10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1497

Specification

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P56817
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 56 kD a , observed, 70 kDa KDa**
Gene Name	**BACE1**
Aliases	**BACE1; Beta-Secretase 1; BACE; Membrane-Associated Aspartic Protease; Beta-Site APP Cleaving Enzyme 1; Beta-Site APP-Cleaving Enzyme Aspartyl Protease; EC 3.4.23.46; Memapsin-2; Asp 2; ASP2; Beta-Site Amyloid Beta A4 Precursor Protein-Cleaving Enzyme; Beta-Site Amyloid Precursor Protein Cleaving Enzyme 1; Transmembrane Aspartic Proteinase Asp2; Beta-Site APP-Cleaving Enzyme 1; APP Beta-Secretase; EC 3.4.23; KIAA1149; HSPC104**
Immunogen	**A synthesized peptide derived from human BACE1**

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody - 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 (HGNC:933), BACE, KIAA1149

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody - 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:11466313, PubMed:17425515). Colocalization with APP in early endosomes is due to addition of bisecting N-acetylglucosamine which 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:11466313, ECO:0000269|PubMed:15886016, 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.

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Beta-secretase 1 Rabbit Monoclonal Antibody - Images

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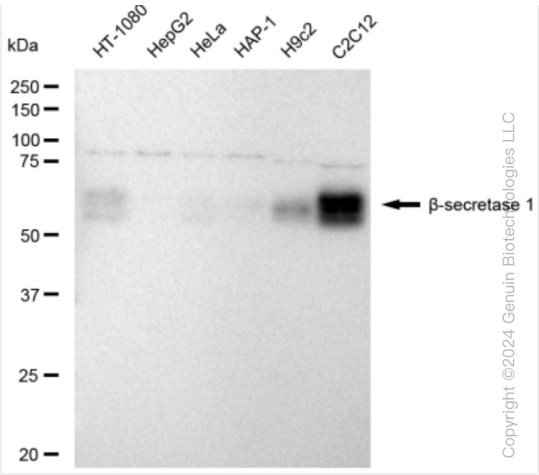
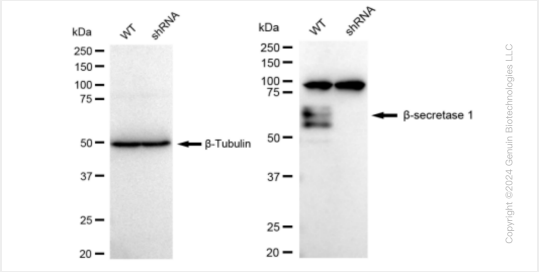
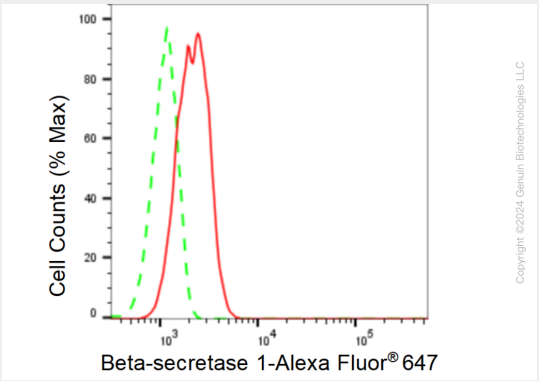


Western blotting analysis using anti-Beta-secretase 1 antibody (Cat#AGI1497). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Beta-secretase 1 antibody (Cat#AGI1497, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Beta-secretase 1 antibody (Cat#AGI1497). Beta-secretase 1 expression in wild type (WT) and Beta-secretase 1 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Beta-secretase 1 antibody (Cat#AGI1497, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Beta-secretase 1 expression in C2C12 cells using Beta-secretase 1 antibody (Cat#AGI1497, 1:2,000). Green, isotype control; red, Beta-secretase 1.