

Anti-Glutamate receptor 4 antibody [EPR24283-69] - BSA and Azide free ab280206

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Glutamate receptor 4 antibody [EPR24283-69] - BSA and Azide free
Description	Rabbit monoclonal [EPR24283-69] to Glutamate receptor 4 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: Flow Cyt, ICC/IF, IHC-Fr or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Rat cerebellum and brain; Mouse cerebellum and brain; Human cerebellum tissue lysates. IHC-P: Mouse cerebrum; Rat cerebrum; Human cerebrum.
General notes	<p>ab280206 is the carrier-free version of ab280199.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <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.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR24283-69
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab280206 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		Use at an assay dependent concentration. Predicted molecular weight: 102 kDa.
IHC-P		Use at an assay dependent concentration.

Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-Fr or IP.

Target

Function Receptor for glutamate that functions as ligand-gated ion channel in the central nervous system and plays an important role in excitatory synaptic transmission. L-glutamate acts as an excitatory neurotransmitter at many synapses in the central nervous system. Binding of the excitatory neurotransmitter L-glutamate induces a conformation change, leading to the opening of the cation channel, and thereby converts the chemical signal to an electrical impulse. The receptor then desensitizes rapidly and enters a transient inactive state, characterized by the presence of bound agonist. In the presence of CACNG4 or CACNG7 or CACNG8, shows resensitization which is characterized by a delayed accumulation of current flux upon continued application of glutamate.

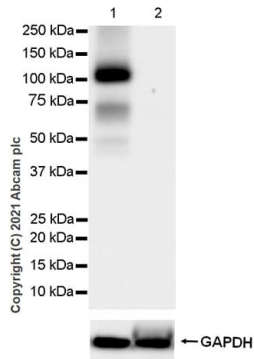
Sequence similarities Belongs to the glutamate-gated ion channel (TC 1.A.10.1) family. GRIA4 subfamily.

Domain The M4 transmembrane segment mediates tetramerization and is required for cell surface expression.

Post-translational modifications Palmitoylated. Depalmitoylated upon glutamate stimulation. Cys-611 palmitoylation leads to Golgi retention and decreased cell surface expression. In contrast, Cys-837 palmitoylation does not affect cell surface expression but regulates stimulation-dependent endocytosis. Phosphorylated at Ser-862 by PRKCG; phosphorylation increases plasma membrane-associated GR4 expression.

Cellular localization Cell membrane. Cell junction, synapse, postsynaptic cell membrane. Cell projection, dendrite.

Images



Western blot - Anti-Metabotropic Glutamate Receptor 4/MGLUR4 antibody [EPR24283-69] - BSA and Azide free (ab280206)

All lanes : Anti-Glutamate receptor 4 antibody [EPR24283-69] (**ab280199**) at 1/1000 dilution

Lane 1 : Human cerebellum tissue lysate at 20 µg

Lane 2 : Human liver tissue lysate at 40 µg

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 102 kDa

Observed band size: 100 kDa

This data was developed using **ab280199**, the same antibody clone in a different buffer formulation.

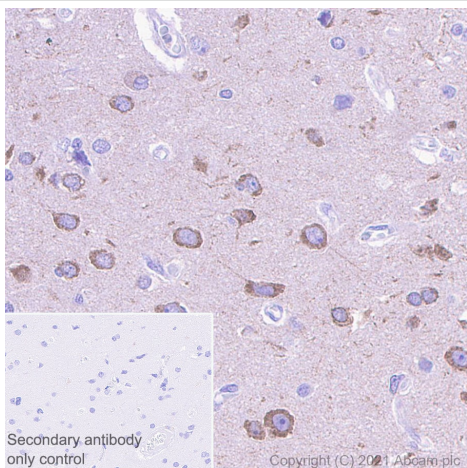
Blocking and diluting buffer and concentration: 5% NFDm/TBST

Samples are non-boiled as boiling may cause protein aggregates.

The expression pattern is consistent to previous reports (PMID:12657691, PMID:26985043, PMID:20549383)

Negative control: human liver (PMID:1372042)

Exposure time: 3.25 seconds



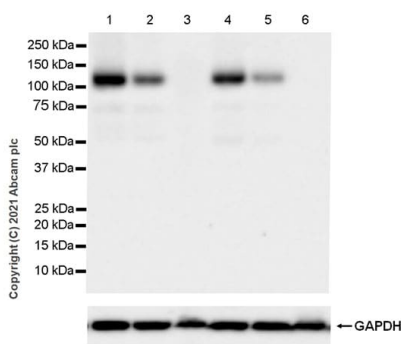
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 4/MGLUR4 antibody [EPR24283-69] - BSA and Azide free (ab280206)

