

## Product datasheet

### Anti-GAD65 antibody [EPR22952-70] $\alpha$ b239372

Recombinant RabMAb

★★★★★ [2 Abreviews](#) [2 References](#) [9 Images](#)

#### Overview

<b>Product name</b>	Anti-GAD65 antibody [EPR22952-70]
<b>Description</b>	Rabbit monoclonal [EPR22952-70] to GAD65
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), IP, IHC-P, WB, IHC-Fr, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Mouse brain and cerebellum tissue lysates. Rat brain and cerebellum tissue lysates IHC-P: Rat pancreas and Mouse cerebrum tissues. IHC-Fr: Rat pancreas and Mouse cerebrum tissues. Flow Cyt (intra): Beta-TC-6IP: Mouse brain lysate
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <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> <p>For more information <a href="#">see here</a>.</p> <p>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>.</p>

#### 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>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22952-70

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab239372 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
Flow Cyt (Intra)		1/60.
IP		1/30.
IHC-P	★★★★★ (2)	1/2000.
WB		1/5000. Predicted molecular weight: 65 kDa.
IHC-Fr		1/100.
ICC/IF		1/50.

## Target

### Function

Catalyzes the production of GABA.

### Sequence similarities

Belongs to the group II decarboxylase family.

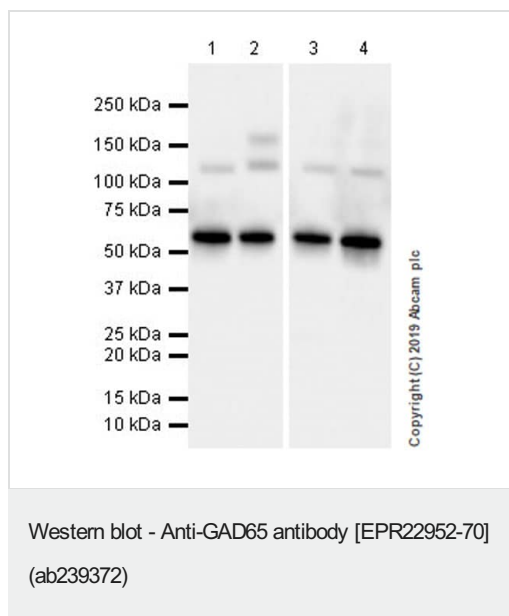
### Post-translational modifications

Phosphorylated; which does not affect kinetic parameters or subcellular location.  
Palmitoylated; which is required for presynaptic clustering.

### Cellular localization

Cytoplasm > cytosol. Cytoplasmic vesicle. Cell junction > synapse > presynaptic cell membrane.  
Golgi apparatus membrane. Associated to cytoplasmic vesicles. In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters.

## Images



**All lanes :** Anti-GAD65 antibody [EPR22952-70] (ab239372) at 1/5000 dilution

**Lane 1 :** Mouse brain tissue lysate

**Lane 2 :** Mouse cerebellum tissue lysate

**Lane 3 :** Rat brain tissue lysate

**Lane 4 :** Rat cerebellum tissue lysate

Lysates/proteins at 20 µg per lane.

## Secondary

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

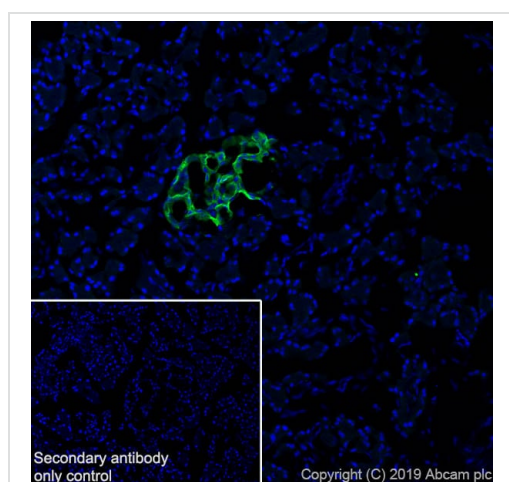
**Predicted band size:** 65 kDa

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

Exposure time: 8 seconds.

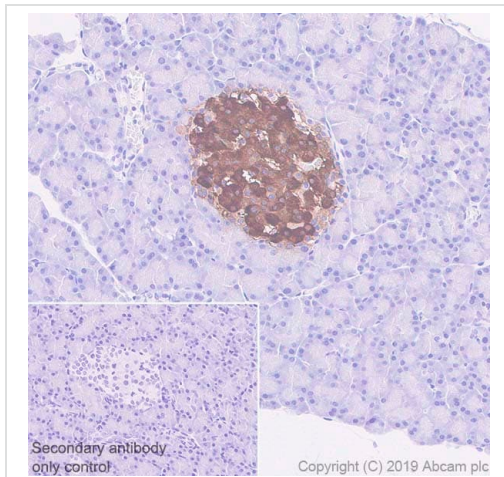
Bands above 100kDa are multimers of GAD65.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 10601283, 21734072).



Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized frozen Rat pancreas tissue labeling GAD65 with ab239372 at 1/100 dilution (Green) followed by [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution. The nuclear counterstain was DAPI (Blue).

