

Code No. 10326

**Anti-Human
Amyloid β (N) (82E1) Mouse IgG MoAb Biotin**Volume : 50 μ g
Lot No : 0L-526

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 β -secretase and γ -secretase. Increased release of $A\beta$ 42 or $A\beta$ 43, both of which exhibit a greater tendency to aggregate than $A\beta$ 40, occurs in individuals expressing certain genetic mutations, ApoE alleles or may involve other 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 is biotinylated antibody, therefore, the antibody can be useful for immunohistochemistry and western blotting applications to APP transgenic mice such as Tg2576.

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 °C
: Solution, 2 years at –20 °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 1 μ g/mL, however, the dilution rate 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 1 μ g/mL.

Specificity : Human $A\beta$ and β -CTF N-terminal specific.
Reacts with both soluble and fibrillar $A\beta$ to a similar degree
Non reacts with non-cleaved APP
Very low cross reacts with mouse and rat $A\beta$ (<10%).

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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