

Product datasheet

Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] ab151573

Recombinant RabMAb

[1 References](#) [11 Images](#)

Overview

Product name	Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)]
Description	Rabbit monoclonal [EPR5401(2)] to GABA A Receptor alpha 1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human GABA A Receptor alpha 1 aa 1-100. The exact sequence is proprietary.
Positive control	WB: Human fetal brain, Human lung and Human cerebellum lysates; Human brain prepared in 1%SDS Hot lysis method. IHC-P: Human brain, colon, kidney, Ovarian carcinoma, spleen, cerebrum and glioma tissues.
General notes	<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> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</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	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5401(2)
Isotype	IgG

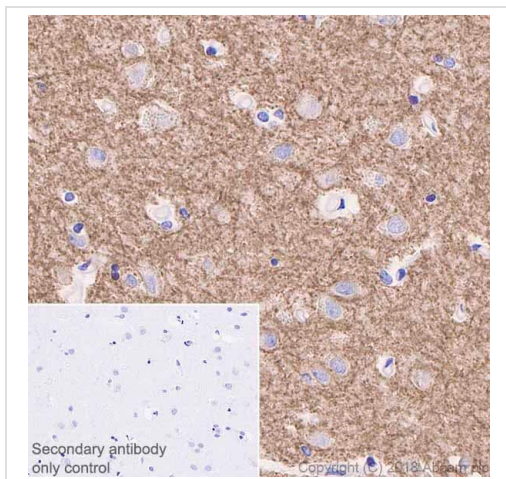
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab151573 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		1/1000 - 1/10000. Detects a band of approximately 52 kDa (predicted molecular weight: 52 kDa). We recommend to try 1% SDS Hot lysis prepare method to get desired WB results. For Lysate preparation protocol, please refer to the protocol book in the protocol section and/or here (downloadable copy) .
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. For unpurified use 1/50 - 1/100 See IHC antigen retrieval protocols .

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human cerebrum tissue sections labeling GABA A Receptor alpha 1 with Purified ab151573 at 1:1000 dilution (0.7 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0)ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody.Negative control:PBS instead of the primary antibody.Hematoxylinwas used as a counterstain



Western blot - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

All lanes : Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573) at 1/1000 dilution

Lane 1 : Human brain prepared in RIPA lysis method

Lane 2 : Human brain prepared in 1%SDS Hot lysis method

Lysates/proteins at 15 µg per lane.

Secondary

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

Developed using the ECL technique.

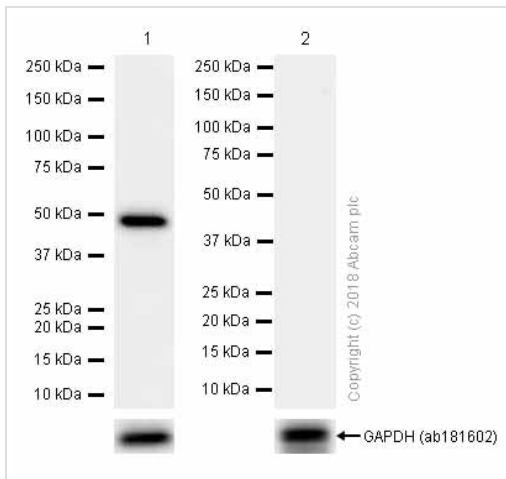
Predicted band size: 52 kDa

Observed band size: 52 kDa

Exposure time: 40 seconds

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

We recommend to use 1%SDS Hot lysis prepare method to get desired Western Blot results.



Western blot - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

All lanes : Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573) at 0.7 µg/ml (purified)

Lane 1 : Human brain lysates

Lane 2 : Human lung lysates - negative control

Lysates/proteins at 15 µg per lane.

Secondary

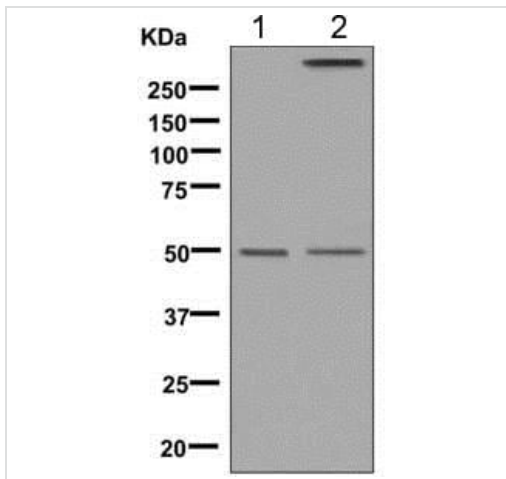
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 52 kDa

Blocking and diluting buffer: 5% NFDM/TBST.

Please note: Lysates prepared in 1%SDS Hot lysis method.

