abcam

Product datasheet

Anti-GABRD antibody [EPR25324-253] ab300348

Recombinant RabMAb

12 Images

Overview

Product name	Anti-GABRD antibody [EPR25324-253]
Description	Rabbit monoclonal [EPR25324-253] to GABRD
Host species	Rabbit
Tested applications	**Suitable for:** IHC-Fr, IP, WB, IHC-P **Unsuitable for:** Flow Cyt or ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat **Does not react with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Tissue lysates: Mouse cerebral cortex, and cerebellum; Rat cerebellum. IHC-P: Mouse cerebellum and thalamus. Rat brain, cerebellum and thalamus. IHC-Fr.: Mouse and rat cerebellum. IP: Mouse and rat cerebellum.
General notes	ab300348 does not react in immunocytochemistry and intracellular flow cytometry in human and mous species. Additionally, it does not react in Western Blot and immunohistochemistry in human. **Target Notes:** Gamma-aminobutyric acid receptor subunit delta is specifically expressed in the brain, and highly expressed in the striatum, thalamus and cerebellum, other brain regions are low or not expressed. Subcellular location: cytoplasm and membrane. 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: 7.20
Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal

Clone number EPR25324-253

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab300348 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-Fr		1/500.
IP		1/30.
WB		1/1000.
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

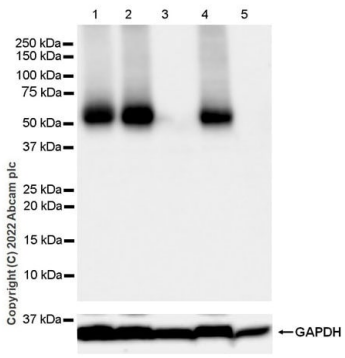
Function GABA, the major inhibitory neurotransmitter in the vertebrate brain, mediates neuronal inhibition by binding to the GABA/benzodiazepine receptor and opening an integral chloride channel.

Involvement in disease Defects in GABRD are the cause of susceptibility to generalized epilepsy with febrile seizures plus type 5 (GEFS+5) [MIM:604233]. Generalized epilepsy with febrile seizures-plus refers to a rare familial condition with incomplete penetrance and large intrafamilial variability. Patients display febrile seizures persisting sometimes beyond the age of 6 years and/or a variety of afebrile seizure types. GEFS+ is a disease combining febrile seizures, generalized seizures often precipitated by fever at age 6 years or more, and partial seizures, with a variable degree of severity.
Defects in GABRD are the cause of susceptibility to idiopathic generalized epilepsy type 10 (IGE10) [MIM:613060]. A disorder characterized by recurring generalized seizures in the absence of detectable brain lesions and/or metabolic abnormalities. Generalized seizures arise diffusely and simultaneously from both hemispheres of the brain.
Defects in GABRD are the cause of susceptibility to juvenile myoclonic epilepsy type 7 (EJM7) [MIM:613060]. 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. GABRD sub-subfamily.
Cellular localization	Cell junction > synapse > postsynaptic cell membrane. Cell membrane.

Images



Western blot - Anti-GABRD antibody [EPR25324-253] (AB300348)

All lanes : Anti-GABRD antibody [EPR25324-253] (ab300348) at 1/1000 dilution

Lane 1 : Mouse cerebral cortex tissue lysate
Lane 2 : Mouse cerebellum tissue lysate
Lane 3 : Mouse kidney tissue lysate
Lane 4 : Rat cerebellum tissue lysate
Lane 5 : Rat kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/20000 dilution

Observed band size: 62 kDa

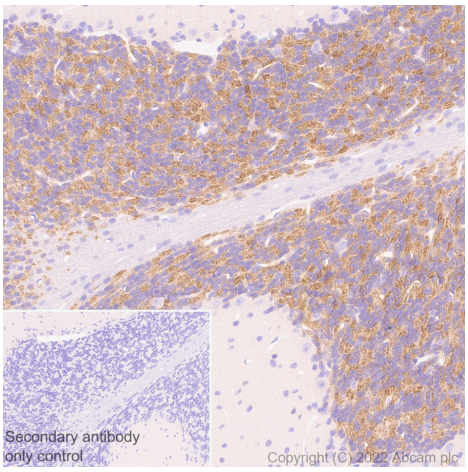
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 18408071).

