

Product datasheet

Anti-Homer1 antibody [EPR15309] ab184955

Recombinant RabMAb

★★★★★ [2 Abreviews](#) [13 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 Unsuitable for: ICC
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
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	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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

The Abpromise guarantee

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)	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)	1/250.

Application notes

Is unsuitable for ICC.

Target

Function

Postsynaptic density scaffolding protein. Binds and cross-links cytoplasmic regions of GRM1, GRM5, ITPR1, DNM3, 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 changes that occur at synapses during long-lasting neuronal plasticity and development.

Sequence similarities

Belongs to the Homer family.
Contains 1 WH1 domain.

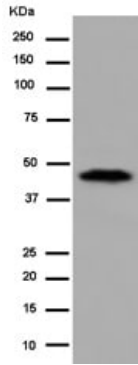
Domain

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



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

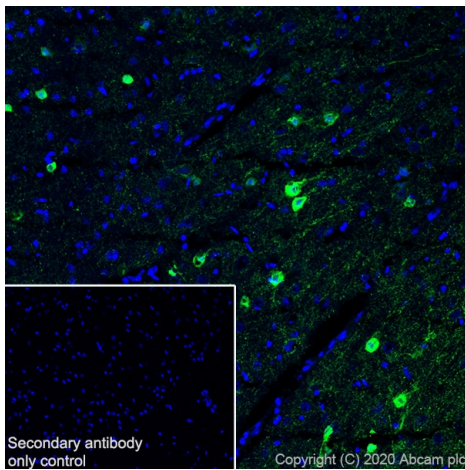
Anti-Homer1 antibody [EPR15309] (ab184955) at 1/5000 dilution + HepG2 cell lysate at 20 µg

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.

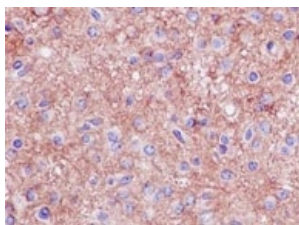


Immunohistochemistry (Frozen sections) - Anti-Homer1 antibody [EPR15309] (ab184955)

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 µg/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 µg/ml) dilution.

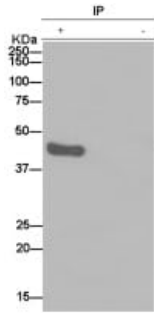
Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



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

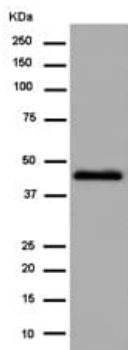
Immunohistochemical analysis of paraffin-embedded human gliocytoma labeling Homer with ab184955 at 1/500 dilution and HRP polymer for Rabbit IgG. Counterstained with hematoxylin.

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)

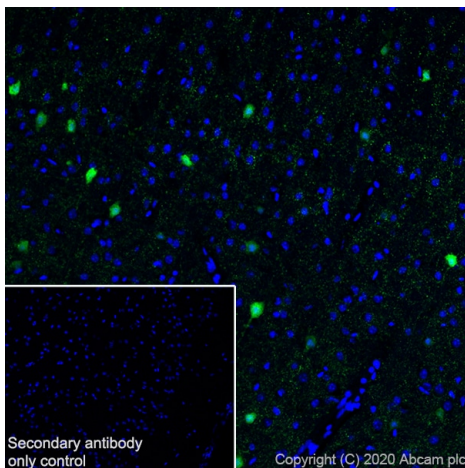
Anti-Homer1 antibody [EPR15309] (ab184955) at 1/20000 dilution + Human fetal brain lysate at 20 µg

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.




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

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).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-Homer1 antibody [EPR15309] (ab184955)

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

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