According to the paper (PMID: 29467616), brain is positive and lung is negative tissue.



Western blot - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

All lanes : Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal brain lysate

Lane 2 : Human cerebellum lysate

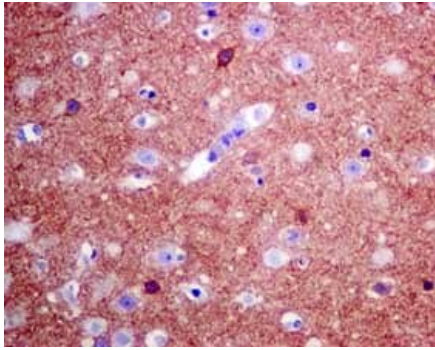
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat anti-rabbit HRP at 1/2000 dilution

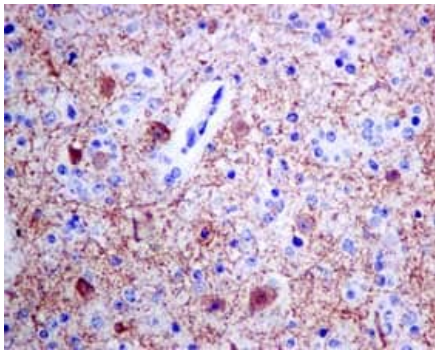
Predicted band size: 52 kDa

Please note: Lysates prepared in 1%SDS Hot lysis method.



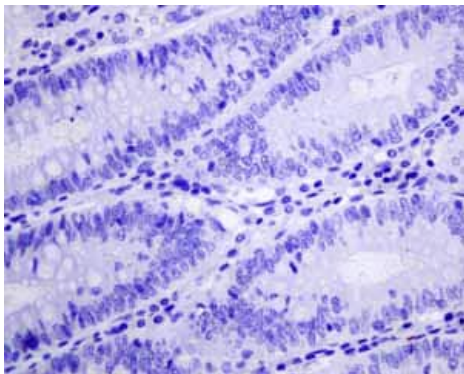
Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling GABA A Receptor alpha 1 with unpurified ab151573 at 1/50 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)



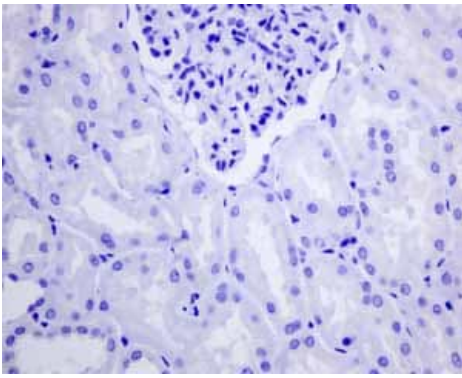
Immunohistochemical analysis of paraffin-embedded Human glioma tissue labeling GABA A Receptor alpha 1 with unpurified ab151573 at 1/50 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)



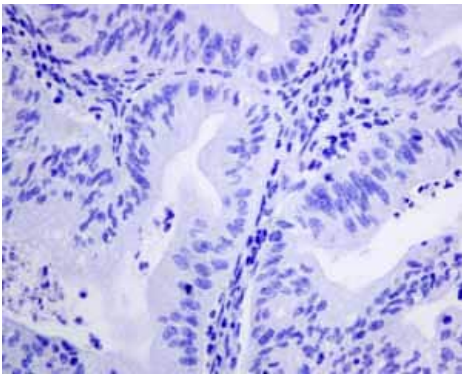
Immunohistochemical analysis of paraffin embedded normal Human colon tissue using unpurified ab151573 showing -ve staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)



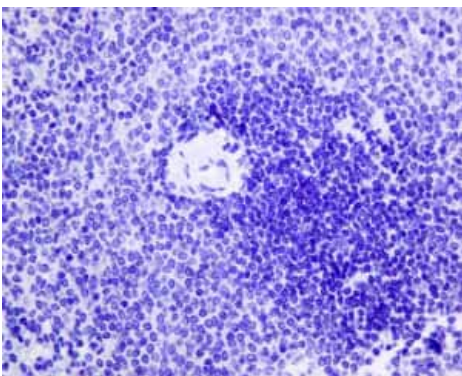
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

Immunohistochemical analysis of paraffin embedded normal Human kidney tissue using unpurified ab151573 showing -ve staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

Immunohistochemical analysis of paraffin embedded Human Ovarian carcinoma tissue using unpurified ab151573 showing -ve staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABA A Receptor alpha 1 antibody [EPR5401(2)] (ab151573)

Immunohistochemical analysis of paraffin embedded normal Human spleen tissue using unpurified ab151573 showing -ve staining.

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
[EPR5401(2)] (ab151573)

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