

## Product datasheet

# Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] ab252430

Recombinant RabMAb

[5 References](#) [7 Images](#)

### Overview

<b>Product name</b>	Anti-GABA A Receptor alpha 1 antibody [EPR23539-255]
<b>Description</b>	Rabbit monoclonal [EPR23539-255] to GABA A Receptor alpha 1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB, IHC-P <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: Mouse and rat cerebrum tissue. WB: Mouse and rat brain, cerebellum and hippocampus tissue lysate. Human brain and cerebellum tissue lysate. IP: Mouse cerebellum tissue lysate.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number                      EPR23539-255

Isotype                                IgG

## Applications

**The Abpromise guarantee**            Our **Abpromise guarantee** covers the use of ab252430 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		1/30.
WB		1/1000. Predicted molecular weight: 52 kDa.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

**Application notes**                      Is unsuitable for Flow Cyt or ICC/IF.

## Target

**Function**                                GABA, the major inhibitory neurotransmitter in the vertebrate brain, mediates neuronal inhibition by binding to the GABA/benzodiazepine receptor and opening an integral chloride channel.

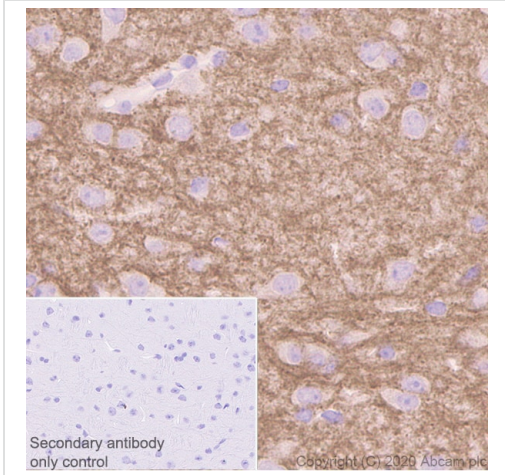
**Involvement in disease**            Defects in GABRA1 are the cause of childhood absence epilepsy type 4 (ECA4) [MIM:611136]. A subtype of idiopathic generalized epilepsy characterized by onset at age 6-7 years, frequent absence seizures (several per day) and bilateral, synchronous, symmetric 3-Hz spike waves on EEG. During adolescence, tonic-clonic and myoclonic seizures may develop. Absence seizures may either remit or persist into adulthood.

Defects in GABRA1 are the cause of juvenile myoclonic epilepsy type 5 (EJM5) [MIM:611136]. A subtype of idiopathic generalized epilepsy. Patients have afebrile seizures only, with onset in adolescence (rather than in childhood) and myoclonic jerks which usually occur after awakening and are triggered by sleep deprivation and fatigue.

**Sequence similarities**                Belongs to the ligand-gated ion channel (TC 1.A.9) family. Gamma-aminobutyric acid receptor (TC 1.A.9.5) subfamily. GABRA1 sub-subfamily.

**Cellular localization**                Cell junction > synapse > postsynaptic cell membrane. Cell membrane.

## Images

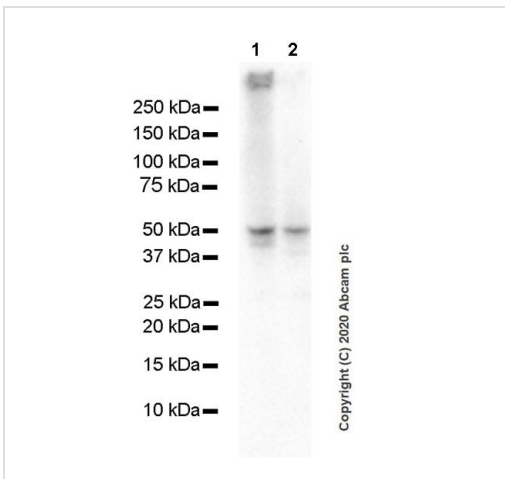


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430)

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling GABA A Receptor alpha 1 with ab252430 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on mouse cerebrum is observed (PMID:29467616). The section was incubated with ab252430 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> 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-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430)

**All lanes** : Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430) at 1/1000 dilution

**Lane 1** : Human brain tissue lysate

**Lane 2** : Human cerebellum tissue lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 52 kDa

**Observed band size:** 51 kDa

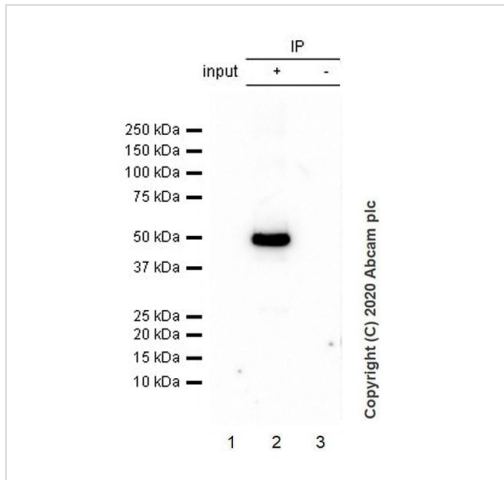
Blocking and diluting buffer and concentration: 5% NFDN/TBST.

