

Purified anti- β -Amyloid, 1-40 Antibody (Previously Covance catalog# SIG-39140)

Catalog# / Size	805409 / 50 μ L 805401 / 200 μ L 805402 / 500 μ L 805403 / 1 mL
Clone	11A50-B10
Regulatory Status	RUO
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
Previously	Signet Catalog# 9140-02 Signet Catalog# 9140-05 Signet Catalog# 9140-10 Covance Catalog# SIG-39140
Isotype	Mouse IgG1, κ
Description	Amyloid beta ($A\beta$ or Amyloid beta) denotes peptides of 36-43 amino acids in length that are crucially involved in 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.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution (no preservatives or carrier proteins).
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	Do not store antibody diluted below 50 μ g/mL in the absence of protein (i.e.: add 2% bovine serum albumin). The antibody solution should be stored undiluted between 2°C and 8°C. Please note the storage condition for this antibody has been changed from -20°C to between 2°C and 8°C. You can also check your vial or your CoA to find the most accurate storage condition for this antibody.
Application	IHC-P - Quality tested DOT Blot, ELISA - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 5.0 - 10 μ g/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Clone 11A50-B10 is reactive to the C-terminus of beta amyloid and is specific for the isoform ending at the 40th amino acid.
Application References	1. Watts JC, <i>et al.</i> 2014. <i>Proc. Natl. Sci. USA</i> 28:10323. (IHC-P) PubMed 2. Diomede L, <i>et al.</i> 2014. <i>Neurobiol. Dis.</i> 62:521. (Dot Plot) PubMed

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4. Portelius E, *et al.* 2006. *J. Proteome Res.* 4:1010. **(IP)**
5. Vingtdeux V, *et al.* 2011. *FASEB J.* 25:219. **(ELISA)** [PubMed](#)
6. Ohmi K, *et al.* 2011. *PLoS One* 11:e27461. **(IHC-Other)** [PubMed](#)

Product Citations

1. Vingtdeux V, *et al.* 2011. *FASEB J.* 25:219-231. [PubMed](#)
2. Watts J, *et al.* 2014. *Proc Natl Acad Sci U S A.* 111:10323-10328. [PubMed](#)
3. Lisa Dolfe *et al.* 2018. *Journal of Alzheimer's disease reports.* 2(1):27-39. [PubMed](#)
4. Diomedea L, *et al.* 2014. *Neurobiol Dis.* 62:521-532. [PubMed](#)
5. Watanabe H, *et al.* 2012. *J Neurosci.* 32:5085-5096. [PubMed](#)
6. Voth S, *et al.* 2020. *FASEB J.* 9156:34. [PubMed](#)
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11. Kim K, *et al.* 2020. *Nat Commun.* 0.540972222. [PubMed](#)
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13. Ohmi K, *et al.* 2011. *PLoS One.* 6:e27461. [PubMed](#)
14. Parker H, *et al.* 2020. *EMBO Mol Med.* 12:e11185. [PubMed](#)
15. Ruiz-Riquelme A, *et al.* 2018. *Acta Neuropathol Commun.* 6:26. [PubMed](#)
16. Carreras I, *et al.* 2019. *Sci Rep.* 9:10972. [PubMed](#)

RRID

AB_2734555 (BioLegend Cat. No. 805409)
AB_2564680 (BioLegend Cat. No. 805401)
AB_2564681 (BioLegend Cat. No. 805402)
AB_2564679 (BioLegend Cat. No. 805403)

Antigen Details

Biology Area	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
Molecular Family	APP/ β -Amyloid
Gene ID	351

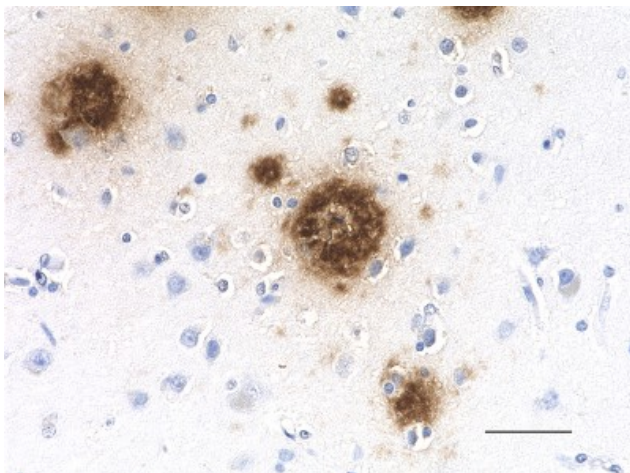
Related Protocols

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

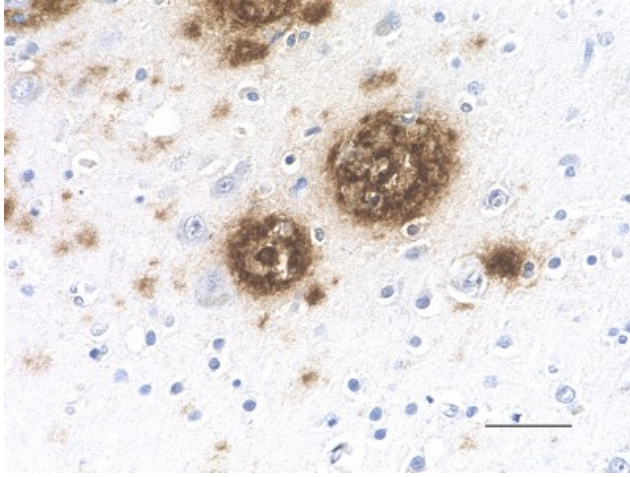
Other Formats

Biotin anti- β -Amyloid, 1-40, HRP anti- β -Amyloid, 1-40, Purified anti- β -Amyloid, 1-40

Product Data



IHC staining of purified anti- β -Amyloid, 1-40 antibody (clone 11A50-B10) on formalin-fixed paraffin-embedded Alzheimer's disease brain tissue. Following antigen retrieval using 70% formic acid for 20 minutes at room temperature, the tissue was incubated with 10 μ g/ml of the primary antibody overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 μ m



IHC staining of purified anti- β -Amyloid, 1-40 antibody (clone 11A50-B10) on formalin-fixed paraffin-embedded Alzheimer's disease brain tissue. Following antigen retrieval using 70% formic acid for 20 minutes at room temperature, the tissue was incubated with 10 μ g/ml of the primary antibody overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 μ m

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