abcam

Product datasheet

Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] ab302530

Recombinant RabMAb

12 Images

Overview

Product name	Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11]
Description	Rabbit monoclonal [EPR24530-11] to Metabotropic Glutamate Receptor 7/MGLUR7
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB, IHC-Fr, IP **Unsuitable for:** Flow Cyt (Intra) or ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Tissue lysates: Mouse and rat hippocampus, mouse spinal cord, SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate. IHC-P: Mouse and rat hippocampus, HEK-293T transfected with a Myc-His tagged GRM7 construct. IHC-Fr.: Rat hippocampus (fresh). IP: Tissue lysates: Mouse and rat hippocampus.
General notes	That antibody is unsuitable for human IHC-P and mouse IHC-FR. Also, AB302530 does not react in ICC and intracellular flow cytometry respectively with human and mouse+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: 7.2 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR24530-11
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab302530 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

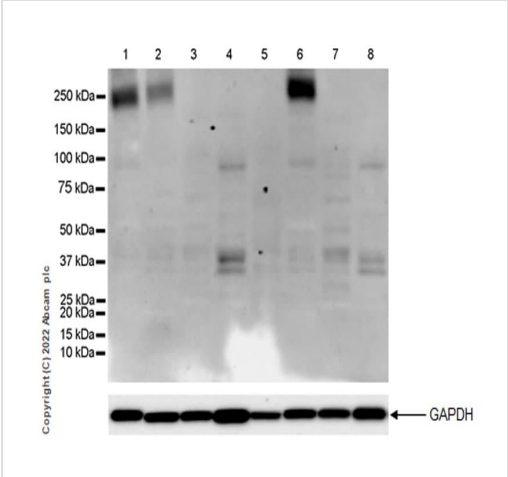
Application	Abreviews	Notes
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 260,110 kDa (predicted molecular weight: 102 kDa).
IHC-Fr		1/50.
IP		1/30.

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

Target

Function	Receptor for glutamate. The activity of this receptor is mediated by a G-protein that inhibits adenylate cyclase activity.
Tissue specificity	Expressed in many areas of the brain, especially in the cerebral cortex, hippocampus, and cerebellum. Expression of GRM7 isoforms in non-neuronal tissues appears to be restricted to isoform 3 and isoform 4.
Sequence similarities	Belongs to the G-protein coupled receptor 3 family.
Cellular localization	Cell membrane.

Images



Western blot - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

All lanes : Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (ab302530) at 1/1000 dilution

Lane 1 : Mouse hippocampus tissue lysate
Lane 2 : Mouse spinal cord tissue lysate
Lane 3 : Mouse heart tissue lysate
Lane 4 : Mouse skeletal muscle tissue lysate
Lane 5 : Mouse spleen tissue lysate
Lane 6 : Rat hippocampus tissue lysate
Lane 7 : Rat heart tissue lysate
Lane 8 : Rat skeletal muscle tissue lysate

Lysates/proteins at 20 µg per lane.

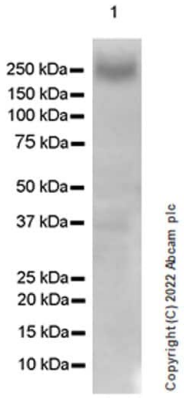
Predicted band size: 102 kDa
Observed band size: 260 kDa

Exposure time: 81 seconds

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

Negative controls: heart, skeletal muscle, spleen (PMID: 12052533).

260-kDa GRM7 dimer is observed. The molecular weight is consistent with literature (PMID: 33767338, 19109906).



Western blot - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (ab302530) at 1/1000 dilution + SH-SY5Y (human neuroblastoma epithelial cell) whole cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Developed using the ECL technique.

Predicted band size: 102 kDa

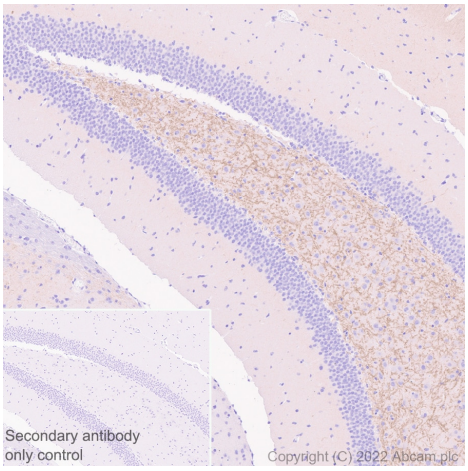
Observed band size: 260 kDa

Exposure time: 92 seconds

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

This blot was developed using a high sensitivity ECL substrate.

