

## Purified anti- $\beta$ -Amyloid, x-42 Antibody (Previously Covance catalog# SIG-39169)

<b>Catalog# / Size</b>	812101 / 50 $\mu$ g
<b>Clone</b>	1-11-3
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	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>Previously</b>	Covance Catalog# SIG-39169
<b>Isotype</b>	Rabbit IgG
<b>Description</b>	Alzheimer's disease is characterized by the accumulation of aggregated A $\beta$ peptides in senile plaques and vascular deposits. A $\beta$ peptides are derived from amyloid precursor protein (APP) through sequential proteolytic cleavage of APP by $\beta$ - and $\gamma$ -secretases generating diverse A $\beta$ species. A $\beta$ can aggregate to form soluble oligomeric species and insoluble fibrillar or amorphous assemblies. Some forms of the aggregated peptides are toxic to neurons.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rabbit
<b>Formulation</b>	Phosphate-buffered solution (no preservatives or carrier proteins).
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	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.
<b>Application</b>	<a href="#">IHC-P - Quality tested</a> <a href="#">WB - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	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 $\mu$ g/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	This antibody is effective in immunohistochemistry (IHC-P) and immunoblotting (WB).  This antibody is reactive to the C-terminus of beta amyloid and specific for the isoform that ends at the 42nd amino acid.
<b>Application References</b>	1. Currais A, <i>et al.</i> 2012. <i>Aging Cell</i> 6:1017. <b>(IHC)</b> <a href="#">PubMed</a> 2. Mastrangelo MA, Bowers WJ. 2008. <i>BMC Neurosci.</i> 9:81. <b>(IHC)</b> <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	1. Currais A, <i>et al.</i> 2012. <i>Aging Cell.</i> 11:1017-1026. <a href="#">PubMed</a> 2. Bowers M 2008. <i>BMC Neurosci.</i> 9:81. <a href="#">PubMed</a>
<b>RRID</b>	AB_2564763 (BioLegend Cat. No. 812101)
<b>Disclaimer</b>	Covered by US patents 5,675,063 and 7,429,487. Sold under license from Epitomics.

## Antigen Details

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<b>Structure</b>	Expected MW: 4 kD
<b>Distribution</b>	Tissue distribution: Primarily nervous system, but also adipose tissue, intestine, muscle. Cellular distribution: Cytosol, endosomes, nucleus, plasma membrane, extracellular, and golgi apparatus.
<b>Function</b>	The normal function of A $\beta$ is not well understood. Several potential physiological roles have been proposed, including: activation of kinase enzymes; protection against oxidative stress; regulation of cholesterol transport; transcription factor, and as an anti-microbial agent.
<b>Biology Area</b>	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
<b>Molecular Family</b>	APP/ $\beta$ -Amyloid
<b>Gene ID</b>	<a href="#">351</a>

## Related Protocols

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

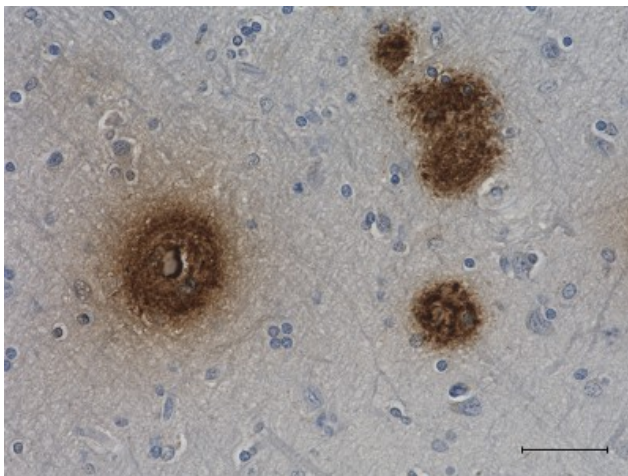
## Other Formats

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Biotin anti- $\beta$ -Amyloid, x-42, Purified anti- $\beta$ -Amyloid, x-42

## Product Data

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IHC staining of purified anti- $\beta$ -Amyloid, x-42 antibody (clone 1-11-3) on formalin-fixed paraffin-embedded human Alzheimer's disease brain tissue. Following antigen retrieval using 70% formic acid for 20 minutes at room temperature, the tissue was incubated with 5  $\mu$ 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  $\mu$ m

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