

Product datasheet

Anti-ASIC1 antibody [EPR25411-161] ab300563

Recombinant RabMAb

9 Images

Overview

Product name	Anti-ASIC1 antibody [EPR25411-161]
Description	Rabbit monoclonal [EPR25411-161] to ASIC1
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P Unsuitable for: Flow Cyt (Intra) or ICC/IF
Species reactivity	Reacts with: Mouse, Rat Does not react with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Tissue lysates: Mouse cerebellum, brain and spinal cord; Rat brain and spinal cord. IHC-P: Mouse and rat dorsal root ganglion, HEK-293T transfected with a human ASIC1 expression vector. IP: Mouse cerebellum tissue lysate
General notes	ab300563 does not react in ICC and intracellular flow cytometry with mouse and rat species. 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 .

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR25411-161
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab300563 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

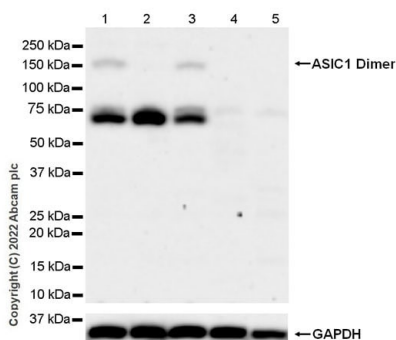
Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 59 kDa.
IP		1/30.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt (Intra) or ICC/IF.

Target

Function	Cation channel with high affinity for sodium, which is gated by extracellular protons and inhibited by the diuretic amiloride. Also permeable for Ca(2+), Li(+) and K(+). Generates a biphasic current with a fast inactivating and a slow sustained phase. Mediates glutamate-independent Ca(2+) entry into neurons upon acidosis. This Ca(2+) overloading is toxic for cortical neurons and may be in part responsible for ischemic brain injury. Heteromeric channel assembly seems to modulate channel properties. Functions as a postsynaptic proton receptor that influences intracellular Ca(2+) concentration and calmodulin-dependent protein kinase II phosphorylation and thereby the density of dendritic spines. Modulates activity in the circuits underlying innate fear.
Tissue specificity	Expressed in most or all neurons.
Sequence similarities	Belongs to the amiloride-sensitive sodium channel (TC 1.A.6) family. ACCN2 subfamily.
Post-translational modifications	Phosphorylation by PKA regulates interaction with PRKCABP and subcellular location. Phosphorylation by PKC may regulate the channel.
Cellular localization	Cell membrane. Localizes in synaptosomes at dendritic synapses of neurons. Colocalizes with DLG4.

Images



Western blot - Anti-ASIC1 antibody [EPR25411-161]
(AB300563)

All lanes : Anti-ASIC1 antibody [EPR25411-161] (ab300563) at 1/1000 dilution

Lane 1 : Mouse cerebellum tissue lysate

Lane 2 : Mouse brain tissue lysate

Lane 3 : Mouse spinal cord tissue lysate

Lane 4 : Mouse heart tissue lysate

Lane 5 : Mouse kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

Lane 1 : Goat anti-Rabbit IgG (HRP) with minimal cross reactivity with human IgG at 1/2000 dilution

Lanes 2-5 : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 59 kDa

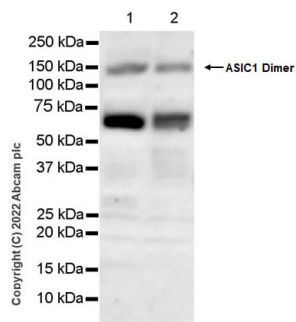
Observed band size: 70, 150 kDa

Exposure time: 48 seconds

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

The observed MW is consistent with what has been described in the literature (PMID: 19218436, PMID: 26252376).

Negative controls: mouse heart, kidney (PMID: 9037075).



Western blot - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

All lanes : Anti-ASIC1 antibody [EPR25411-161] (ab300563) at 1/1000 dilution

Lane 1 : Rat brain tissue lysate

Lane 2 : Rat spinal cord tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

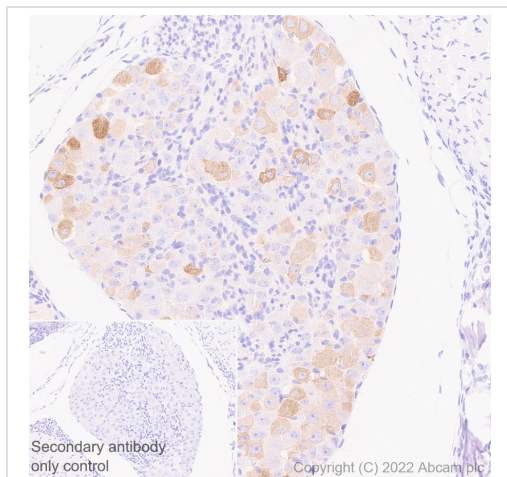
Predicted band size: 59 kDa

Observed band size: 70, 150 kDa

Exposure time: 3 minutes

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the literature (PMID: 19218436, PMID: 26252376).

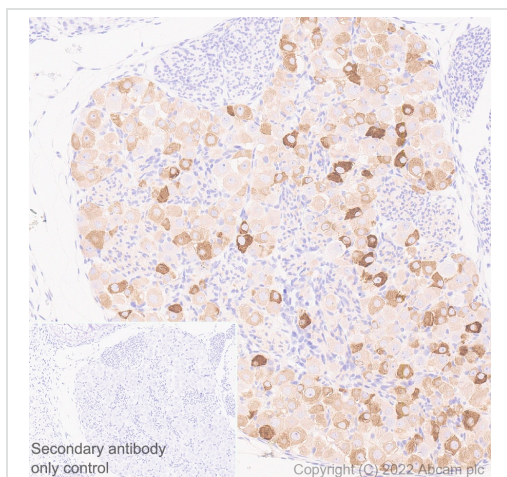


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

Immunohistochemical analysis of paraffin-embedded mouse dorsal root ganglion tissue labeling ASIC1 with ab300563 at 1/1000 dilution (0.498 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in mouse dorsal root ganglion neurons. The section was incubated with ab300563 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.

