

Code No. 10323

**Anti-Human
Amyloid β (N) (82E1) Mouse IgG MoAb**Volume : 50 μ g
Lot No : 0F-422

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 ($A\beta$), 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 $A\beta$ peptide, $A\beta_{42}$ or $A\beta_{43}$, which have a greater tendency to aggregate than $A\beta_{40}$, 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 $A\beta_{42}/A\beta_{43}$ which leads to the abnormal deposition of $A\beta$ and the associated neurotoxicity in the brains of affected individuals.

This antibody specifically reacts human $A\beta$ N-terminal end, therefore it is very useful to detect APP fragments generated by β -secretase cleavage.

Antigen : Synthetic peptide for Human Amyloid (1-16) (DAEFRHDSGYEVHHQK)

Source : Mouse-Mouse hybridoma (supernatant)
(X63-Ag8.653 \times BALB/c mouse spleen cells)

Clone : 82E1 **Subclass** : IgG₁

Purification : Affinity purified with antigen peptide

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

How to use : 0.5mL distilled water will be added to the product (The conc. comes up 100 μ g/mL)

Dilution : PBS (pH7.4) containing 1% BSA, 0.05% NaN₃

Stability : Lyophilized product, 5 years at 2 – 8 $^{\circ}$ C
: Solution, 2 years at -20 $^{\circ}$ C

Application : This antibody can be stained in formalin fixed paraffin embedded tissues after formic acid treatment*¹ by several immunohistochemical techniques such as Avidin Biotin Complex (ABC) Method. The optimal dilution is about 1 μ g/ml, however, the dilution rate should be optimized by each laboratories.

*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 μ g/mL.
- : This antibody can be used for Immunoprecipitation.

Specificity : Human Amyloid β N-terminal specific.
Reacts with both soluble and fibrillar $A\beta$ to a similar degree
Non reacts with non-cleaved APP
Non cross reacts with mouse and rat.

Reference : Horikoshi Y, Sakaguchi G, Becker AG, Gray AJ, Duff K, Aisen PS, Yamaguchi H, Maeda M, Kinoshita N, Matsuoka Y. Development of $A\beta$ terminal end-specific antibodies and sensitive ELISA for $A\beta$ variant. Biochem Biophys Res Commun. 319(3):733-7, 2004.

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