This blot was developed using a higher sensitivity ECL substrate.

The expression profile/ molecular weight observed is consistent

with what has been described in the literature (PMID: 15542076, 19428632).

Exposure time: 3 minutes.



Immunoprecipitation - Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430)

GABA A Receptor alpha 1 was immunoprecipitated from 0.35 mg mouse cerebellum tissue lysate 10µg with ab252430 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab252430 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

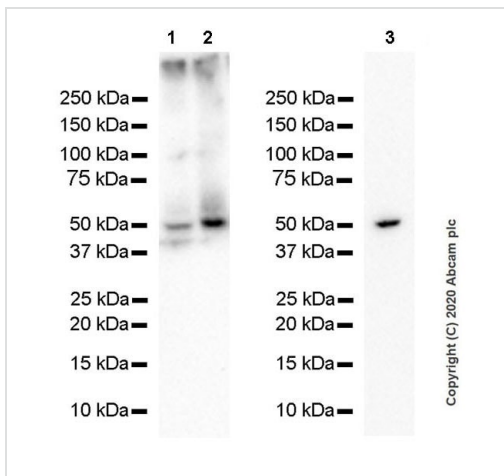
**Lane 1:** Mouse cerebellum tissue lysate 10µg.

**Lane 2:** ab252430 IP in mouse cerebellum tissue lysate.

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of ab252430 in mouse cerebellum tissue lysate.

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

Exposure time: 33 seconds.



Western blot - Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430)

**All lanes :** Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430) at 1/1000 dilution

**Lane 1 :** Mouse brain tissue lysate

**Lane 2 :** Mouse cerebellum tissue lysate

**Lane 3 :** Mouse hippocampus tissue lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 52 kDa

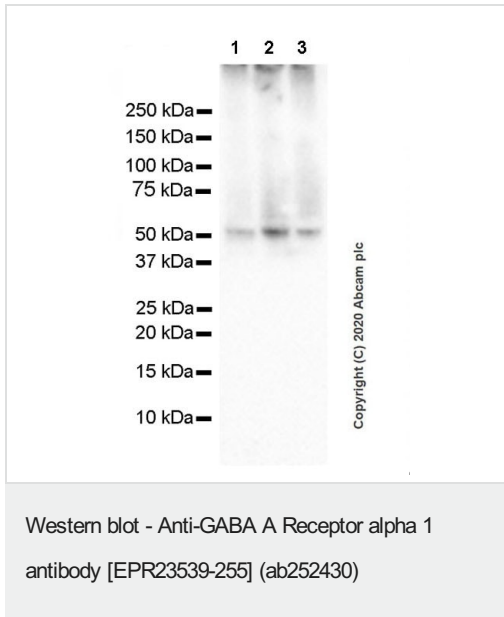
**Observed band size:** 51 kDa

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

This blot of Lane 1-2 was developed using a higher sensitivity ECL substrate.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 15542076, 19428632).

Exposure time: Lane 1-2: 156 seconds; Lane 3: 3 minutes.



**All lanes** : Anti-GABA A Receptor alpha 1 antibody [EPR23539-255] (ab252430) at 1/1000 dilution

**Lane 1** : Rat brain tissue lysate

**Lane 2** : Rat cerebellum tissue lysate

**Lane 3** : Rat hippocampus tissue lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 52 kDa

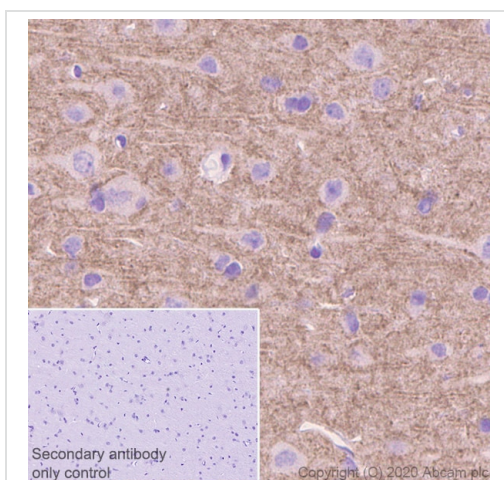
**Observed band size:** 51 kDa

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

This blot was developed using a higher sensitivity ECL substrate.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 15542076, 19428632).

Exposure time: 3 minutes.



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

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### 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-GABA A Receptor alpha 1 antibody

[EPR23539-255] (ab252430)

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

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