



Rabbit (polyclonal) Anti-A β 40 Unconjugated PRODUCT ANALYSIS SHEET

Catalog Number:	44348A														
Lot Number:	See product label														
Quantity:	25 μ g														
Form of Antibody:	Rabbit polyclonal immunoglobulins in phosphate buffer, pH 7.4. Carrier and preservative free.														
Purification:	Purified from rabbit serum by peptide affinity chromatography.														
Immunogen:	The antibody was produced using a synthetic peptide derived from amino acids 34-40 within the carboxyl-terminus region of human β -Amyloid protein.														
Target Summary:	Alzheimer's Disease (AD) is characterized by the presence of extracellular plaques and intracellular neurofibrillary tangles (NFTs) in the brain. The major component of these plaques is A β peptide (β -amyloid), a 40 to 43 amino acid peptide cleaved from amyloid precursor protein (APP) by β -secretase (e.g., BACE) and a putative γ secretase. Increased release of the 'longer forms' of A β peptide, A β 42 or A β 43, which have a greater tendency to aggregate than A β 40, occurs in individuals expressing certain genetic mutations, expressing certain ApoE alleles, or may involve other, still undiscovered, factors. Many researchers theorize that this increased release of A β 42/A β 43 leads to the abnormal deposition of A β , and the associated neurotoxicity in the brains of affected individuals.														
Reactivity:	Reacts with human A β 40. No significant cross-reactivity to A β 42 has been observed. Previous lots have shown no cross reactivity against A β 43.														
Applications:	The antibody has been used in ELISA. Previous lots of this antibody have been used in dot blots, RIA and other related assays.														
Suggested Working Dilutions:	For ELISA applications, we recommend using the antibody at 1.0 μ g/mL. The optimal antibody concentration should be determined empirically for each specific application.														
Storage:	Store at -80°C . Upon initial thawing, apportion into working aliquots and store at -80°C . Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.														
Expiration Date:	Expires one year from the date of receipt when stored as instructed.														
Related Products:	<table><tr><td>Antibodies:</td><td>Aβ pan, Cat. # 44136</td></tr><tr><td>Neurofibrillary Tangle Antiserum, Cat. # AHB0161</td><td>APP [pT⁶⁶⁸], Cat. # 44336G</td></tr><tr><td>Presenilin-1, Cat. # AHB0181</td><td>N-terminal Aβ, Cat. # 4433850</td></tr><tr><td>Presenilin-2, Cat. # AHB0191</td><td>Aβ40 Biotin-labeled, Cat. # 443489</td></tr><tr><td>Alpha-synuclein, Cat. # AHB0211</td><td>Aβ42 Biotin-labeled, Cat. # 443449</td></tr><tr><td>BACE26-45, Cat. # AHB0271</td><td>Aβ42, Cat. # 44344</td></tr><tr><td>APP mAbP2-1 monoclonal, Cat. # 44100</td><td>Stress Signal Sampler Pack, Cat. # 44648G</td></tr></table>	Antibodies:	A β pan, Cat. # 44136	Neurofibrillary Tangle Antiserum, Cat. # AHB0161	APP [pT ⁶⁶⁸], Cat. # 44336G	Presenilin-1, Cat. # AHB0181	N-terminal A β , Cat. # 4433850	Presenilin-2, Cat. # AHB0191	A β 40 Biotin-labeled, Cat. # 443489	Alpha-synuclein, Cat. # AHB0211	A β 42 Biotin-labeled, Cat. # 443449	BACE26-45, Cat. # AHB0271	A β 42, Cat. # 44344	APP mAbP2-1 monoclonal, Cat. # 44100	Stress Signal Sampler Pack, Cat. # 44648G
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Related Products (continued): ELISAs:

APP human, Cat. # KHB0051

Alpha-synuclein, Cat. # KHB0061

A β 42 Colorimetric, Cat. # KHB3441A β 40 Colorimetric, Cat. # KHB3481Tau [pS²¹⁴] human, Cat. # KHB7021Tau [pS³⁹⁶] human, Cat. # KHB7031Tau [pS¹⁹⁹] human, Cat. # KHB7041A β 42 Fluorimetric, Cat. # 88344A β 40 Fluorimetric, Cat. # 88348**References:**

Patel, N.S., et al. (2005) Inflammatory cytokine levels correlate with amyloid load in transgenic mouse models of Alzheimer's disease. *J. Neuroinflammation* 2:9.

Lin, K.F., et al. (2004) Modulation of calcium/calmodulin kinase-II provides partial neuroprotection against beta-amyloid peptide toxicity. *Eur. J. Neurosci.* 19(8):2047-2055.

Sugarman, M.C., et al. (2002) Inclusion body myositis-like phenotype induced by transgenic overexpression of β APP in skeletal muscle. *Proc. Nat'l. Acad. Sci.* 99(9):6334-6339 (cites the use of this antibody in immunohistochemistry with formalin-fixed, paraffin embedded tissue sections and cryostat sections).

Ulery, P.G., et al. (2000) Modulation of β -amyloid precursor protein processing by the low density lipoprotein receptor-related protein (LRP): Evidence that LRP contributes to the pathogenesis of Alzheimer's Disease. *J. Biol. Chem.* 275:7410-7415.














Lefterov, I.M., et al. (2000) Human bleomycin hydrolase regulates the secretion of amyloid precursor protein. *FASEB J.* 14:1837-1847.

Vassar, R., et al. (1999) β -Secretase cleavage of Alzheimer's amyloid precursor protein by the transmembrane aspartic protease BACE. *Science* 286:735-741.

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Borchelt, D.R., et al. (1997) Accelerated amyloid deposition in the brains of transgenic mice coexpressing mutant presenilin 1 and amyloid precursor proteins. *Neuron* 19:939-945.

Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		<i>In vitro</i> diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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