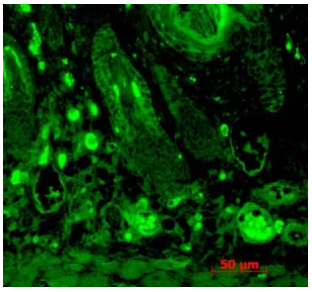
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.



This image is courtesy of an anonymous customer review

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

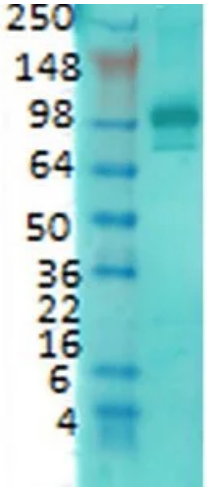
Central Panel: ab13552 staining PSD95 in rat primary hippocampal neurons by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.3% Triton and blocked with 3% BSA for 15 minutes at 20°C. Samples were incubated with primary antibody (1/200 in PBS-BSA 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.



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

PSD95 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-PSD95 antibody

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.



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

PSD95 Western blot staining of Rat brain membrane lysate using mouse Anti-PSD95 antibody

All lanes:
Western blot - Anti-PSD95 antibody [7E3-1B8] - Synaptic Marker (ab13552) at 1/1000 dilution

All lanes:
Rat brain membrane lysate

Observed band size: 80 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.