This data was developed using [ab280199](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Glutamate receptor 4 with [ab280199](#) at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on human cerebrum. The section was incubated with [ab280199](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Western blot - Anti-Metabotropic Glutamate Receptor 4/MGLUR4 antibody [EPR24283-69] - BSA and Azide free (ab280206)

All lanes : Anti-Glutamate receptor 4 antibody [EPR24283-69] ([ab280199](#)) at 1/1000 dilution

Lane 1 : Rat cerebellum tissue lysate at 20 µg

Lane 2 : Rat brain tissue lysate at 20 µg

Lane 3 : Rat liver tissue lysate at 40 µg

Lane 4 : Mouse cerebellum tissue lysate at 20 µg

Lane 5 : Mouse brain tissue lysate at 20 µg

Lane 6 : Mouse liver tissue lysate at 40 µg

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 102 kDa

Observed band size: 100 kDa

This data was developed using [ab280199](#), the same antibody clone in a different buffer formulation.

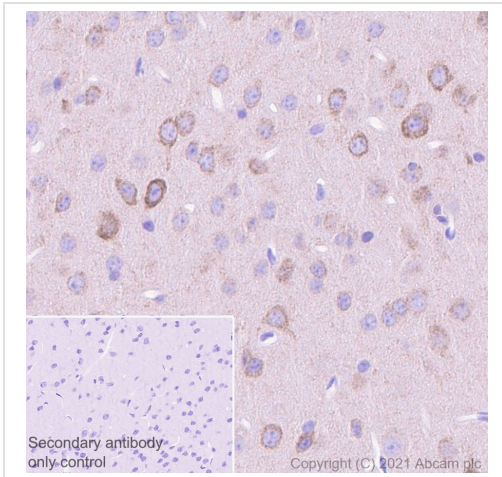
Blocking and diluting buffer and concentration: 5% NFDm/TBST

Samples are non-boiled as boiling may cause protein aggregates.

The expression pattern is consistent to previous reports (PMID:12657691, PMID:26985043, PMID:20549383)

Negative control: liver (PMID:1372042)

Exposure time: 7.75 seconds



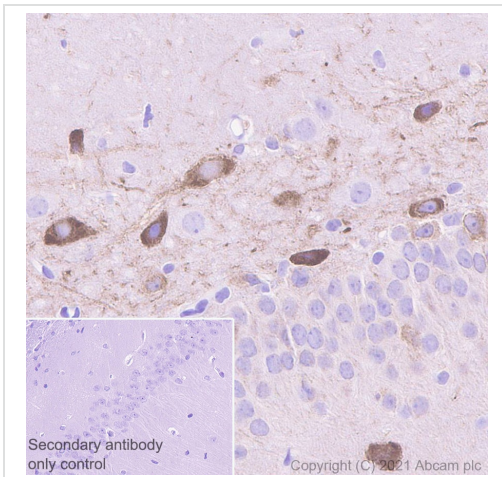
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 4/MGLUR4 antibody [EPR24283-69] - BSA and Azide free (ab280206)

This data was developed using [ab280199](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Glutamate receptor 4 with [ab280199](#) at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on mouse cerebrum. (PMID: 20662939) The section was incubated with [ab280199](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



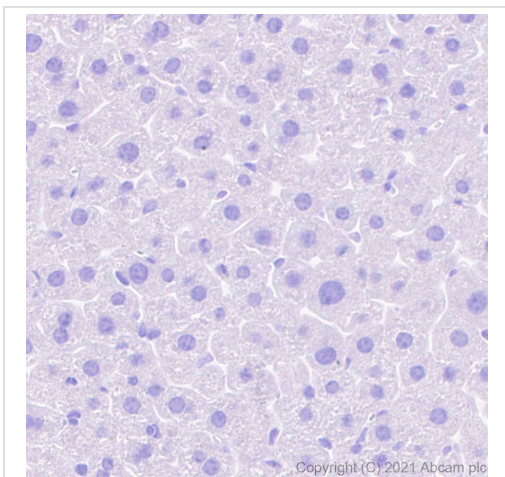
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This data was developed using [ab280199](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Glutamate receptor 4 with [ab280199](#) at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on rat cerebrum. The section was incubated with [ab280199](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 4/MGLUR4 antibody [EPR24283-69] - BSA and Azide free (ab280206)

This data was developed using **ab280199**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Glutamate receptor 4 with **ab280199** at 1/2000 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). **Negative control:** No staining on mouse liver. (PMID: 1372042) The section was incubated with **ab280199** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

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