Introduction: Alzheimer’s disease (AD) is characterized by the presence of extracellular plaques and intracellular neurofibrillary tangles (NFTs) in the brain. The major protein component of these plaques is beta amyloid peptide (Aβ), a 40 to 43 amino acid peptide cleaved from amyloid precursor protein by beta-secretase and a putative γ secretase. Increased release of the ‘longer forms’ of Aβ peptide, Aβ 42 or Aβ 43, which have a greater tendency to aggregate than Aβ 40, occurs in individuals expressing certain genetic mutations, expressing certain ApoE alleles, or may involve other, still undiscovered, factors. Many researchers theorize that it is this increased release of Aβ 42/Aβ 43 which leads to the abnormal deposition of Aβ and the associated neurotoxicity in the brains of affected individuals. This antibody specifically reacts human Aβ N-terminal end, therefore it is very useful to detect APP fragments generated by β-secretase cleavage.

Antigen: Synthetic peptide of a part of human Amyloidβ (1-16) (DAEFRHDSGYEVHHQK)

Source: Mouse-Mouse hybridoma (X63 – Ag 8.653 × BALB/c mouse spleen cells)

Clone: 82E1  
Subclass: IgG1

Purification: Affinity purified with antigen peptide

Form: Lyophilized product from PBS containing 1 % BSA and 0.05 % NaN3

How to use: 0.5 mL deionized water will be added to the product, then its concentration comes to 100 μg/mL

Stability: Lyophilized product, 5 years at 2 – 8 °C  
Solution, 2 years at –20 °C

Application: This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues after formic acid treatment*1 by several techniques such as Avidin Biotin Complex (ABC) Method. The optimal concentration is about 1 μg/mL, however, the concentration should be optimized by each laboratory.

*1: rinsing by running water after formic acid treatment for 5 minutes following de-paraffin.

This antibody can be used for western blotting in concentration of about 1 μg/mL

This antibody can be used for immuno-precipitation by 3 - 5 μg/test.

Specificity: Human Amyloidβ N-terminal end specific. Reacts with both soluble and fibrillar Aβ at the comparable level. Not react with non-cleaved APP.