abcam

Product datasheet

Anti-Arc antibody [EPR18950] ab183183

敲除验证 重组 RabMAb

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概述

产品名称	Anti-Arc抗体[EPR18950]
描述	兔单克隆抗体[EPR18950] to Arc
宿主	Rabbit
经测试应用	**适用于:** WB, IHC-P, IP
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human hippocampus lysate; Mouse and rat hippocampus and brain lysates; Neuro-2a and SH-SY5Y cell lysates. IHC-P: Mouse hippocampus and cerebral cortex tissues. IP: Mouse brain lysate.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol, PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR18950

同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab183183于以下的经测试应用

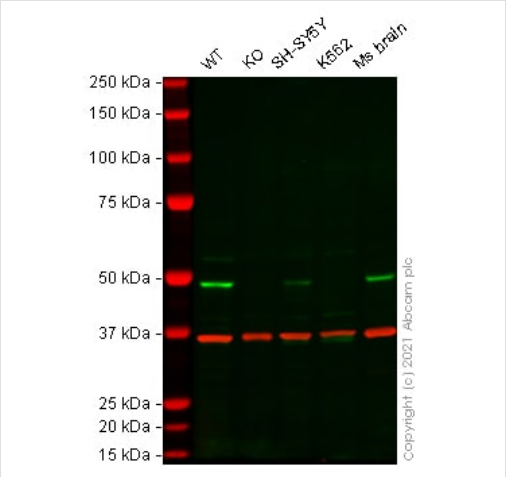
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/1000. Detects a band of approximately 45 kDa (predicted molecular weight: 45 kDa).
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		1/30.

靶标

功能	Required for consolidation of synaptic plasticity as well as formation of long-term memory. Regulates endocytosis of AMPA receptors in response to synaptic activity. Required for homeostatic synaptic scaling of AMPA receptors (By similarity). Plays a role in the regulation of cell morphology and cytoskeletal organization. Required in the stress fiber dynamics and cell migration.
序列相似性	Belongs to the ARC/ARG3.1 family.
细胞定位	Cytoplasm > cytoskeleton. Endosome. Cytoplasmic vesicle > secretory vesicle > acrosome. Cell junction > synapse > postsynaptic cell membrane > postsynaptic density. Cell projection > dendrite. Cell projection > dendritic spine. Cell junction > synapse. Associated with the cell cortex of neuronal soma and dendrites. Enriched in postsynaptic density of dendritic spines. Associated with the sperm tail (By similarity). Enriched on the plasma membrane.

图片



Western blot - Anti-Arc antibody [EPR18950] (ab183183)

All lanes : Anti-Arc antibody [EPR18950] (ab183183) at 1/500 dilution

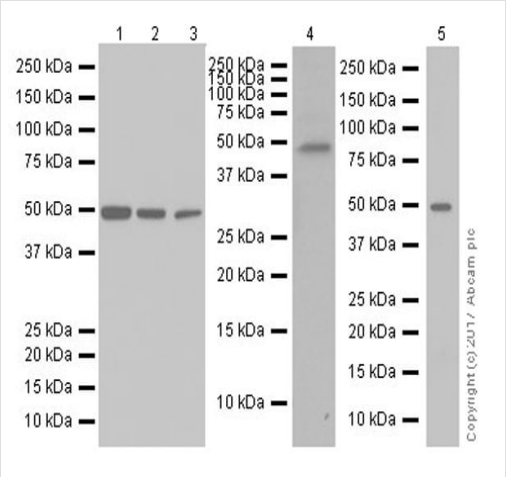
Lane 1 : Wild-type Neuro-2a cell lysate
Lane 2 : ARC knockout Neuro-2a cell lysate
Lane 3 : SH-SY5Y cell lysate
Lane 4 : K562 cell lysate
Lane 5 : Mouse Brain cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 45 kDa
Observed band size: 45 kDa

False colour image of Western blot: Anti-Arc antibody [EPR18950] staining at 1/500 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab183183 was shown to bind specifically to Arc. A band was observed at 45 kDa in wild-type Neuro-2a cell lysates with no signal observed at this size in arc knockout cell line **ab280071** (knockout cell lysate **ab280130**). To generate this image, wild-type and arc knockout Neuro-2a cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Anti-Arc antibody [EPR18950] (ab183183)

Lanes 1-4 : Anti-Arc antibody [EPR18950] (ab183183) at 1/1000 dilution
Lane 5 : Anti-Arc antibody [EPR18950] (ab183183) at 1/5000 dilution

