

Product Specification Sheet

Human Beta-Amyloid 1-42

□ Cat. # BAM422-P	Human Beta-Amyloid 1-42 (full length,42 aa)	SIZE: 100 ug
□ Cat. # BAM422-P1000	Human Beta-Amyloid 1-42 (full length,42 aa)	SIZE: 1 mg

Alzheimer's Disease (AD) is a neurodegenerative disorder characterized by progressive loss of memory and cognition in the elderly. One of the most important and initial step involves proteolytic cleavage of amyloid precursor protein (APP, chromosome 21) releasing short 40, 42 & 43 aa peptides (beta amyloid1-40, 1-42, and 1-43). Polymerization of b-amyloid (Ab) and subsequent neuronal deposit (amyloid) leads to the degeneration of neurons involved in memory and cognition. Ab deposits have also been found to contain 2 additional proteins termed α -synuclein and β -synuclein. The 140 aa α -synuclein is identical with non- Ab component (NACP) of AD. The 134 aa human β -synuclein is homologous to 14 kDa bovine phosphoprotein 14. Mutations in α -synuclein gene causing a replacement of alanine with a threonine may cause the protein to misfold. Synucleins are primarily expressed in the brain. At least 3 forms: two large (140 aa SYN-1 & 149 aa SYN-2) and a small form (SYN-3, 42 aa) are produced by alternative splicing.

Source of Antigen and Antibodies

Full-length human β -1-42 (42 aa, **Cat # BAM422-P**) peptide (purity >95%, mol wt. 4514) should be dissolved in 0.1 M Acetic acid and then diluted further in PBS or other buffers.

Sequence:	Asp-Ala-Glu-Phe-Arg-His-Asp-Ser-Gly-Tyr-Glu-Val-His-His-Gln-Lys-Leu-Val-Phe-Phe-Ala-Glu-Asp-Val-Gly-Ser-Asn-Lys-Gly-Ala-Ile-Ile-Gly-Leu-Met-Val-Gly-Gly-Val-Val-Ile-Ala
MW	4514.1
Formula	C ₂₀₃ H ₃₁₁ N ₅₅ O ₆₀ S ₁
Purity	>95%

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

ELISA or Western

References Neve R et al (1992) PNAS 89, 3448; Goldgaber D et al (1987) Science 235, 877; Yankner B et al (1989) Science 245, 417; Golde T et al (1992) Science 255, 728; Wang R et al (1991) J. Biol. Chem. 266, 16960, Shigematause K et al (1992) J Neurosci. 31, 443; kang J et al (1987) Nature 325, 733; Tanzi r et al (1987) Science 235, 880; Weidmann A et al (1989) Cell 57, 115;

*This product is for In vitro research use only.

Related material available from ADI

BAM400-P	Human beta-Amyloid 1-40 (full length) peptide
BAM400-P1000	Human beta-Amyloid 1-40 (full length) peptide
BAM401-A	Anti-Human Beta-Amyloid 1-40 (C-terminal, 8 aa) IgG #1, aff pure
BAM401-P	Beta-Human Amyloid 1-40 (C-terminal, 8 aa) Control/blocking peptide # 1
BAM401-S	Anti-Human Beta-Amyloid 1-40 (C-terminal, 8 aa) antiserum #1
BAM402-P	Human Beta-Amyloid 1-40 Control/blocking peptide
BAM402-S	Anti-Human Beta-Amyloid 1-40/42 antiserum
BAM403-M	Monoclonal Anti-Human Beta-Amyloid 1-40/42 Ab, Neat ascites
BAM404-P	Human beta amyloid 10-24 aa Control/blocking peptide # 4
BAM405-P1	Rat beta-Amyloid 1-40 (full length) peptide
BAM421-A	Anti-Human Beta-Amyloid 1-42 (C-terminal, 8 aa) IgG # 1, aff pure
BAM421-P	Beta-Human Amyloid 1-42 (C-terminal, 8 aa) Control/blocking peptide # 1
BAM421-S	Anti-Human Beta-Amyloid 1-42 (C-terminal, 8 aa)antiserum # 1
BAM422-P	Human beta-Amyloid 1-42 (full length) peptide
BAM422-P1000	Human beta-Amyloid 1-42 (full length) peptide
BAM423-P1	Rat beta-Amyloid 1-42 (full length) peptide
APP11-P	Human Amyloid precursor protein (APP770) Control/blocking peptide
APP12-P	Human Amyloid precursor protein (APP) control/blocking peptide #2
APP12-S	Anti-Human Amyloid precursor protein (APP) antiserum #2
APP13-M	Monoclonal Anti-Human Amyloid precursor protein (APP) ab #3
APP14-P	Human Amyloid precursor protein (APP) Control/blocking peptide # 4
SAA11-A	Anti-human Serum Amyloid A (SAA) antiserum
SAA11-C	Purified Human Serum amyloid A (SAA) Protein control for WB
SAA12-M	Monoclonal Anti-human Serum Amyloid A (SAA) IgG, pure
SAA15-N	Human Serum Amyloid A (SAA) protein, pure >95%
SAP11-C	Purified Human Serum amyloid P (SAP) Protein control for WB
SAP12-RS	Mouse Serum Amyloid P Component (SAP) Reference serum
SAP13-M	Monoclonal Anti-human Serum Amyloid P Component (SAP) IgG # 3, aff pure
SAP15-N-100	Purified Human Serum Amyloid P Component (SAP) protein

BAM422-P-1000

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India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com