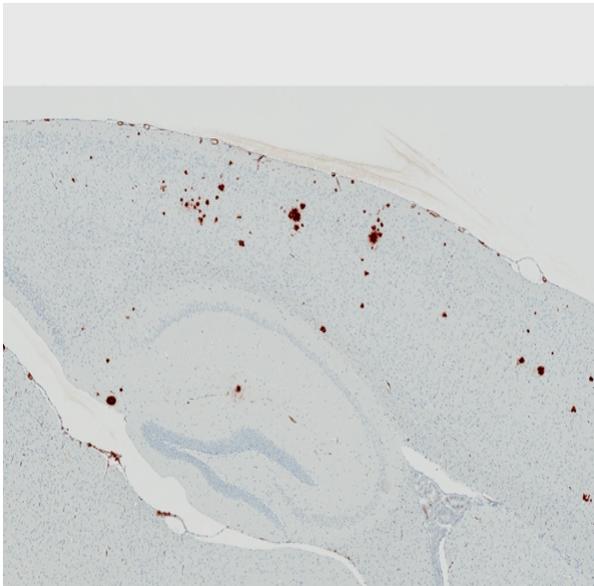




## Product Data Sheet

|                             |  |
|-----------------------------|--|
| <b>Product Name:</b>        | <b>Anti- beta-Amyloid (1-40), Mouse Monoclonal</b>   |
| <b>Clone and Isotype:</b>   | MM32-13.1.1; IgG <sub>1</sub>  |
| <b>Catalog Number:</b>      | AS-55921   |
| <b>Lot Number:</b>          | See label on the vial  |
| <b>Quantity:</b>            | 50 µg in 250 µl at 0.2 mg/ml concentration   |
| <b>Product Description:</b> | This mouse monoclonal antibody is supplied as a purified IgG <sub>1</sub> in 250 µl of 40 mM MOPS buffer (pH 7.5) containing 0.1% BSA, 50% glycerol, 0.1% sodium azide.  |
| <b>Immunogen:</b>           | Synthetic peptide corresponding to aa 35-40 (MVGGVV) of β-amyloid (1-40)   |
| <b>Species Reactivity:</b>  | This antibody will recognize human, mouse, and rat β-amyloid (1-40). Specificity was confirmed using sandwich ELISA and Immunohistochemistry. This antibody does not cross-react with β-amyloid (1-37), β-amyloid (1-38), and β-amyloid (1-42) in sandwich ELISA when used at concentrations up to 50 ng/ml. |
| <b>Application Notes:</b>   | The following concentration ranges are recommended starting points for this product. The investigator should determine the optimal working concentrations for specific applications.<br>Immunohistochemistry: 0.5-1 µg/ml<br>Western Immunoblot: 0.5-1 µg/ml   |



Immunohistochemistry of brain tissue from APP Tg2576 transgenic mouse probed with mouse anti-beta-amyloid (1-40) antibody (Cat. #55921). Paraformaldehyde fixed sections were pretreated with 70% formic acid for 5 minutes followed by steaming for 30 minutes and blocked with normal goat serum (no need for antigen retrieval if fresh or frozen sections are used). Sections were incubated with anti-β-amyloid (1-40) antibody at 0.5 µg/ml overnight. Immunoreactivity was visualized using DAKO Envision HRP System (1:10,000 dilution). This antibody stains cored plaques only. (Image courtesy of Mayo Clinic Florida.)

**Background:**

Alzheimer's Disease (AD) is the most common neurodegenerative disorder in elderly people. It has been demonstrated that AD has biological cause and is characterized by the presence of senile plaques and neurofibrillary tangles mainly in cerebral cortex and hippocampus brain regions.<sup>1-5</sup> beta-Amyloid 1-40 (A $\beta$ 40) and beta-amyloid 1-42 (A $\beta$ 42) are the main components of the above plaques; however, other forms of amyloid-beta peptides also present. Both peptides are cleaved from the Amyloid Precursor Protein (APP) by  $\beta$ -secretase and  $\gamma$ -secretase enzymes.<sup>2,3,5</sup> Many studies suggest that A $\beta$ 42 or/and A $\beta$ 43 are required to initiate formation of amyloid plaques and neurofibrils that leads to the neurodegeneration<sup>1-5</sup> while A $\beta$ 40 is less neurotoxic.

**References:**

1. Levites, Y. et al. *J. Clin. Invest.* 116(1): 193-201: 2006
2. Broersen, K. et al. *Alzheimer's Res. Ther.* 2: 1-14, 2010
3. Zhang, Y-W. et al. *Mol. Brain* 4: 1-13: 2011
4. Koechling, T. et al. *Int. J. Alzheimer's Dis.* 2010
5. Bobba, A., et al. *Int. J. Alzheimer's Dis.* 2010.

**Storage:**

Store at -20 °C for up to 12 months upon receiving this product.

**Related Products:**

[Beta-Amyloid \(1-40\) and Related Peptides](#)

[Beta-Amyloid \(1-42\) and Related Peptides](#)

[Goat anti - mouse IgG \(H+L\), HRP - conjugated](#)

[Goat anti - mouse IgG \(H+L\), Biotinylated](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 405 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 488 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 555 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 594 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 647 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 680 - labeled](#)

[Goat anti - mouse IgG \(H+L\), highly cross - adsorbed, HiLyte Fluor™ 750 - labeled](#)

**This product is for *in vitro* research use only.**