

## Product datasheet

### Anti-BACE2 antibody [EPR23339-221] ab270458

Recombinant RabMAb

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

#### Overview

<b>Product name</b>	Anti-BACE2 antibody [EPR23339-221]
<b>Description</b>	Rabbit monoclonal [EPR23339-221] to BACE2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, WB, ICC/IF, IP, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HeLa, A549, C6, Beta-TC-6 and Neuro 2a cell lysate. IHC-P: Mouse and rat pancreas tissue. IHC-fr: Mouse pancreas. ICC/IF: Beta-TC-6 cells. IP: Neuro-2a whole cell 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: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR23339-221
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab270458 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		1/100.
WB	★ ★ ★ ★ ★ (1)	1/1000. Predicted molecular weight: 56 kDa.
ICC/IF		1/50. 100% methanol fixation is recommended.
IP		1/30.
IHC-P	★ ★ ★ ★ ★ (1)	1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

### Function

Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves APP, between residues 690 and 691, leading to the generation and extracellular release of beta-cleaved soluble APP, and a corresponding cell-associated C-terminal fragment which is later released by gamma-secretase. It has also been shown that it can cleave APP between residues 671 and 672.

### Tissue specificity

Brain. Present in neurons within the hippocampus, frontal cortex and temporal cortex (at protein level). Expressed at low levels in most peripheral tissues and at higher levels in colon, kidney, pancreas, placenta, prostate, stomach and trachea. Expressed at low levels in the brain. Found in spinal cord, medulla oblongata, substantia nigra and locus coeruleus. Expressed in the ductal epithelium of both normal and malignant prostate.

### Sequence similarities

Belongs to the peptidase A1 family.

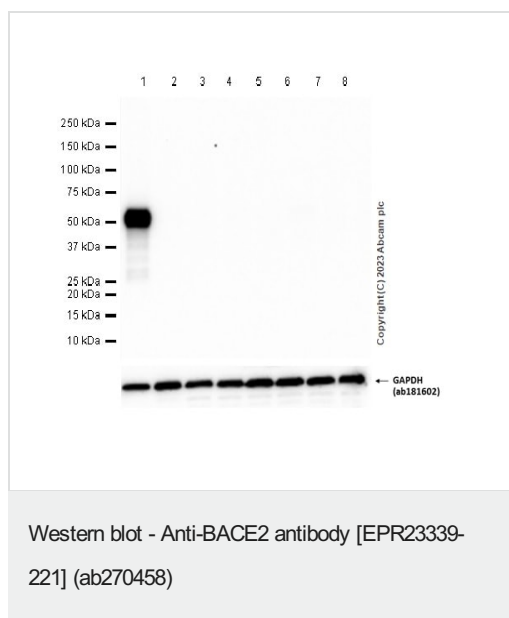
### Post-translational modifications

Undergoes autoproteolytic cleavage.  
Glycosylated.

### Cellular localization

Membrane. Golgi apparatus. Endoplasmic reticulum. Endosome. Cell surface.

## Images



**All lanes** : Anti-BACE2 antibody [EPR23339-221] (ab270458) at 1/1000 dilution

**Lane 1** : Beta-TC-6 (Mouse pancreas insulinoma beta cell) whole cell lysate

**Lane 2** : Mouse brain tissue lysate

**Lane 3** : Mouse hippocampus tissue

**Lane 4** : Mouse cerebellum tissue

**Lane 5** : Mouse cerebral cortex tissue

**Lane 6** : Mouse spinal cord tissue

**Lane 7** : Mouse midbrain tissue lysate

**Lane 8** : Mouse forebrain tissue lysate

Lysates/proteins at 20 µg per lane.

### Secondary

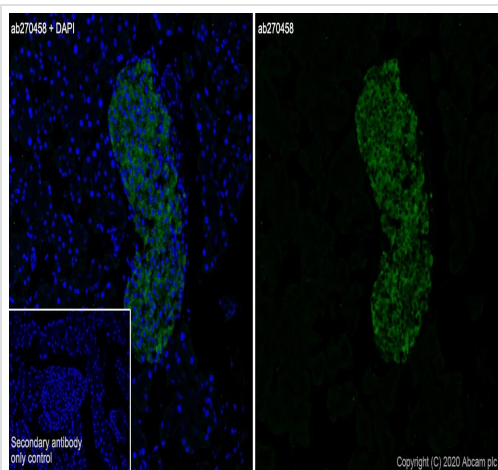
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 56 kDa

**Observed band size:** 56 kDa

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

Brain has very low level of BACE2 [PMID: 10749877, PMID: 30626751].

