

Product datasheet

Anti-BACE1 antibody [EPR3956] ab108394

KO VALIDATED Recombinant RabMAb

★★★★★ 2 Abreviews 44 References 6 Images

Overview

Product name	Anti-BACE1 antibody [EPR3956]
Description	Rabbit monoclonal [EPR3956] to BACE1
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: Flow Cyt, ICC/IF or IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: SH-SY5Y cell lysate and human fetal, mouse and rat brain tissue lysates. IP: Human fetal brain tissue lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</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. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 40% Glycerol, PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3956
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab108394 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

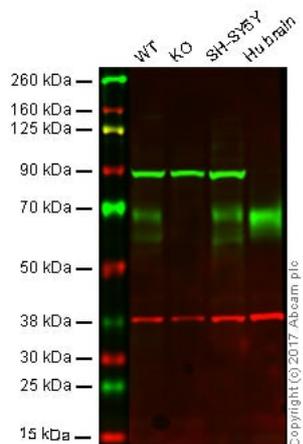
Application	Abreviews	Notes
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 56 kDa.
IP		1/10 - 1/100.

Application notes Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

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 [EPR3956] (ab108394)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)

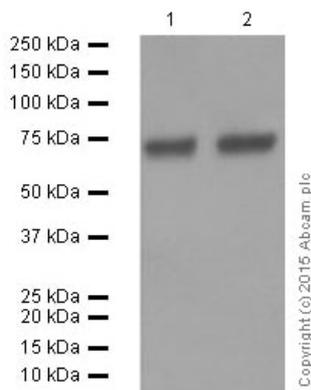
Lane 2: BACE1 knockout HAP1 whole cell lysate (20 µg)

Lane 3: SHSY5Y whole cell lysate (20 µg)

Lane 4: Human brain whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab108394 observed at 70 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab108394 was shown to recognize BACE1 in wild type cells as signal was lost at the expected MW in BACE1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and BACE1 knockout samples were subjected to SDS-PAGE. Ab108394 and ab9484 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-BACE1 antibody [EPR3956] (ab108394)

All lanes : Anti-BACE1 antibody [EPR3956] (ab108394) at 1/10000 dilution (purified)

Lane 1 : Mouse brain tissue lysate

Lane 2 : Rat brain tissue lysate

Lysates/proteins at 20 µg per lane.

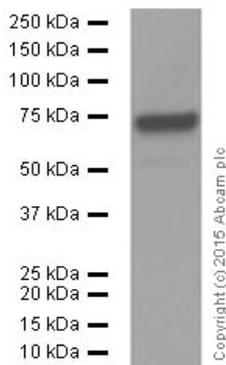
Secondary

All lanes : Peroxidase-conjugated goat anti-rabbit IgG, (H+L) at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 70 kDa

Blocking and dilution buffer: 5% NFDM/TBST.



Western blot - Anti-BACE1 antibody [EPR3956] (ab108394)

Anti-BACE1 antibody [EPR3956] (ab108394) at 1/10000 dilution (purified) + Human fetal brain tissue lysate at 20 μ g

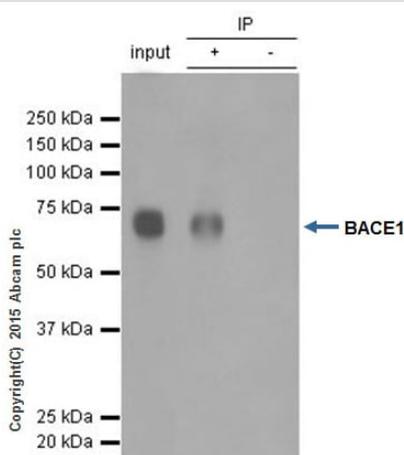
Secondary

Peroxidase-conjugated goat anti-rabbit IgG, (H+L) at 1/1000 dilution

Predicted band size: 56 kDa

Observed band size: 70 kDa

Blocking and dilution buffer: 5% NFDm/TBST.



Immunoprecipitation - Anti-BACE1 antibody [EPR3956] (ab108394)

ab108394 (purified) at 1/40 immunoprecipitating BACE1 in human fetal brain whole tissue lysate.

Lane 1 (input): human fetal brain whole tissue lysate (10 μ g)

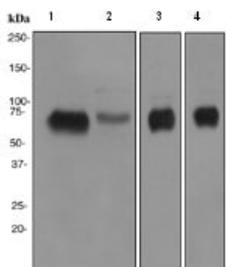
Lane 2 (+): ab108394 + human fetal brain whole tissue lysate (10 μ g).

Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab108394 in human fetal brain whole tissue lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1500 dilution.

Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.



Western blot - Anti-BACE1 antibody [EPR3956] (ab108394)

All lanes : Anti-BACE1 antibody [EPR3956] (ab108394) at 1/1000 dilution (unpurified)

Lane 1 : Fetal brain lysate

Lane 2 : SH-SY5Y lysate

Lane 3 : Mouse brain lysate

Lane 4 : Rat brain lysate

Lysates/proteins at 10 μ g per lane.

Predicted band size: 56 kDa

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-BACE1 antibody [EPR3956] (ab108394)

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

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