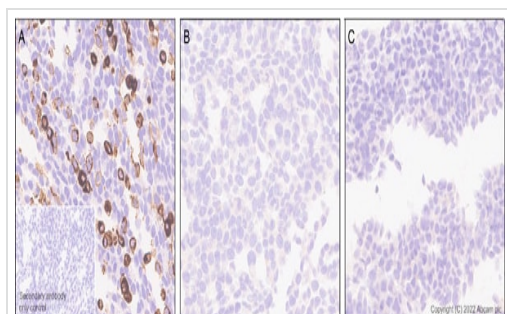


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

Immunohistochemical analysis of paraffin-embedded rat dorsal root ganglion tissue labeling ASIC1 with ab300563 at 1/1000 dilution (0.498 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in rat dorsal root ganglion neurons. The section was incubated with ab300563 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



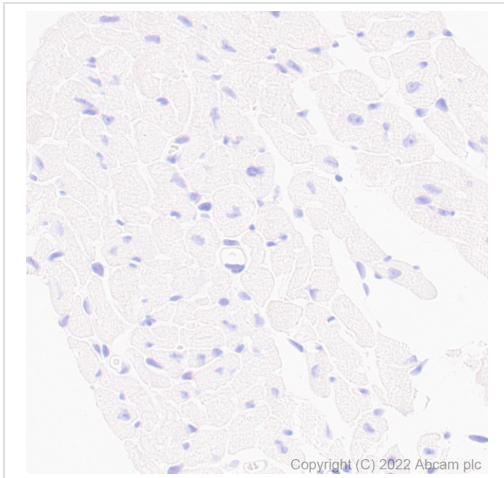
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

Immunohistochemical analysis of paraffin-embedded HEK-293T cells labeling ASIC1 with ab300563 at 1/5000 dilution (0.1 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining on (A) HEK-293T transfected with a human ASIC1 expression vector, no staining on (B) HEK-293T cells transfected with a human ASIC2a expression vector and (C) HEK-293T transfected with an empty vector. The section was incubated with ab300563 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody

LeicaDS9800 (Bond™ Polymer Refine Detection kit).

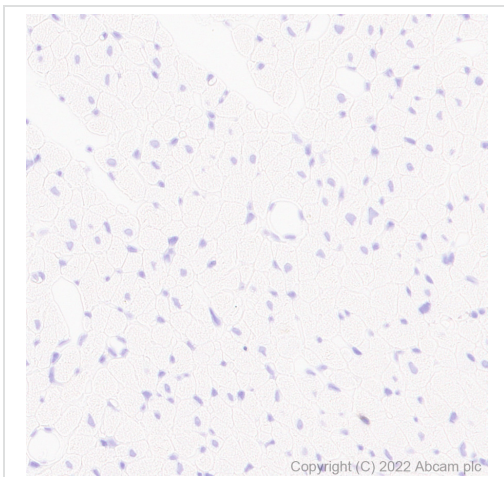
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

Immunohistochemical analysis of paraffin-embedded mouse cardiac muscle tissue labeling ASIC1 with ab300563 at 1/1000 dilution (0.498 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Negative control: no staining in mouse cardiac muscle. The section was incubated with ab300563 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

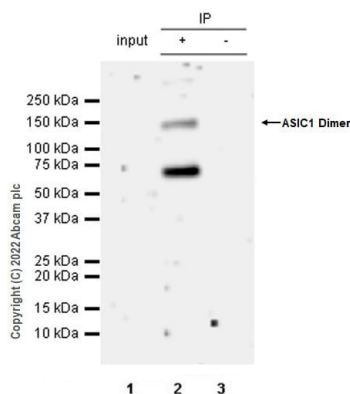
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ASIC1 antibody [EPR25411-161] (AB300563)

Immunohistochemical analysis of paraffin-embedded rat cardiac muscle tissue labeling ASIC1 with ab300563 at 1/1000 dilution (0.498 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Negative control: no staining in rat cardiac muscle. The section was incubated with ab300563 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunoprecipitation - Anti-ASIC1 antibody
[EPR25411-161] (AB300563)

ASIC1 was immunoprecipitated from 0.35 mg mouse cerebellum tissue lysate with ab300563 at 1/30 dilution (2 µg in 0.35 mg lysates). Western blot was performed on the immunoprecipitate using ab300563 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)([ab131366](#)) was used at 1/5000 dilution.

Lane 1: Mouse cerebellum tissue lysate 10 µg

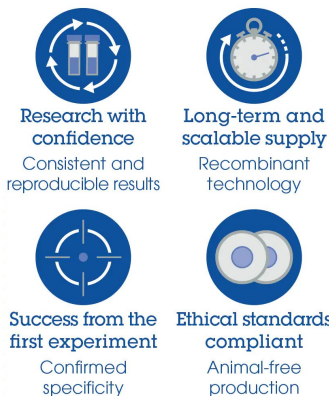
Lane 2: ab300563 IP in mouse cerebellum tissue lysate

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab300563 in mouse cerebellum tissue lysate

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 3 minutes

Why choose a recombinant antibody?



Anti-ASIC1 antibody [EPR25411-161] (AB300563)

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

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