10320 Camino Santa Fe, Suite G
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BACE2C Antibody (CT)

Rabbit Polyclonal Antibody

Catalog # ABV11273

Specification

BACE2C Antibody (CT) - Product Information

Application	**WB, IHC**
Primary Accession	Q9Y5Z0
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**56180**

BACE2C Antibody (CT) - Additional Information

Gene ID 25825

Positive Control	**Western blot: A549 cell lysate, IHC: human cancer tissue**
Application & Usage	**Western blot: ~1:1000, IHC: ~1:50-1:100.**

Other Names
BACE2; AEPLC; ALP56; ASP21; Beta-secretase 2; Aspartic-like protease 56 kDa; Aspartyl protease 1; Beta-site amyloid precursor protein cleaving enzyme 2; Down region aspartic protease; Memapsin-1; Membrane-associated aspartic protease 1; Theta-secretase

Target/Specificity
BACE2C

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl of antibody in PBS with 0.09% (W/V) sodium azide

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
BACE2C Antibody (CT) is for research use only and not for use in diagnostic or therapeutic procedures.

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BACE2C Antibody (CT) - Protein Information

Name BACE2

Synonyms AEPLC, ALP56, ASP21

Function
Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves APP, between residues 690 and 691, leading 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. It has also been shown that it can cleave APP between residues 671 and 672 (PubMed:10591213, PubMed:11083922, PubMed:11423558, PubMed:15857888, PubMed:16816112). Involved in the proteolytic shedding of PMEL at early stages of melanosome biogenesis. Cleaves PMEL within the M-beta fragment to release the amyloidogenic PMEL luminal fragment containing M-alpha and a small portion of M-beta N-terminus. This is a prerequisite step for subsequent processing and assembly of PMEL fibrils into amyloid sheets (PubMed:23754390). Responsible also for the proteolytic processing of CLTRN in pancreatic beta cells (PubMed:21907142).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Golgi apparatus. Endoplasmic reticulum. Endosome Melanosome. Note=Colocalizes with PMEL in stage I and II melanosomes.

Tissue Location
Brain. Present in neurons within the hippocampus, frontal cortex and temporal cortex (at protein level). Expressed at low levels in most peripheral tissues and at higher levels in colon, kidney, pancreas, placenta, prostate, stomach and trachea. Expressed at low levels in the brain. Found in spinal cord, medulla oblongata, substantia nigra and locus coruleus. Expressed in the ductal epithelium of both normal and malignant prostate.

BACE2C Antibody (CT) - 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

BACE2C Antibody (CT) - Images

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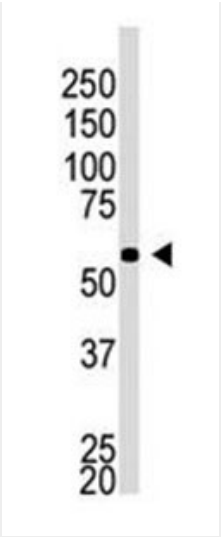
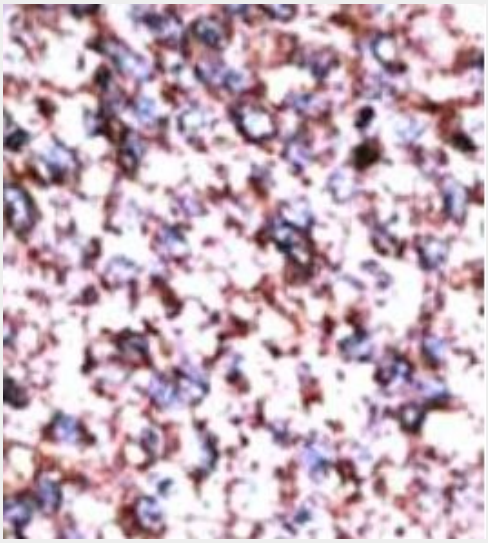


The anti-BACE2C C-term Pab is used in Western blot to detect BACE2C in A549 cell lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with APOF antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated

BACE2C Antibody (CT) - Background

Accumulation of the amyloid-beta (Abeta) plaque in the cerebral cortex is a critical event in the pathogenesis of Alzheimer's disease. Abeta peptide is generated by proteolytic cleavage of the beta-amyloid protein precursor (APP) at beta- and gamma-sites by proteases. The long-sought beta-secretase was recently identified by several groups independently and designated beta-site APP cleaving enzyme (BACE) and aspartyl protease 2 (Asp2). A BACE homolog was recently cloned and designated BACE2, Asp1, DRAP (for Down region aspartic protease), and memapsin 1. BACE2 also cleaves APP at beta-site and at a different site within Abeta. BACE2 locates on chromosome 21q22.3, the so-called 'Down critical region', suggesting that BACE2 and Abeta may also contribute to the pathogenesis of Down syndrome.