

Product datasheet

Anti-PSD95 antibody [K28/43] - Synaptic Marker ab192757

[3 References](#) [4 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-PSD95 antibody [K28/43] - Synaptic Marker |
| Description | Mouse monoclonal [K28/43] to PSD95 - Synaptic Marker |
| Host species | Mouse |
| Tested applications | Suitable for: ICC, IHC-P, WB |
| Species reactivity | Reacts with: Mouse, Rat, Human |
| Immunogen | Fusion protein. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | ICC: Primary mouse neurons/glia, DIV14 cells. |
| General notes | <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <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). Store at -20°C. |
| Storage buffer | pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine |
| Purity | Protein G purified |
| Clonality | Monoclonal |
| Clone number | K28/43 |
| Isotype | IgG2a |

Applications

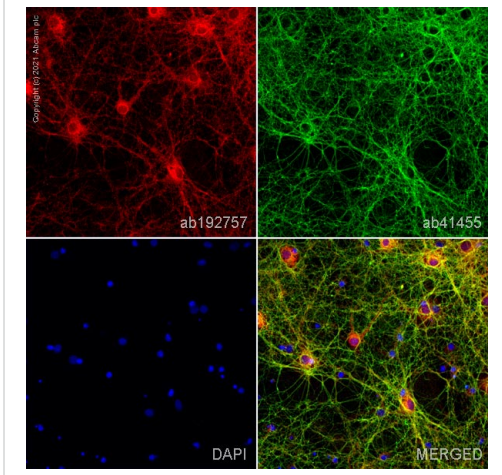
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab192757 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|---|
| ICC | | Use a concentration of 1 µg/ml. |
| IHC-P | | Use a concentration of 0.05 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| WB | | Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 80,95 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. |

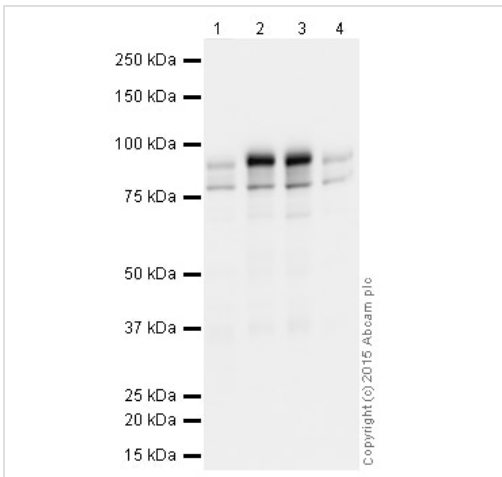
Images



Immunocytochemistry - Anti-PSD95 antibody
[K28/43] - Synaptic Marker (ab192757)

ab192757 staining PSD95 in primary hippocampal rat neurons/glia, (obtained from Neuromics, cat. no. PC35101), DIV14. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab192757 at 1µg/ml and **ab41455**, Rabbit Poly to Human SNAP25 (No Modifications). Cells were then incubated with **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in red) and **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in pseudocolour green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-PSD95 antibody [K28/43] -
Synaptic Marker (ab192757)

All lanes : Anti-PSD95 antibody [K28/43] - Synaptic Marker
(ab192757) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (**ab29466**)

Lane 2 : Brain (Mouse) Tissue Lysate

Lane 3 : Brain (Rat) Tissue Lysate

Lane 4 : Human Cerebral Cortex Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed
(HRP) at 1/5000 dilution

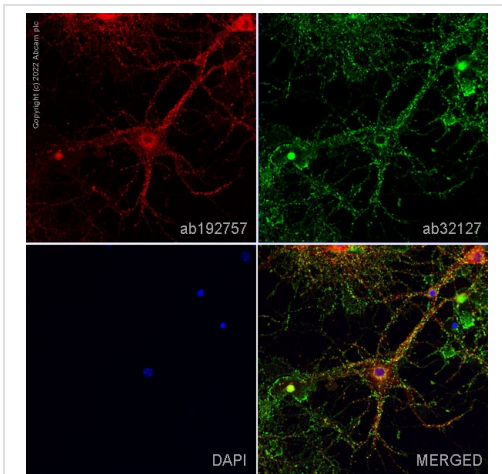
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 80 kDa

Observed band size: 80,95 kDa

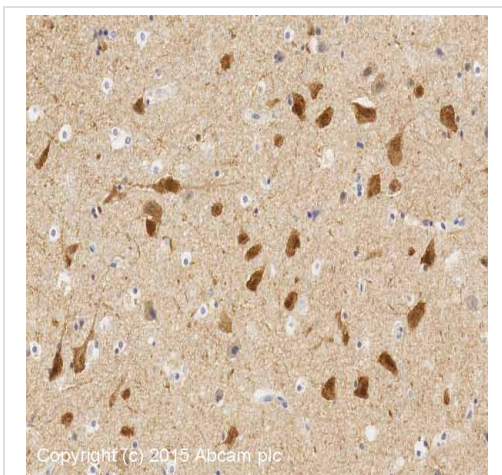
Exposure time: 30 seconds



Immunocytochemistry - Anti-PSD95 antibody
[K28/43] - Synaptic Marker (ab192757)

ab192757 staining PSD95 in primary mouse neurons/glia, DIV14 (prepared from E18 mouse hippocampal brain area, obtained from Transnetyx Tissue by BrainBits, LLC, cat.no. C57EHP) cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab192757 at 1µg/ml and **ab32127**, Rabbit mono Anti-Synaptophysin antibody [YE269]. Cells were then incubated with **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSD95 antibody [K28/43] - Synaptic Marker (ab192757)

IHC image of PSD95 [K28/43] staining in Human normal cerebral cortex formalin fixed paraffin embedded tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval (EDTA based pH 9.0 solution, epitope retrieval solution 2) for 20 mins. The section was then incubated with ab192757, 0.05µg/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 haematoxylin and mounted with DPX.

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.

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Promise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors