

## Anti- $\beta$ -Amyloid, 1-16

**Catalog # / Size:** 803015 / 200  $\mu$ l  
803016 / 500  $\mu$ l  
803017 / 1 ml

**Previously:** Covance Catalog# SIG-39300  
Signet Catalog# 9300-02, 9300-05, 9300-10

**Clone:** 6E10

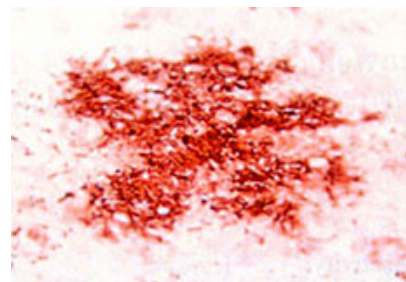
**Isotype:** Mouse IgG1

**Reactivity:** Human

**Preparation:** Ascites

**Concentration:** The concentration is not quantified as this product is sold as undiluted crude mouse ascites fluid. The concentration might vary from lot-to-lot and an estimated concentration would be 1-3 mg/ml.

**Storage:** Store at -20°C or below. Upon initial thawing, apportion into working aliquots and store at -20°C or below. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody. Do not store in frost-free freezers.



6E10 immunostaining on brain section of Tg-SweArc transgenic mice.

## Applications:

**Applications:** ELISA, WB, IHC, IP  
EM - Reported in the literature

**Recommended Usage:** Each lot of this antibody is quality control tested by ELISA assay.

The optimal working dilution should be determined for each specific assay condition.

- **WB:** 1:1,000 - 1:2,000\*
- **IHC:** 1:100 - 1:1,000

**Tissue:** Formalin-fixed human paraffin-embedded brain sections, frozen brain sections  
**Pre-treatment:** Formic acid (70%) for 10-30 minutes at room temperature

**Application Notes:** This antibody is effective in immunoblotting (WB), immunohistochemistry (IHC), immunoprecipitation (IP), immunoelectron microscopy (EM), and ELISA.

\*Expected MW: APP = ~100 kD, sAPPalpha = ~100 kD, Beta Amyloid = 4 kD

This antibody is reactive to amino acid residue 1-16 of beta amyloid. The epitope lies within amino acids 3-8 of beta amyloid (EFRHDS). Beta amyloid forms are deposited in the CNS of patients with Alzheimer's disease and Down's syndrome. BioLegend's beta amyloid antibody clone 6E10 reacts to the abnormally processed isoforms, as well as precursor forms.

**This antibody is exclusively provided by BioLegend.**

- Application References:**
1. Thakker DR, et al. Intracerebroventricular amyloid-beta antibodies reduce cerebral amyloid angiopathy and associated micro-hemorrhages in aged Tg2576 mice. *Proc Natl Acad Sci USA Feb 25, 2009.*
  2. Klyubin I, et al. Amyloid beta protein immunotherapy neutralizes Abeta oligomers that disrupt synaptic plasticity in vivo. *Nat Med 11(5):556-61, 2005.*
  3. Oddo S, et al. Chronic nicotine administration exacerbates taupathology in a transgenic model of Alzheimer's disease. *PNAS 102(8):3046-51, 2005.*
  4. Fratta P, et al. Mutant ubiquitin UBB+1 is accumulated in sporadic inclusion-body myositis muscle fibers. *Neurology 63:1114-1117, 2004.*
  5. Funamoto S, et al. Truncated carboxyl-terminal fragments of beta-Amyloid precursor protein are processed to Amyloid beta-proteins 40 and 42. *Biochem 43:13523-13540, 2004.*
  6. Herzig M, et al. Abeta is targeted to the vasculature in a mouse model of hereditary cerebral hemorrhage with amyloidosis. *Nat. Neuro. 7(9):954-959, 2004.*
  7. Kim KS, et al. Production and characterization of monoclonal antibodies reactive to synthetic cerebrovascular amyloid peptide. *Neurosci. Res. Comm. 2:121-130, 1988.*
  8. Kim KS, et al. *Neurosci. Res. Comm. 7:113, 1988.*
  9. Zheng Y, et al. 2012. *PLoS One 6:39035. (IHC) PubMed*
  10. Abramowski D, et al. *J Neurosci. 32:1273. (WB, IP) PubMed*
  11. Lablans A, et al. 2014. *J. Neurosci. 34:13629. (WB, IHC) PubMed*
  12. Gowert NS, et al. 2014. *PLoS One 2:e90523. (IHC, EM) PubMed*

**Description:** Amyloid beta (A $\beta$  or Abeta) denotes peptides of 36&ndash;43 amino acids in length that are crucially involved in

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

Alzheimer's disease as the main component of the amyloid plaques found in the brains of Alzheimer patients. The peptides result from the amyloid precursor protein (APP), which is cut by certain enzymes to yield A $\beta$ . A $\beta$  molecules can aggregate to form oligomers (known as "seeds") which are believed to be able to induce other A $\beta$  molecules to also take the misfolded oligomeric form, leading to a chain reaction akin to a prion infection. The seeds or the resulting amyloid plaques are toxic to nerve cells. The other protein implicated in Alzheimer's disease, tau protein, also forms such prion-like misfolded oligomers, and there is some evidence that misfolded A $\beta$  can induce tau to misfold.

**Other Names:** AAA, ABETA, ABPP, AD1, APPI, CTFgamma, CVAP, PN-II, PN2, Amyloid beta A4 protein, preA4, protease nexin-II, peptidase nexin-II, beta-amyloid peptide, alzheimer disease amyloid protein, cerebral vascular amyloid peptide, APP, Amyloid Precursor Protein

<b>Related Products:Product</b>	<b>Clone</b>	<b>Application</b>
Purified anti- $\beta$ -Amyloid Pyroglutamyl (Glu3)	337.48	WB, IHC
Purified anti- $\beta$ -Amyloid, 1-10	20.1	ELISA, WB, IHC, IF
Purified anti- $\beta$ -Amyloid, 1-16	6E10	ELISA, WB, IHC, IP
Purified anti- $\beta$ -Amyloid, 17-24	4G8	ELISA, WB, IHC, IP
Purified anti- $\beta$ -Amyloid, 1-8	1E11	ELISA, WB, IHC
Purified anti-mouse/rat $\beta$ -Amyloid	Poly18058	ELISA, WB, IHC, IF
Purified anti-mouse/rat $\beta$ -Amyloid, 1-16	M3.2	WB, ICC, IP

---

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.