

BACE1 / BACE Antibody (C-Terminus)

Rabbit Polyclonal Antibody Catalog # ALS10993

Specification

BACE1 / BACE Antibody (C-Terminus) - Product Information

Application IHC
Primary Accession P56817

Reactivity Human, Monkey

Host Rabbit
Clonality Polyclonal
Calculated MW 56kDa KDa

BACE1 / BACE Antibody (C-Terminus) - Additional Information

Gene ID 23621

Other Names

Beta-secretase 1, 3.4.23.46, Aspartyl protease 2, ASP2, Asp 2, Beta-site amyloid precursor protein cleaving enzyme 1, Beta-site APP cleaving enzyme 1, Memapsin-2, Membrane-associated aspartic protease 2, BACE1, BACE, KIAA1149

Target/Specificity

Human BACE1. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except CPD (39%).

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

BACE1 / BACE Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

BACE1 / BACE Antibody (C-Terminus) - Protein Information

Name BACE1 (HGNC:933)

Synonyms BACE, KIAA1149

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 (PubMed:10656250, PubMed:10677483, PubMed:20354142). Cleaves CHL1 (By similarity).



Cellular Location

Cell membrane; Single-pass type I membrane protein Golgi apparatus, trans-Golgi network. Endoplasmic reticulum. Endosome. Cell surface. Cytoplasmic vesicle membrane; Single-pass type I membrane protein. Membrane raft {ECO:0000250|UniProtKB:P56818}. Lysosome. Late endosome. Early endosome. Recycling endosome. Cell projection, axon {ECO:0000250|UniProtKB:P56818}. Cell projection, dendrite {ECO:0000250|UniProtKB:P56818}. Note=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 (PubMed:17425515, PubMed:11466313). Colocalization with APP in early endosomes is due to addition of bisecting N-acetylglucosamine wich blocks targeting to late endosomes and lysosomes (By similarity) Retrogradly transported from endosomal compartments to the trans-Golgi network in a phosphorylation- and GGA1- dependent manner (PubMed:15886016). {ECO:0000250|UniProtKB:P56818, ECO:0000269|PubMed:17425515}

Tissue Location

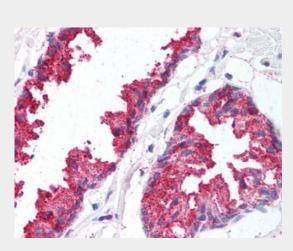
Expressed at high levels in the brain and pancreas. In the brain, expression is highest in the substantia nigra, locus coruleus and medulla oblongata.

BACE1 / BACE Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BACE1 / BACE Antibody (C-Terminus) - Images



Anti-BACE1 antibody ALS10993 IHC of human prostate.

BACE1 / BACE Antibody (C-Terminus) - Background

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cell-associated C-terminal fragment which is later released by gamma-secretase.

BACE1 / BACE Antibody (C-Terminus) - References

Vassar R., et al. Science 286:735-741(1999). Sinha S., et al. Nature 402:537-540(1999). Yan R., et al. Nature 402:533-537(1999). Hussain I., et al. Mol. Cell. Neurosci. 14:419-427(1999). Michel B., et al. Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.