


Product datasheet

Anti-BACE1 antibody ab10716

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Overview

Product name	Anti-BACE1 antibody
Description	Rabbit polyclonal to BACE1
Host species	Rabbit
Specificity	Detects transfected beta-secretase 1.
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Guinea pig, Cow 
Immunogen	Synthetic peptide corresponding to Human BACE1 aa 485-501 (C terminal). Sequence: CLRQQHDDFADDISLLK (Peptide available as ab7883) Run BLAST with Run BLAST with
Positive control	WB: U87-MG, HeLa and Mouse brain cell lysate. ICC/IF: SH-SY5Y cells, Neuro-2a cells, HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.1% BSA
Purity	Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab10716 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. Predicted molecular weight: 56 kDa.
ICC/IF		1/20 - 1/200.

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.

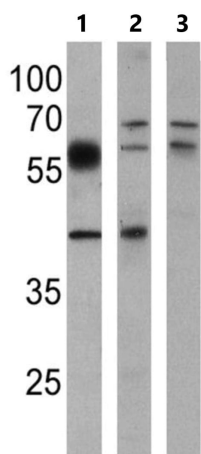
Sequence similarities Belongs to the peptidase A1 family.

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 (ab10716)

All lanes : Anti-BACE1 antibody (ab10716) at 1/1000 dilution

Lane 1 : U87-MG cell lysate

Lane 2 : HeLa cell lysate

Lane 3 : Mouse brain cell lysate

Lysates/proteins at 25 µg per lane.

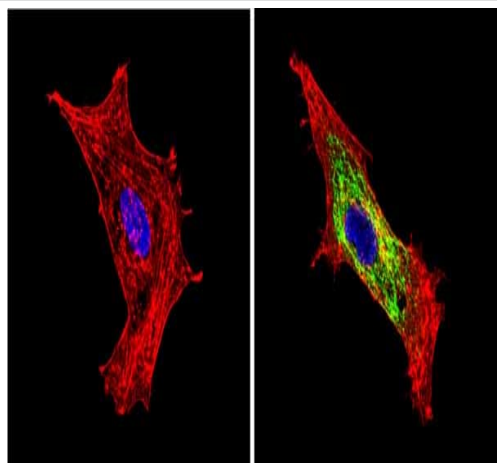
Secondary

All lanes : HRP-conjugated secondary antibody

Predicted band size: 56 kDa

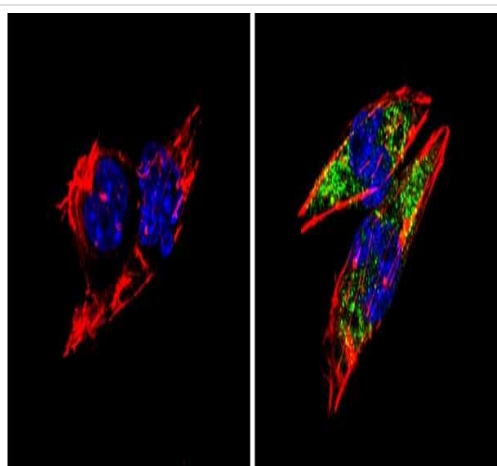
Observed band size: 42,56,70 kDa

Western blot analysis of BACE1 was performed by loading Samples onto an SDS polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked at 4°C overnight. The membrane was probed with primary antibody overnight at 4°C, washed in TBST, and probed with secondary antibody for 1 hour at room temperature in the dark. Chemiluminescent detection was performed using Pierce ECL Plus Western Blotting Substrate.



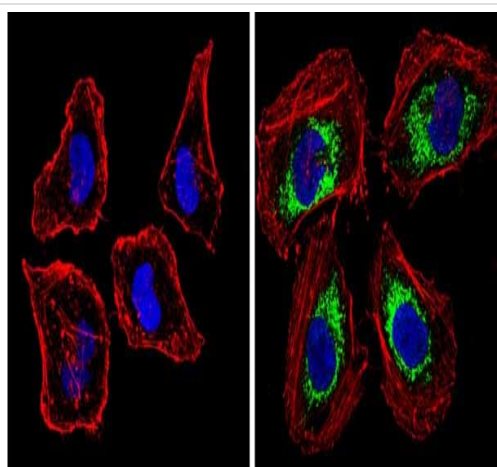
Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab10716)

Immunocytochemistry/Immunofluorescent analysis of BACE1 (green) showing staining in the Golgi apparatus of SH-SY5Y cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab10716 in 3% BSA-PBS at a dilution of 1/100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab10716)

Immunocytochemistry/Immunofluorescent analysis of BACE1 (green) showing staining in the Golgi apparatus of Neuro-2a cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab10716 in 3% BSA-PBS at a dilution of 1/100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



Immunocytochemistry/ Immunofluorescence - Anti-BACE1 antibody (ab10716)

Immunocytochemistry/Immunofluorescent analysis of BACE1 (green) showing staining in the Golgi apparatus of HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with ab10716 in 3% BSA-PBS at a dilution of 1/100 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.

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