

Product datasheet

Anti-Homer1 antibody [EPR15309] ab184955

Recombinant RabMAb

★★★★★ 2 Abreviews 5 References 7 Images

Overview

Product name	Anti-Homer1 antibody [EPR15309]
Description	Rabbit monoclonal [EPR15309] to Homer1
Host species	Rabbit
Tested applications	Suitable for: IP, WB, IHC-P, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human Homer1 aa 100-250. The exact sequence is proprietary. Database link: Q86YM7
Positive control	WB: HepG2 and human fetal brain lysates. IP: Human fetal brain lysate. IHC-P: Human gliocytoma tissue. IHC-Fr: Rat and mouse cerebrum tissue.

General notes

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](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work

with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

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: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR15309
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab184955** 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
IP		1/60 - 1/80.
WB	★★★★★	1/1000 - 1/10000. Predicted molecular weight: 40 kDa.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr	★★★★☆	1/250.

Target

Function	Postsynaptic density scaffolding protein. Binds and cross-links cytoplasmic regions of GRM1, GRM5, ITPR1, DNMT3, RYR1, RYR2, SHANK1 and SHANK3. By physically linking GRM1 and GRM5 with ER-associated ITPR1 receptors, it aids the coupling of surface receptors to intracellular calcium release. May also couple GRM1 to PI3 kinase through its interaction with AGAP2. Isoform 1 regulates the trafficking and surface expression of GRM5. Isoform 3 acts as a natural dominant negative, in dynamic competition with constitutively expressed isoform 1 to regulate synaptic metabotropic glutamate function. Isoform 3, may be involved in the structural
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changes that occur at synapses during long-lasting neuronal plasticity and development.

Sequence similarities

Belongs to the Homer family.

Contains 1 WH1 domain.

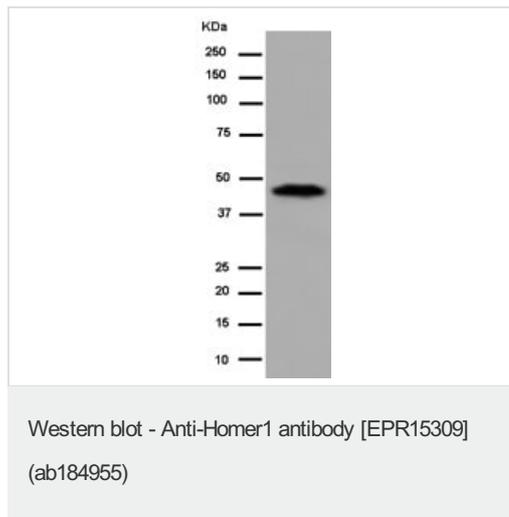
Domain

The WH1 domain interacts with the PPXXF motif in GRM1, GRM5, RYR1, RYR2, ITPR1, SHANK 1 and SHANK3.

Cellular localization

Cytoplasm. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Cell junction, synapse. Isoform 1 inhibits surface expression of GRM5 causing it to be retained in the endoplasmic reticulum.

Images



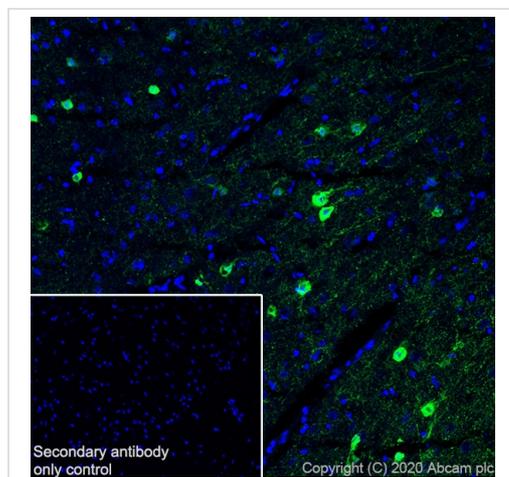
Anti-Homer1 antibody [EPR15309] (ab184955) at 1/5000 dilution + HepG2 cell lysate at 20 μ g

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 40 kDa

Additional bands at: 46 kDa. We are unsure as to the identity of these extra bands.

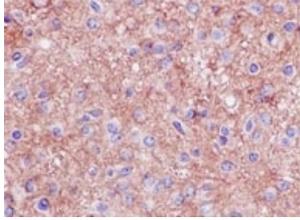


Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cerebrum tissue labeling Homer1 with ab184955 at 1/250 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) at 1/1000 (2 μ g/ml) dilution (Green). Positive staining on rat cerebrum. is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) at 1000 (2 μ g/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

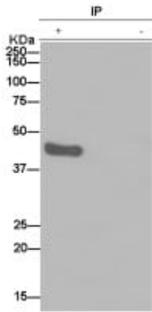
Immunohistochemistry (Frozen sections) - Anti-Homer1 antibody [EPR15309] (ab184955)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Homer1 antibody [EPR15309] (ab184955)

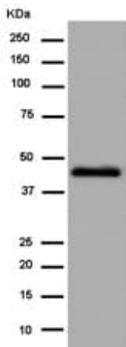
Immunohistochemical analysis of paraffin-embedded human gliocytoma labeling Homer with ab184955 at 1/500 dilution and HRP polymer for Rabbit IgG. Counterstained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Homer1 antibody [EPR15309] (ab184955)

Immunoprecipitation analysis of human fetal brain labeling Homer with ab184955 at 1/50 dilution and Anti-rabbit IgG (HRP) specific to the non reduced form of IgG at 1/1500 dilution (+) or PBS (-)



Western blot - Anti-Homer1 antibody [EPR15309] (ab184955)

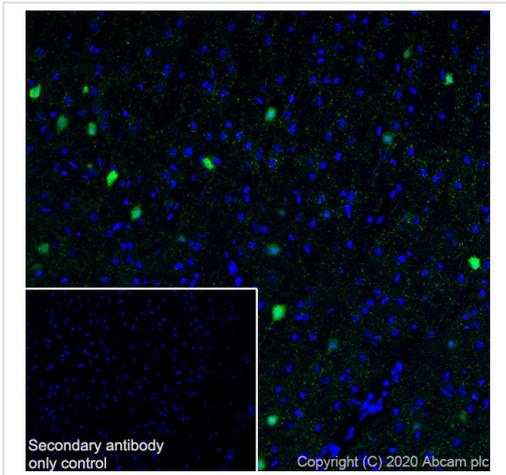
Anti-Homer1 antibody [EPR15309] (ab184955) at 1/20000 dilution + Human fetal brain lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 40 kDa

Additional bands at: 46 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebrum tissue labeling Homer1 with ab184955 at 1/250 dilution followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 ug/ml) dilution (Green). Positive staining on mouse cerebrum. is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 (2 ug/ml) dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Immunohistochemistry (Frozen sections) - Anti-Homer1 antibody [EPR15309] (ab184955)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Homer1 antibody [EPR15309] (ab184955)

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

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