

## **beta-Amyloid (Abeta) [17–26]. Mouse Monoclonal Antibody 4G8 , Human**

APP

### **BACKGROUND**

Beta-amyloid peptides are lipophilic metal chelators with metal-reducing activity. They bind transient metals such as copper, zinc and iron. and *in vitro*, can reduce Cu(2+) and Fe(3+) to Cu(+) and Fe(2+), respectively. Beta-amyloid peptides bind to lipoproteins and apolipoproteins E and J in the CSF and to HDL particles in plasma, inhibiting metal-catalyzed oxidation of lipoproteins. Promotes both tau aggregation and TPK II-mediated phosphorylation. Interaction with overexpressed HADH2 leads to oxidative stress and neurotoxicity.<sup>1</sup> The gamma-CTF peptides as well as the caspase-cleaved peptides, including C31, are potent enhancers of neuronal apoptosis

### **USE**

Synthetic peptide corresponding to amino acid residues 17–24 of Aβ (β-amyloid) peptide.

### **ORDERING INFORMATION**

**CATALOG NUMBER**  
X1887M

**SIZE**  
100 μg

**FORM**  
Unconjugated

**HOST/CLONE**  
Mouse Clone 4G8

**FORMULATION**  
In PBS without preservatives or carrier proteins

**CONCENTRATION**  
1 mg/ml

**ISOTYPE**

IgG2b

**APPLICATIONS**  
Western Blot, Immunoprecipitation, Immunohistochemistry, ELISA

### **SPECIES REACTIVITY**

Human

### **COMMENTS**

The antibody is suitable for use in the detection of Aβ by immunohistochemistry with fixed sections of Alzheimer's Disease (AD) brain (1:500–1:5,000), Western blotting (1:100–1:1,000) and ELISA (1:1,000–1:10,000). The epitope for this antibody must be re-exposed by treatment of fixed tissue sections with 70% formic acid for 10–30 minutes at room temperature or by heat-induced epitope retrieval.

### **STORAGE**

Product should be stored at -70°C. Aliquot to avoid freeze/thaw cycles

### **STABILITY**

Products are stable for one year from purchase when stored properly

**For research use only. Not for use in human diagnostics or therapeutics.**

**POSITIVE CONTROL/TISSUE EXPRESSION**

Expressed in all fetal tissues examined with highest levels in brain, kidney, heart and spleen. In adult brain, highest expression found in the frontal lobe of the cortex and in the anterior perisylvian cortex-opercular gyri.

**SHIP CONDITIONS**

Ship on dry ice, freeze upon arrival

**REFERENCES**

Kim, K.S. et al. (1988) Production and characterization of monoclonal antibodies reactive to synthetic cerebrovascular amyloid peptide. *Neurosci. Res. Commun.* 2: 121–131.

Kim, K.S. et al. (1990) Detection and quantitation of amyloid B-peptide with two monoclonal antibodies. *Neurosci. Res. Commun.* 7:113–123.

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