Amyloid Beta 1-16 ($A\beta_{1-16}$) Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 57003 (clone Ab3)

Size: 100ug in PBS, pH 7.4. Purified by Protein G affinity chromatography.

BACKGROUND

Accumulation and aggregation of amyloid β (Aβ) in the brain is indicated as the trigger of a pathological cascade that causes Alzheimer disease (AD). There is now compelling evidence that metal binding to Aβ is involved in AD pathogenesis. The amino acid region 1-16 is widely considered as the metal binding domain of Aβ. Unlike copper(II) that prefers the N-terminal amino group as the main binding site, zinc(II) is preferentially placed in the 8-16 amino acidic region of Aβ (1-16).

SPECIFICATION SUMMARY

Antigen: Synthetic peptide corresponding to $A\beta_{1-16}$.

Host Species: Mouse

Antibody Class: IgG1

SPECIFICITY

This antibody recognizes $A\beta_{1-16}$ as well as other Aβ peptides: $A\beta_{37}$, $A\beta_{38}$, $A\beta_{39}$, $A\beta_{40}$, and $A\beta_{42}$. **NOTE: When administered to young Tg2576 mice with minimal Aβ deposition and to older mice with higher Aβ loads, this antibody reduced Aβ accumulation in the brain.**

APPLICATIONS

Immunoblotting, *Immunohistochemistry: Immunofluorescence, Immunoprecipitation, ELISA*. Test at 1-10ug/ml in all applications. These are recommended concentrations; enduser should determine optimal concentrations for their applications.

See specific product references below for more information.

DILUTION INSTRUCTIONS

Dilute in PBS or medium which is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at -20°C.

PRODUCT REFERENCES

1. Levites Y et al. 2006. Anti-Aβ42 and Anti-Aβ40 specific monoclonal antibodies attenuate amyloid deposition in an Alzheimer's disease mouse model. J Clin Invest 116: 193-201.
2. Levites Y et al. 2006. Intracranial Adeno-Associated Virus-Mediated Delivery of Anti-Pan Amyloid β, Amyloidβ40, and Amyloid β42 Single-Chain Variable Fragments Attenuates Plaque Pathology in Amyloid Precursor Protein Mice. J Neurosci 26: 11923-11928.
3. Levites Y et al. 2006. Insights into the mechanisms of action of anti-Aβ antibodies in Alzheimer's disease mouse models. FASEB J 20: 2576-8.