Negative control: kidney (PMID: 12119096)

Application Note: Samples are non-boiled as boiling may cause protein aggregation.

Exposure time: 5.5 seconds

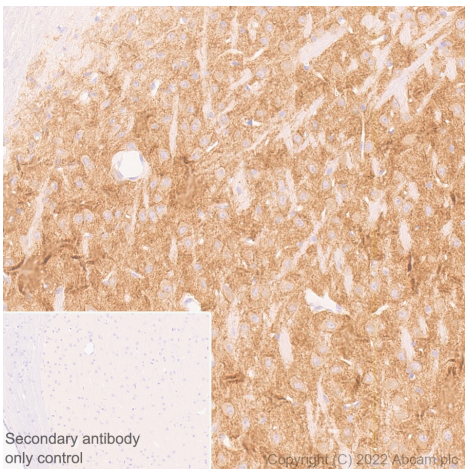


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in mouse cerebellum (PMID: 23337532). The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

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

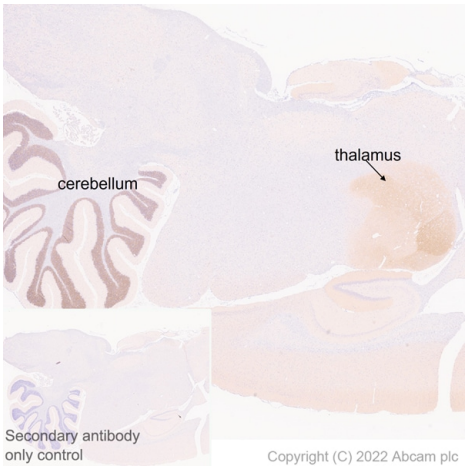


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded mouse thalamus tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in mouse thalamus (PMID: 23337532). The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

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

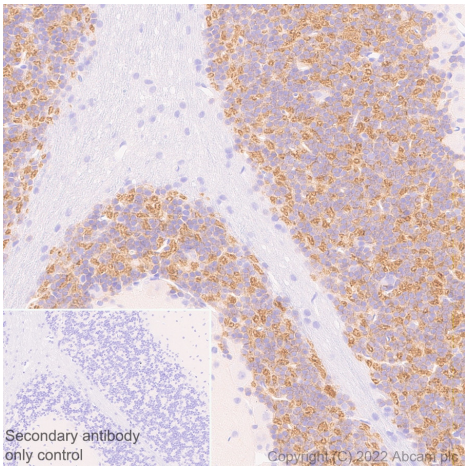


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded rat brain tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in rat brain. The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

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

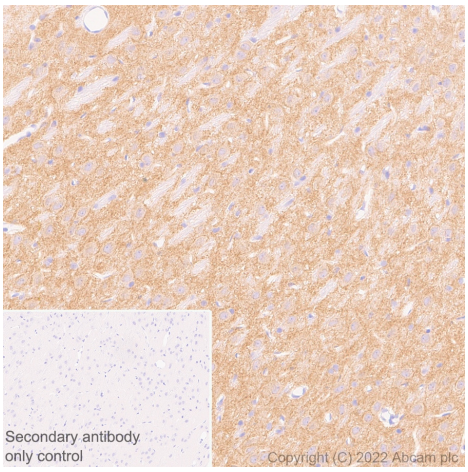


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in rat cerebellum. The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

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

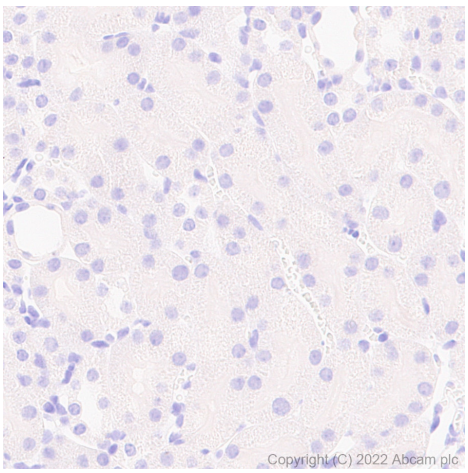


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded rat thalamus tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). Positive staining in rat thalamus. The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: PBS was used instead of primary antibody, followed by a ready to use secondary antibody LeicaDS9800 (Bond™ Polymer Refine Detection kit).

