abcam

ab256589

Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free

Recombinant RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR2425Y
Purification technique	Affinity purification Protein A
Specificity	The Human species recommendation is based on the WB results. This antibody has been tested for IHC-P and IHC-Fr in Human samples and we obtain positive signal only in IHC-Fr. We do not recommend this antibody for IHC-P in Human samples.
Concentration	1.022 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Rat
Dilution info	-
Notes	Use of HRP-conjugated or polymerized HRP secondary antibodies, stronger signals have been found using the polymerized HRP secondary. We only recommend mouse and rat species for IHC-P.

Expected

Species	Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Not recommended

Species	Human, Rat, Mouse
Dilution info	-
Notes	-

EM

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	-
Notes	This antibody has been tested for IHC-P and IHC-Fr in Human samples and we obtain positive signal only in IHC-Fr. We do not recommend this antibody for IHC-P in Human samples.

Expected

Species	Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376- Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information GRM5

Function	G-protein coupled receptor for glutamate. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors. Signaling activates a phosphatidylinositol-calcium second messenger system and generates a calcium-activated chloride current. Plays an important role in the regulation of synaptic plasticity and the modulation of the neural network activity.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab256589 is the carrier-free version of ab76316.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide

and glycerol. 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.

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.

Compatibility
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.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

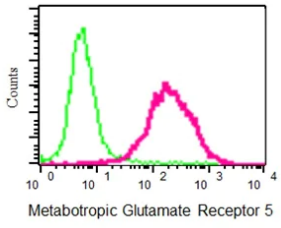
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



Flow Cytometry (Intracellular) - Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free (ab256589)

Metabotropic Glutamate Receptor 5 Flow Cytometry (Intracellular) staining using rabbit Anti-Metabotropic Glutamate Receptor 5 antibody

Intracellular flow cytometric analysis of permeabilized SH-SY5Y cells using ab76316 (red) at 1/20 or a rabbit IgG (ab172730) as a negative control (green). The cells were permeabilized with 2% PFA and a goat anti-rabbit IgG FITC was used as the secondary at 1/150.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76316).

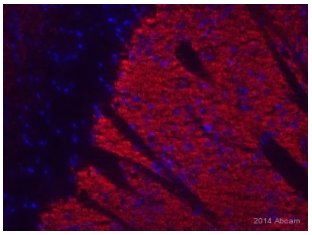
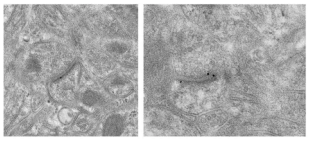


Image courtesy of Carl Hobbs, King College London, U.K.

Immunohistochemistry (Frozen sections) - Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free (ab256589)

Metabotropic Glutamate Receptor 5 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Metabotropic Glutamate Receptor 5 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab76316).
ab76316 staining Metabotropic Glutmate Receptor 5 in mouse caudate putamen/ Corpus callosum by immunohistochemistry (frozen sections). Tissue was fixed with formaldehyde and samples were blocked with 1% BSA for 10 minutes at 21°C, before incubation with the primary antibody (1/2000) for 16 hours at 21°C. An alexa fluor® 594 conjugated goat anti-rabbit IgG secondary was used at 1/500.



Images courtesy of Professor Richard Weinberg, UNC School of Medicine

Electron Microscopy - Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free (ab256589)

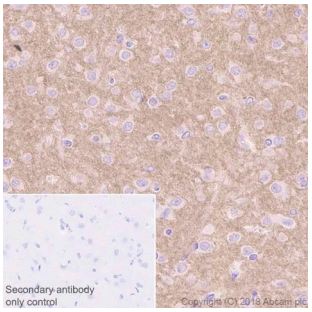
This data was developed using ab76316, the same antibody clone in a different buffer formulation. Postembedding immunogold labeling of mouse neocortex using Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] (ab76316). The tissue was embedded in Lowicryl HM20 resin. 60 nm sections were then cut and mounted on nickel mesh grids before undergoing antigen retrieval for 15 minutes in 0.01 M citrate buffer, pH 6 at 60°C.

The sections were then blocked in 1% BSA/TBSN pH 7.6 and incubated overnight at room temperature with Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] (ab76316) at 1:250. Sections were washed twice in TBSN pH 7.6, treated with 1% normal donkey serum/TBSN pH 8.2 for 30 minutes, before being incubated with donkey anti-rabbit IgG-Au 10-20 nm at 1:20 for two hours at room temperature.

Sections were then washed in TBSN pH 8.2, followed by water, before undergoing post-staining with 1% uranyl acetate and Sato's lead. They were then air dried before being transferred to an oven for 30 minutes at 60°C.

In these images you can see gold immunoparticles on the postsynaptic density of synapses.

(TBSN = 0.02M TRIS buffered saline (0.3 N, pH 7.6 or 8.2) with 0.005% Tergitol NP-10)

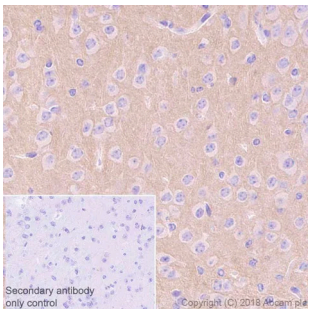


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free (ab256589)

Metabotropic Glutamate Receptor 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Metabotropic Glutamate Receptor 5 antibody

Immunohistochemical analysis of Paraffin-embedded rat cerebrum tissue sections labeling Metabotropic Glutamate Receptor 5 with ab76316 at 1/400 dilution followed by Goat Anti-Rabbit IgG H&L (HRP Polymer) secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated using ab93684 (Tris/EDTA buffer, pH 9.0).
Positive staining on rat cerebrum.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76316).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metabotropic Glutamate Receptor 5 antibody [EPR2425Y] - BSA and Azide free (ab256589)

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Positive staining on mouse cerebrum.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76316).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.