

Product datasheet

Anti-BACE1 antibody ab2077

★★★★★ 4 Abreviews 45 References 5 Images

Overview

Product name	Anti-BACE1 antibody
Description	Rabbit polyclonal to BACE1
Host species	Rabbit
Tested applications	Suitable for: ICC, WB, ICC/IF, IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide, corresponding to amino acids 485-501 of Human BACE. The peptide sequence differs from those of mouse and rat BACE by one amino acid (1).
Positive control	IHC-P: Mouse brain tissue WB: Human brain tissue lysate, 3T3 lysate. ICC/IF: 3T3 cells
General notes	Beta-site APP Cleaving Enzyme.

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. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.02% Sodium azide
Purity	Ion Exchange Chromatography
Purification notes	BACE Antibody is Ion exchange chromatography purified.
Primary antibody notes	Beta-site APP Cleaving Enzyme.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab2077** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

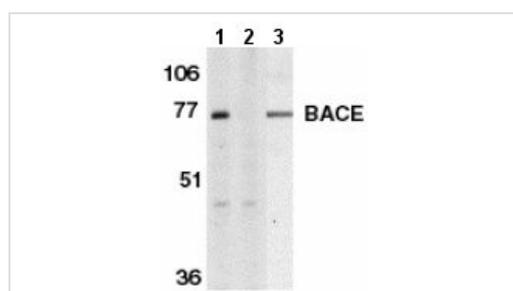
Application	Abreviews	Notes
ICC		Use a concentration of 10 µg/ml.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 70 kDa. Can be blocked with BACE1 peptide (ab7883) . We recommend overnight incubation at 4C and using 5% skim milk to block.
ICC/IF	★★★★☆	Use at an assay dependent concentration.
IHC-P		Use a concentration of 2.5 µg/ml.

Target

Function	Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves at the N-terminus of the A-beta peptide sequence, between residues 671 and 672 of APP, leads 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.
Tissue specificity	Expressed at high levels in the brain and pancreas. In the brain, expression is highest in the substantia nigra, locus coeruleus and medulla oblongata.
Sequence similarities	Belongs to the peptidase A1 family.
Domain	The transmembrane domain is necessary for its activity. It determines its late Golgi localization and access to its substrate, APP.
Post-translational modifications	Glycosylated.
Cellular localization	Membrane. Golgi apparatus > trans-Golgi network. Endoplasmic reticulum. Endosome. Cell surface. Predominantly localized to the later Golgi/trans-Golgi network (TGN) and minimally detectable in the early Golgi compartments. A small portion is also found in the endoplasmic reticulum, endosomes and on the cell surface.

Images



Western blot - Anti-BACE1 antibody (ab2077)

All lanes : Anti-BACE1 antibody (ab2077) at 1 µg/ml

Lane 1 : Human brain tissue lysate with absence of blocking peptide

Lane 2 : Human brain tissue lysate with BACE1 peptide ([ab7883](#))

Lane 3 : Mouse 3T3/NIH cell lysate

Lysates/proteins at 15 µg per lane.

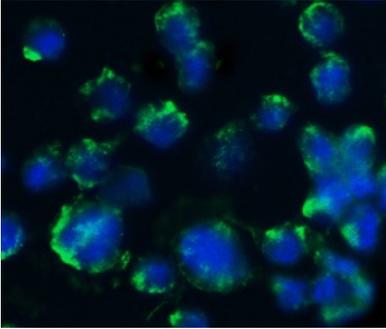
Secondary

All lanes : Goat anti-rabbit IgG HRP conjugate at 1/10000 dilution

Observed band size: 70 kDa

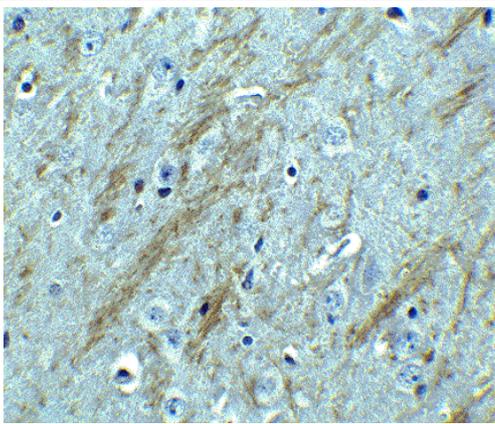
[why is the actual band size different from the predicted?](#)

Incubate the antibody for 1 hour at room temperature in 5% NFDM/TBST.



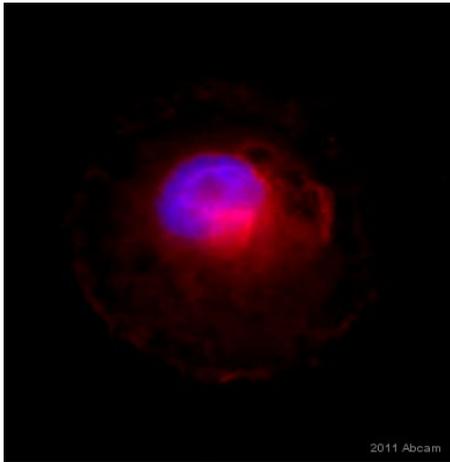
Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab2077)

Immunofluorescent analysis of 4% paraformaldehyde-fixed mouse 3T3/NIH cells labeling BACE with ab2077 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue). Image showing both membrane and cytosol staining on 3T3/NIH cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BACE1 antibody (ab2077)

Immunohistochemical analysis of paraffin-embedded mouse brain tissue using ab2077 at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4 °C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.

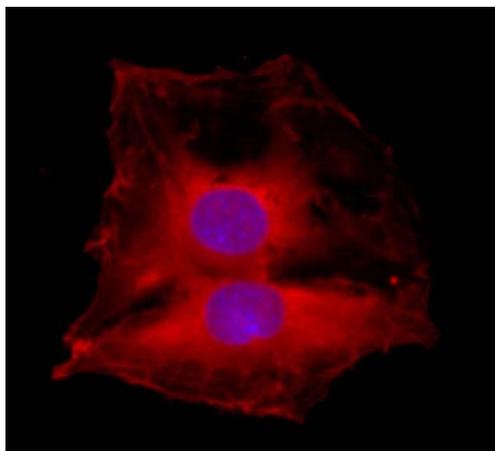


Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab2077)

Image courtesy of an anonymous Abreview.

ab2077 staining BACE1 in human glioblastoma cell line D54MG by Immunocytochemistry/ Immunofluorescence.

Cells were fixed in paraformaldehyde, permeabilized with 0.1% Triton X-100, blocked with 0.5% BSA for 20 minutes at room temperature, then incubated with ab2077 at a 1/50 dilution for 16 hours at 4°C. The secondary used was a TRITC conjugated goat anti-rabbit polyclonal, used at a 1/400 dilution. Nuclei are counterstained with DAPI.



Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab2077)

Image courtesy of an anonymous Abreview.

ab2077 staining BACE1 in rat glioma cell line C6 by Immunocytochemistry/ Immunofluorescence.

Cells were fixed in paraformaldehyde, permeabilized using 0.1% Triton X-100, blocked with 0.5% BSA for 20 minutes at room temperature, then incubated with ab2077 at a 1/50 dilution for 16 hours at 4°C. The secondary used was a TRITC conjugated goat anti-rabbit polyclonal, used at a 1/400 dilution. Nuclei are counterstained with DAPI.

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