260-kDa GRM7 dimer is observed. The molecular weight is consistent with literature (PMID: 33767338, 19109906).

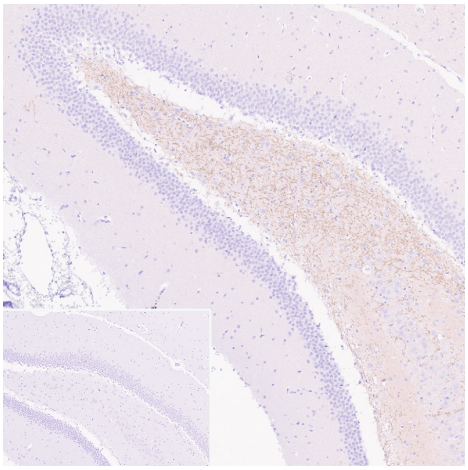


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of paraffin-embedded mouse hippocampus tissue labeling Metabotropic Glutamate Receptor 7/MGLUR7 with ab302530 at 1/1000 dilution (0.5 µg/mL) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on mouse hippocampus (PMID: 11007882, PMID: 9295396). The section was incubated with ab302530 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 solution 2) for 20 mins was used.

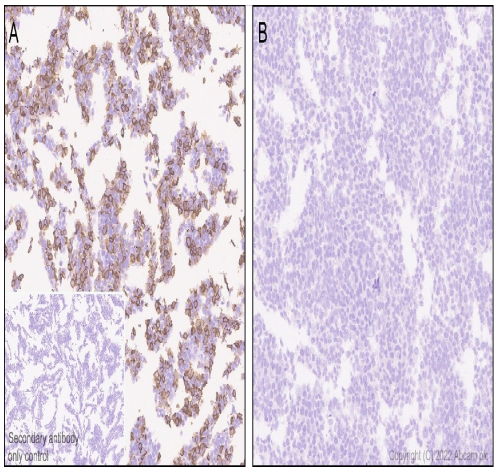


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of paraffin-embedded rat hippocampus tissue labeling Metabotropic Glutamate Receptor 7/MGLUR7 with ab302530 at 1/1000 dilution (0.5 µg/mL) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on rat hippocampus (PMID: 11007882, PMID: 9295396). The section was incubated with ab302530 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 solution 2) for 20 mins was used.

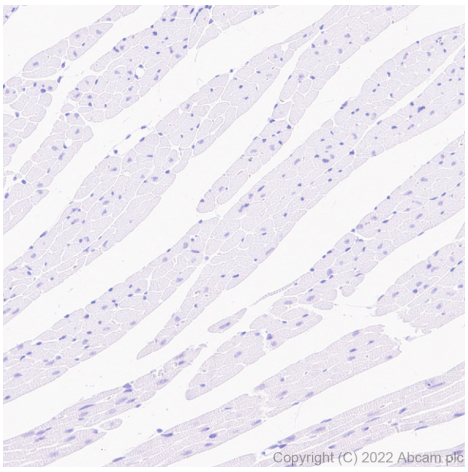


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of paraffin-embedded HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) labeling Metabotropic Glutamate Receptor 7 / MGLUR7 with ab302530 at 1/500 dilution (1 µg/mL) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on (A) HEK-293T transfected with a Myc-His tagged GRM7 construct, no staining on (B) HEK-293T transfected with empty plasmid. The section was incubated with ab302530 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 solution 2) for 20 mins was used.

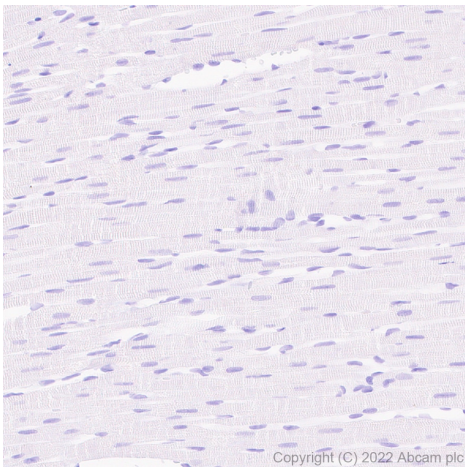


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of paraffin-embedded mouse cardiac muscle tissue labeling Metabotropic Glutamate Receptor 7/MGLUR7 with ab302530 at 1/1000 dilution (0.5 µg/mL) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). **Negative control**: no staining on mouse cardiac muscle. The section was incubated with ab302530 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 solution 2) for 20 mins was used.

