



Anti-Homer1 antibody ab211415

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Overview

Product name	Anti-Homer1 antibody
Description	Rabbit polyclonal to Homer1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment within Human Homer1 aa 50-350. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support team to discuss your requirements. NCBI Accession No. NP_004263.1. Database link: Q86YM7
	 Run BLAST with  Run BLAST with
Positive control	IMR32 whole cell lysate/extract; mouse and rat brain lysates/extracts; Human brain tissue; HeLa cells.
General notes	<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). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 10% Glycerol (glycerin, glycerine), 1.79% Tris glycine
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab211415 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
IHC-P		Use a concentration of 7.5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/500 - 1/20000. Predicted molecular weight: 40 kDa.
ICC/IF		1/100 - 1/1000.

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.

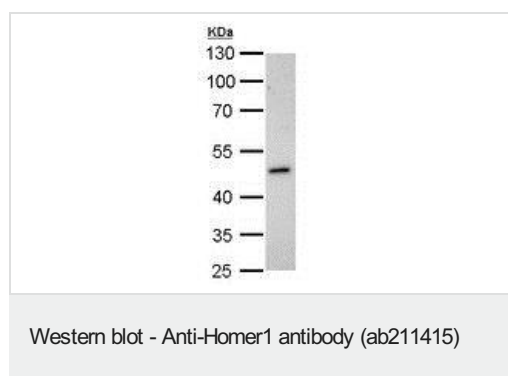
Domain

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.

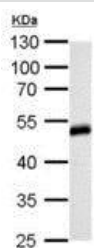
Images



Anti-Homer1 antibody (ab211415) at 1/1000 dilution + IMR32 whole cell lysate/extract at 30 µg

Predicted band size: 40 kDa

10 % SDS-PAGE

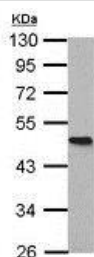


Western blot - Anti-Homer1 antibody (ab211415)

Anti-Homer1 antibody (ab211415) at 1/500 dilution + rat brain lysate/extract at 50 µg

Predicted band size: 40 kDa

10 % SDS-PAGE

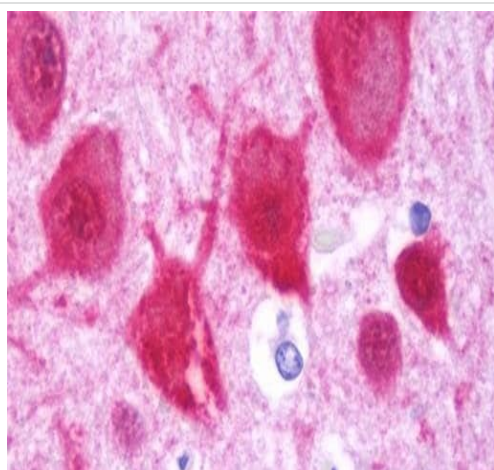


Western blot - Anti-Homer1 antibody (ab211415)

Anti-Homer1 antibody (ab211415) at 1/20000 dilution + mouse brain lysate/extract at 20 µg

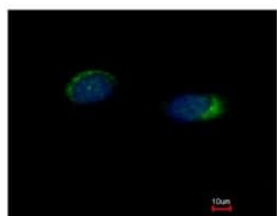
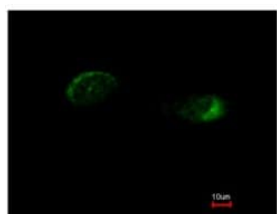
Predicted band size: 40 kDa

10 % SDS-PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Homer1 antibody (ab211415)

Immunohistochemical analysis of formalin-fixed paraffin-embedded Human brain tissue, labeling Homer1 using ab211415 at 7.5 µg/mL.



Immunofluorescence analysis of methanol-fixed HeLa cells, labeling Homer1 using ab211415 at a 1/500 dilution (green, above). The image below was costained with Hoechst 33342 (blue).

Immunocytochemistry/ Immunofluorescence - Anti-Homer1 antibody (ab211415)

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