

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

Rabbit monoclonal antibody
Catalog # AGI1497

Product Information

Application	WB, FC
Primary Accession	P56817
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB4865
Calculated MW	55764
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

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

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.