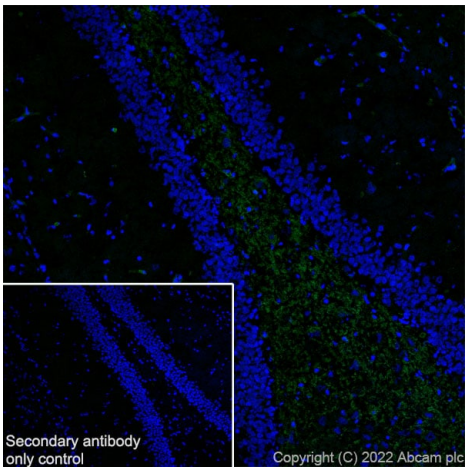


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of paraffin-embedded rat cardiac muscle tissue labeling Metabotropic Glutamate Receptor 7/MGLUR7 with ab302530 at 1/1000 dilution (0.5 µg/mL) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). **Negative control**: no staining on rat cardiac muscle. The section was incubated with ab302530 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**).

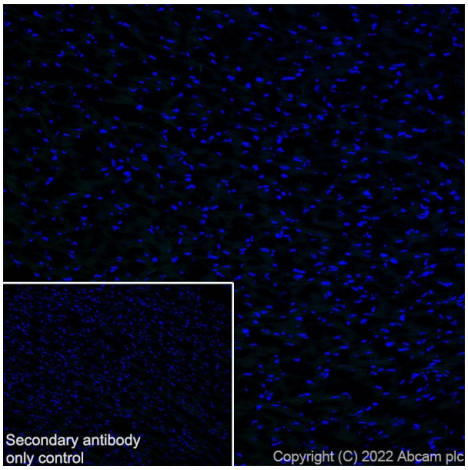
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Frozen sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat hippocampus (fresh) tissue labeling Metabotropic Glutamate Receptor 7 / MGLUR7 with AB302530 at 1/50 dilution (10.02 µg/mL) followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL) (Green). Positive staining on rat hippocampus is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).

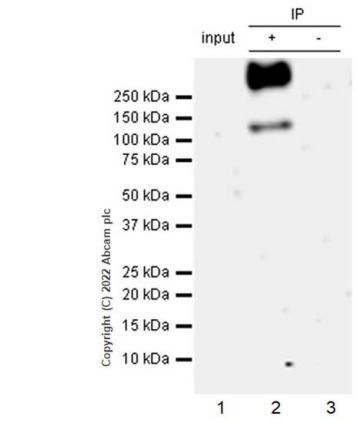


Immunohistochemistry (Frozen sections) - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

I

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat heart (fresh) tissue labeling Metabotropic Glutamate Receptor 7/MGLUR7 with AB302530 at 1/50 dilution (10.02 µg/mL)) followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL) (Green). **Negative control:** no staining on rat heart is observed (PMID 12052533). The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).



Immunoprecipitation - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Metabotropic Glutamate Receptor 7/MGLUR7 was immunoprecipitated from 0.35 mg mouse hippocampus tissue lysate with AB302530 at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using AB302530 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: Mouse hippocampus tissue lysate 10 µg (Inset)

Lane 2: AB302530 IP in Mouse hippocampus tissue lysate

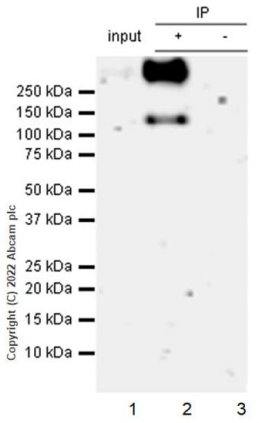
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of AB302530 in mouse hippocampus tissue lysate

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

Exposure time: 3 minutes.

Observed MW (kDa) 260,110.

260-kDa GRM7 dimer and 110-kDa GRM7 monomer are observed (PMID: 33767338).



Immunoprecipitation - Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Metabotropic Glutamate Receptor 7/MGLUR7 was immunoprecipitated from 0.35 mg rat hippocampus tissue lysate with AB302530 at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using AB302530 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: Rat hippocampus tissue lysate 10 µg (Inset)

Lane 2: AB302530 IP in rat hippocampus tissue lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of AB302530 in rat hippocampus tissue lysate

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

Exposure time: 3 minutes

Observed MW (kDa): 260, 110.

260-kDa GRM7 dimer and 110-kDa GRM7 monomer are observed (PMID: 33767338).

Anti-Metabotropic Glutamate Receptor 7/MGLUR7 antibody [EPR24530-11] (AB302530)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors