

Alexa Fluor® 647 anti-β-Amyloid, 1-16 Recombinant Antibody

Catalog# / Size	618254 / 100 µg
Clone	6E10.Rec
Regulatory Status	RUO
Other Names	AAA, ABETA, ABPP, AD1, APPI, CTFgamma, CVAP, PN-II, PN2, Amyloid beta A4 protein, preA4, protease, peptidase nexin-II, beta-amyloid peptide, alzheimer disease amyloid protein, cerebral vascular amyloid peptide, APP, Amyloid Precursor Protein
Isotype	Mouse IgG1, κ
Description	Alzheimer's disease is characterized by the accumulation of aggregated β-amyloid (Aβ) peptides in senile plaques and vascular deposits. Aβ peptides are derived from amyloid precursor proteins (APP) through sequential proteolytic cleavage of APP by β-secretases and γ-secretases generating diverse Aβ species. Aβ 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

Verified Reactivity	Human
Antibody Type	Recombinant
Host Species	Mouse
Immunogen	β-Amyloid signal peptide residues 1-16
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	IHC-P - Quality tested
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 - 10.0 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application. * Spark Red™ 647 has a maximum excitation of 649 nm and a maximum emission of 665 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Additional Product Notes	For use in immunohistochemistry on formalin-fixed paraffin-embedded tissue (IHC-P), it is recommended to perform antigen retrieval using 88% formic acid for 20 minutes.
RRID	AB_3720603 (BioLegend Cat. No. 618254)

Antigen Details

Structure	Amyloid precursor protein is a 770 amino acid protein with a molecular mass of ~100 kD. According to the UniProtKB database, APP (ID# P05067) has 11 isoforms (34 to ~90 kD) and the 770 form has been designated as the canonical form. Isoform APP695 is the predominant form expressed in neuronal tissue. Isoforms APP751 and APP770 are widely expressed in non-neuronal cells. Isoform APP751 is the most abundant form in T-lymphocytes. A β denotes peptides of 36-43 amino acids generated from cleavage of APP by secretases. A β has an apparent molecular mass of about 4 kD.
Distribution	Tissue distribution: Primarily nervous system, but also adipose tissue, intestine, and muscle Cellular distribution: Cytosol, endosomes, nucleus, plasma membrane, extracellular, and Golgi apparatus
Function	The normal function of A β 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.
Biology Area	Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation
Antigen References	1. Kumar A, <i>et al.</i> 2015. <i>Pharmacol Rep.</i> 67:195-203. 2. Sadigh-Eteghad S, <i>et al.</i> 2015. <i>Med Princ Pract.</i> 24:1-10. 3. Hampel H, <i>et al.</i> 2015. <i>Expert Rev Neurother.</i> 15:83-105. 4. Puig KL & Combs CK. 2012. <i>Exp Gerontol.</i> 48: 608-11. 5. Selkoe DJ & Hardy J. 2016. <i>EMBO Mol Med.</i> 8:595-608. 6. Walsh DM & Selkoe DJ. 2007. <i>J Neurochem.</i> 101:1172-84.
Gene ID	351

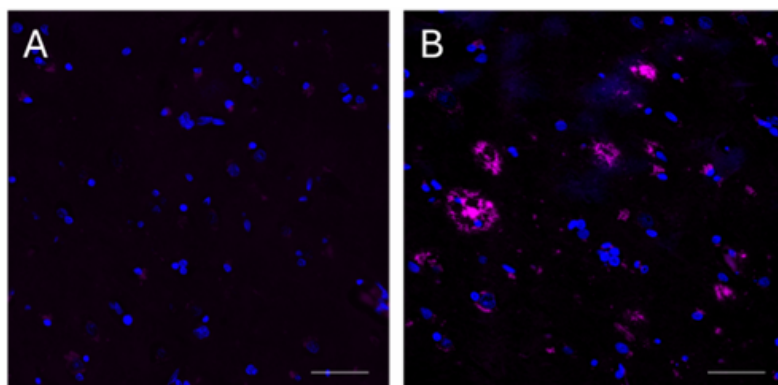
Related Protocols

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

Other Formats

Purified anti- β -Amyloid, 1-16 Recombinant Antibody, Alexa Fluor® 647 anti- β -Amyloid, 1-16 Recombinant Antibody, Biotin anti- β -Amyloid, 1-16 Recombinant Antibody

Product Data



IHC staining of Alexa Fluor® 647 anti- β -Amyloid, 1-16 antibody (clone 6E10.Rec) on formalin-fixed paraffin-embedded Alzheimer's disease brain tissue. Following antigen retrieval using 88% formic acid, the tissue was incubated with either Alexa Fluor® 647 Mouse IgG1, κ Isotype Control (panel A) (Cat. No. 400155) or primary antibody (panel B) overnight at 4°C. Nuclei were counterstained with DAPI (Cat. No. 422801), and the image was captured with a 40X objective. Scale Bar: 50 μ m

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