

# BACE2 / Asp1 (CT) antibody (pAb)

## Rabbit Anti-Human beta-Site APP Cleaving Enzyme 2

### Instruction Manual

Catalog Number	PK-AB718-2249
Synonyms	BACE2 Antibody: Asp2
Description	Accumulation of the amyloid- $\beta$ ( $A\beta$ ) plaque in the cerebral cortex is a critical event in the pathogenesis of Alzheimer's disease. $\alpha\beta$ 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). BACE/Asp2 is a novel transmembrane aspartic protease and co-localizes with APP. A BACE homolog was recently cloned and designated BACE2, Asp1, DRAP (for Down region aspartic protease), and memapsin 1. BACE2 also cleaves APP at b-site and at a different site within $\alpha\beta$ . BACE2 locates on chromosome 21q22.3, the so-called 'Down critical region', suggesting that BACE2 and $\alpha\beta$ may also contribute to the pathogenesis of Down syndrome.
Quantity	100 $\mu$ g
Source / Host	Rabbit
Immunogen	Rabbit polyclonal BACE2 antibody was raised against a peptide corresponding to amino acids near the carboxy terminus of human BACE2 .
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 $\mu$ l or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually.h application have to be determined individually.  BACE2 antibody can be used for detection of BACE2 by Western blot at 1 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2 $\mu$ g/mL.
Images	Available upon request.
References	Vassar R, et al. $\beta$ -secretase cleavage of Alzheimer's amyloid precursor protein by the transmembrane aspartic protease BACE. Science 1999;286:735-41 Hussain I, et al. Identification of a novel aspartic protease (Asp 2) as $\beta$ -secretase. Mol Cell Neurosci 1999;14:419-27 Sinha S, et al. Purification and cloning of amyloid precursor protein $\beta$ -secretase from human brain. Nature 1999;402:537-40 Yan R, et al. Membrane-anchored aspartyl protease with Alzheimer's disease $\beta$ -secretase activity. Nature 1999;402:533-7
Images	Available upon request.
Related Products	Blocking Peptide, Cat. No. PK-AB718-2249P Human heart Tissue Lysate, Cat. No. PK-AB718-1301 BACE Antibody (NT), Cat. No. PK-AB718-2247

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