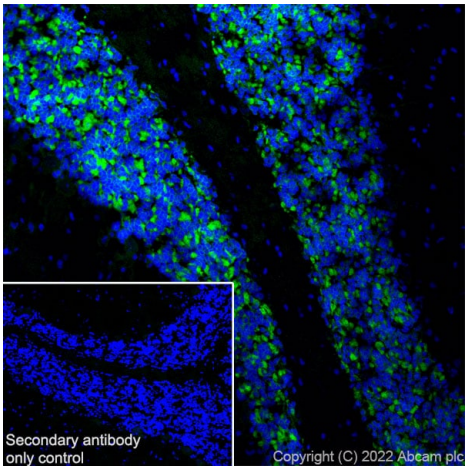
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 dilution (0.956 µg/mL) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection kit). **Negative control**: no staining in mouse kidney. The section was incubated with ab300348 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

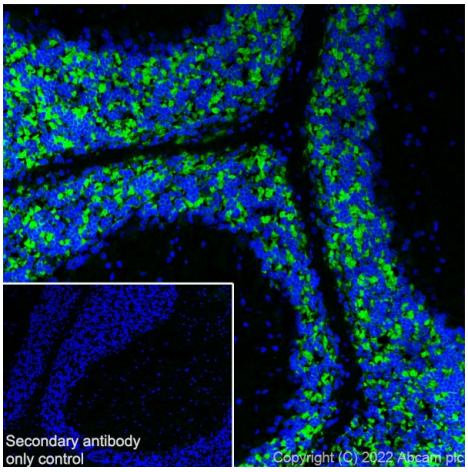
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Frozen sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat cerebellum (fresh) tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 (0.956 µg/ml) dilution 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 cerebellum is observed. The nuclear counterstain was DAPI (Blue).

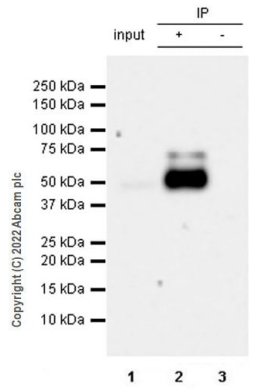
Secondary antibody control: PBS was used instead of primary antibody, followed by preadsorbed secondary antibody **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (2 µg/ml).



Immunohistochemistry (Frozen sections) - Anti-GABRD antibody [EPR25324-253] (AB300348)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cerebellum (fresh) tissue labeling Gamma-aminobutyric acid receptor subunit delta with ab300348 at 1/500 (0.956 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution (Green). Positive staining on mouse cerebellum is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbedat 1/1000 (2 ug/ml) dilution.



Immunoprecipitation - Anti-GABRD antibody [EPR25324-253] (AB300348)

Gamma-aminobutyric acid receptor subunit delta was immunoprecipitated from 0.35 mg mouse cerebellum tissue lysate 10 µg with ab300348 at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab300348 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: Mouse cerebellum tissue lysate 10 µg (Input)

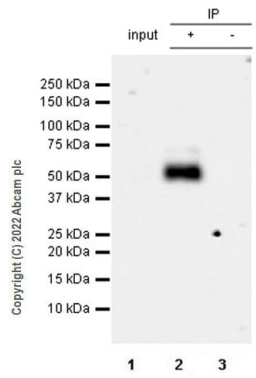
Lane 2: ab300348 IP in mouse cerebellum tissue lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab300348 in mouse cerebellum tissue lysate

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

Observed MW (kDa): 62

Exposure time: 3 minutes.



Immunoprecipitation - Anti-GABRD antibody [EPR25324-253] (AB300348)

Gamma-aminobutyric acid receptor subunit delta was immunoprecipitated from 0.35 mg rat cerebellum tissue lysate 10 µg with ab300348 at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab300348 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: Rat cerebellum tissue lysate 10 µg (Input)

Lane 2: ab300348 IP in Rat cerebellum tissue lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab300348 in rat cerebellum tissue lysate

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

Exposure time: 41 seconds.

Observed MW (kDa): 62.

Anti-GABRD antibody [EPR25324-253] (AB300348)

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