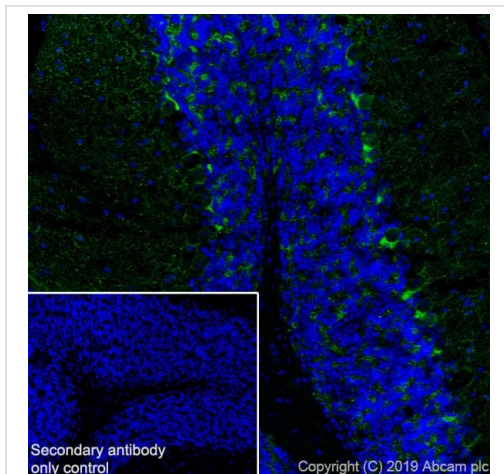
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody was [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GAD65 antibody [EPR22952-70] (ab239372)

Immunohistochemical analysis of paraffin-embedded Rat pancreas tissue labeling GAD65 with ab239372 at 1/2000 (0.323 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Cytoplasmic staining on islet of rat pancreas. The section was incubated with ab239372 for 15 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 solution2) for 20 mins.

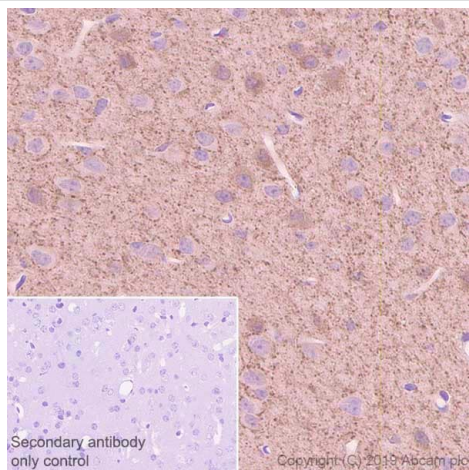
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).



Immunohistochemistry (Frozen sections) - Anti-GAD65 antibody [EPR22952-70] (ab239372)

Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized frozen Mouse cerebellum tissue labeling GAD65 with ab239372 at 1/100 dilution (Green) followed by [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution. The nuclear counterstain was DAPI (Blue). Positive staining on mouse cerebellum is observed.

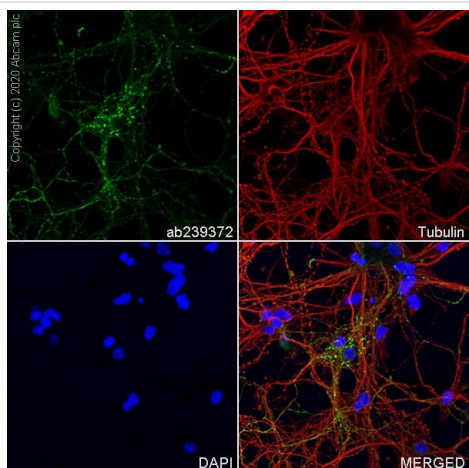
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody was [ab150077](#) AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GAD65 antibody [EPR22952-70] (ab239372)

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labelling GAD65 with ab239372 at 1/2000 (0.323 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on mouse cerebrum is observed. The section was incubated with ab239372 for 15 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 solution2) for 20 mins.

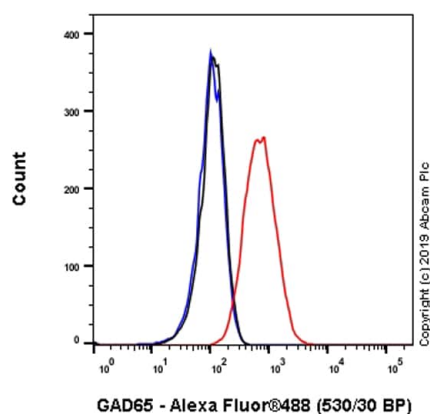
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).



Immunocytochemistry/ Immunofluorescence - Anti-GAD65 antibody [EPR22952-70] (ab239372)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neuron cells labelling GAD65 with ab239372 at 1/100 dilution, followed by [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in mouse primary neurons is observed. [ab195889](#) Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/1000 dilution (Red). The Nuclear counterstain was DAPI (Blue). Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection.

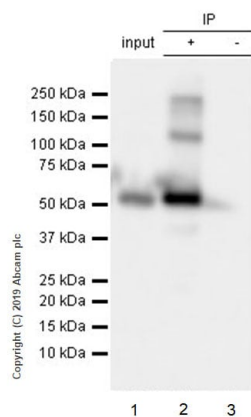
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-GAD65 antibody [EPR22952-70] (ab239372)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Beta-TC-6 (Mouse pancreas insulinoma beta cell) cells labelling GAD65 with ab239372 at 1/60 dilution (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.





Immunoprecipitation - Anti-GAD65 antibody  
[EPR22952-70] (ab239372)

GAD65 was immunoprecipitated from 0.35 mg Mouse brain lysate with ab239372 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab239372 at 1/1000 dilution (0.45 µg/ml). VeriBlot for IP Detection Reagent (HRP)([ab131366](#)) was used at 1/5000 dilution.

**Lane 1:** Mouse brain lysate 10 µg

**Lane 2:** ab239372 IP in Mouse brain lysate

**Lane 3:** Rabbit monoclonal IgG ([ab172730](#)) instead of ab239372 in Mouse brain lysate.

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

**Exposure time:** 3 seconds

Bands above 100kDa are multimers of GAD65 (PMID: 10601283).

### 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-GAD65 antibody [EPR22952-70] (ab239372)

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

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- 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

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