

Amyloid Precursor Protein (APP) Monoclonal Antibody (3E9)

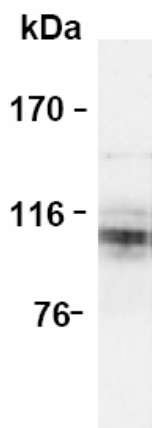
Product Specifications	
Catalog Number:	NBA-100
Host:	Mouse
Isotype:	IgG ₁
Species Reactivity:	Human and mouse
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB (ECL): 5-10 µg/mL
Predicted m.w:	~102 kDa
Concentration:	See product label
Purification:	Protein A Affinity
Format:	Lyophilized in PBS, 1% sucrose, and 0.09% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store lyophilized at 4°C; For optimal storage after reconstitution, aliquot to smaller portions and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Immunogen:	Synthetic peptide derived from the sequence of human APP695
Related Products	
SAB-100	Goat anti-Mouse IgG F(ab') ₂ Polyclonal Antibody, HRP Conjugate
NBA-102	APP Polyclonal Antibody

Background:

Deposition of Amyloid A4 protein precursor (APP) intraneuronally as neurofibrillary tangles, extracellularly as plaques, and in blood vessels is characteristic of both Alzheimer's disease (AD) and aged Down's Syndrome¹. The major protein found in these deposits is a small, insoluble, and highly aggregating polypeptide called amyloid beta peptide (Abeta), probably derived from aberrant catabolism of its precursor¹. Accumulation of Abeta in the cerebral cortex represents a critical event in the pathogenesis of AD². APP is cleaved by beta-secretase, producing a soluble derivative of the protein and a membrane anchored 99 amino acid carboxy fragment (C99)². The C99 fragment serves as a substrate for an unknown gamma-secretase to generate the 4 kDa (approximately 40-42 amino acids) Abeta, which forms the plaque core in AD³. The five identified forms of APP - APP395, APP563, APP695, APP751, and APP770 - result from alternative splicing of the APP gene. APP695 is the most predominant form in neuronal tissue, while APP751 is the predominant form found elsewhere.

References:

1. Kang, H., et al. (1987) Nature **325**, 733-736.
2. Selkoe, D. (1996) J Biol Chem. **271**, 18295-18298.
3. Wolfe, M.S., et al. (1999) Biochem. **38**, 11223-11230.



Western blot analysis of Amyloid Precursor Protein expression in mouse brain using APP Monoclonal Antibody (3E9)

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