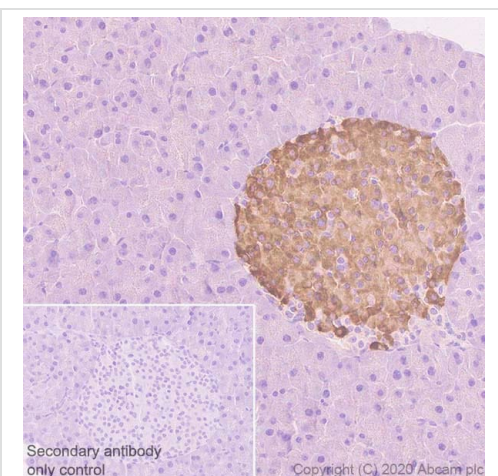


Immunohistochemistry (Frozen sections) - Anti-BACE2 antibody [EPR23339-221] (ab270458)

Immunohistochemical analysis of 4% PFA fixed 0.2% Triton X-100 permeabilized frozen mouse pancreas tissue labeling BACE2 with ab270458 at 1/100 dilution followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 µg/ml) dilution. The nuclear counterstain was DAPI (Blue).

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

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.

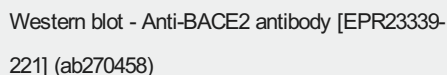


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BACE2 antibody [EPR23339-221] (ab270458)

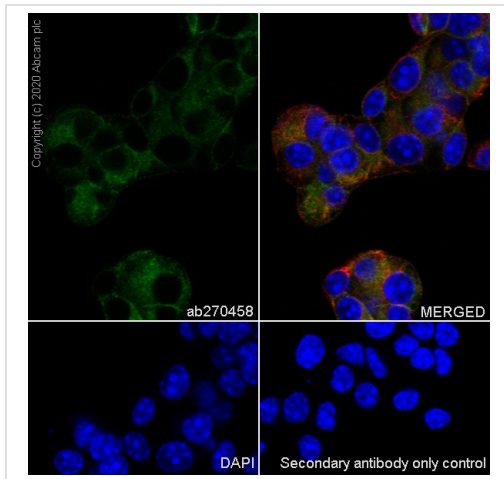
Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue labeling BACE2 with ab270458 at 1/100 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on mouse pancreatic islet (PMID: 21907142). The section was incubated with ab270458 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® 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.



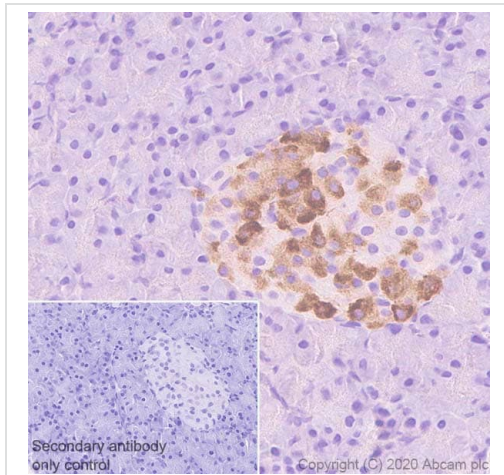
Exposure time: 3 mins.



Immunocytochemistry/ Immunofluorescence - Anti-BACE2 antibody [EPR23339-221] (ab270458)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized Beta-TC-6 cells labeling BACE2 with ab270458 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic and membranous staining in Beta-TC-6 cell line. 100% methanol fixation is recommended. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

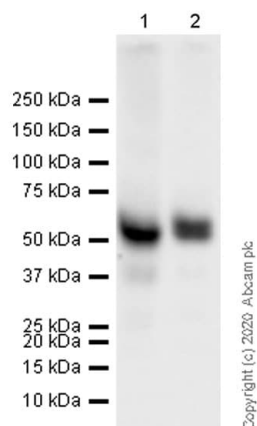


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BACE2 antibody [EPR23339-221] (ab270458)

Immunohistochemical analysis of paraffin-embedded rat pancreas tissue labeling BACE2 with ab270458 at 1/100 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining on rat pancreatic islet (PMID: 21907142). The section was incubated with ab270458 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® 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-BACE2 antibody [EPR23339-221] (ab270458)

**All lanes :** Anti-BACE2 antibody [EPR23339-221] (ab270458) at 1/1000 dilution

**Lane 1 :** Beta-TC-6 (mouse pancreas insulinoma beta cell), whole cell lysate

**Lane 2 :** Neuro-2a (mouse neuroblastoma neuroblast), whole cell lysate

Lysates/proteins at 40 µg per lane.

### Secondary

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

**Predicted band size:** 56 kDa

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

Exposure time: 10 secs.

### 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-BACE2 antibody [EPR23339-221] (ab270458)

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

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