Lane 1 : Mouse hippocampus lysate at 20 µg
Lane 2 : Rat hippocampus lysate at 20 µg
Lane 3 : Neuro-2a (mouse neuroblastoma cell line) whole cell lysate at 20 µg
Lane 4 : SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate at 10 µg
Lane 5 : Human hippocampus lysate at 10 µg

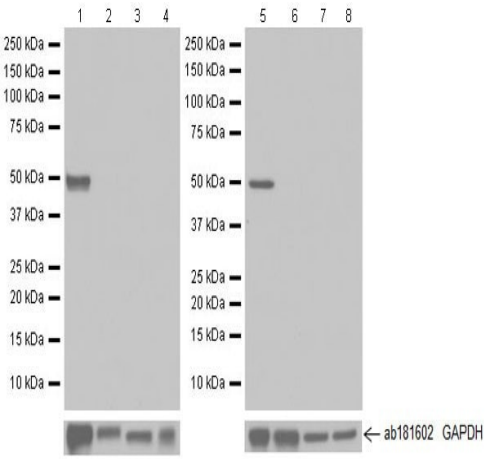
Secondary
Lanes 1-4 : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution
Lane 5 : VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at 1/4000 dilution

Developed using the ECL technique.

Predicted band size: 45 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-Arc antibody [EPR18950] (ab183183)

All lanes : Anti-Arc antibody [EPR18950] (ab183183) at 1/1000 dilution

Lane 1 : Mouse brain lysate
Lane 2 : Mouse heart lysate
Lane 3 : Mouse kidney lysate
Lane 4 : Mouse spleen lysate
Lane 5 : Rat brain lysate
Lane 6 : Rat heart lysate
Lane 7 : Rat liver lysate
Lane 8 : Rat spleen lysate

Lysates/proteins at 10 µg per lane.

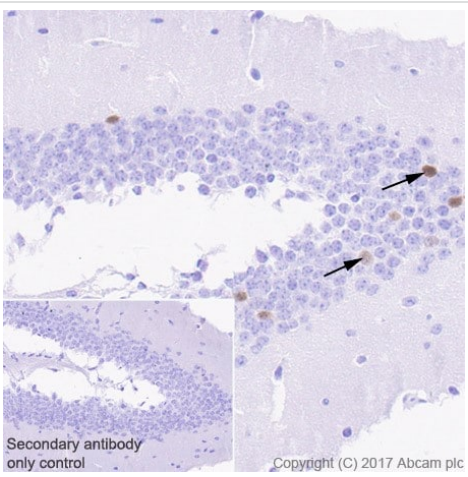
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 45 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

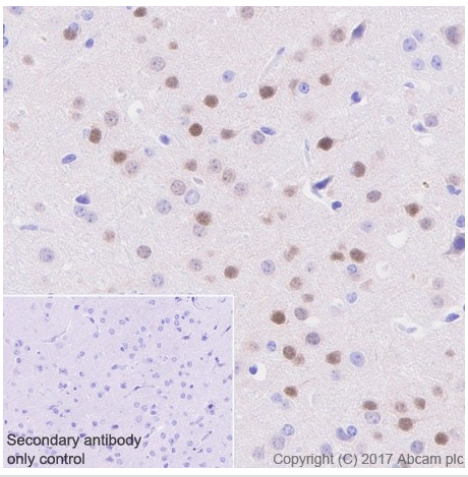


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Arc antibody [EPR18950] (ab183183)

Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue labeling Arc with ab183183 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Sparse nuclear staining (arrows) in the dentate gyrus of mouse hippocampus (PMID: 19750198, PMID: 19628007). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

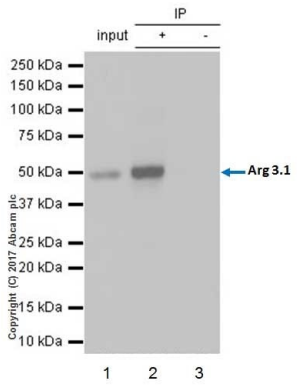


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Arc antibody [EPR18950] (ab183183)

Immunohistochemical analysis of paraffin-embedded mouse cerebral cortex tissue labeling Arc with ab183183 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Nuclear staining on neurons of mouse cerebral cortex. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Arc antibody [EPR18950] (ab183183)

Arc was immunoprecipitated from 0.35 mg of mouse brain lysate with ab183183 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab183183 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Mouse brain lysate 10 µg (Input).

Lane 2: ab183183 IP in mouse brain lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab183183 in mouse brain lysate.

Exposure time: 1 second

Blocking/dilution buffer: 5% NFDM/TBST.

Anti-Arc antibody [EPR18950] (ab183183)

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