



Product Data Sheet

Product Name: β -Amyloid (1-40)
Catalog Number: AS-24235 (0.5 mg) Lot Number: See label on vial
AS-24236 (1 mg)
AS-24236-5 (5 mg)

Sequence: H-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-OH (3-letter code)
DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV (1-letter code)

Molecular Weight: 4329.9

% Peak Area by HPLC: ≥ 95

Appearance: Lyophilized white powder

Peptide Reconstitution: Use 1.0% NH₄OH as the solvent, followed by buffer (i.e. 1XPBS). Add 1.0% NH₄OH directly to the lyophilized peptide powder (add 35-40 μ L to 0.5 mg peptide or 70-80 μ L to 1 mg peptide). The peptide cannot be stored long term in 1.0% NH₄OH, and it is therefore important to immediately dilute this solution with 1X PBS or other buffer to a concentration of approximately 1mg/mL or less. Gently vortex to mix.

Storage: Peptide is shipped at ambient temperature. Upon receipt, store lyophilized powder at -20°C or lower. Reconstituted peptide should be aliquoted into several freezer vials and stored at -20°C or lower. Do not freeze thaw.

Description: β -Amyloid (1-40) together with β -Amyloid (1-42) are two major C-terminal variants of the β -Amyloid protein constituting the majority of β -Amyloids. These undergo post-secretory aggregation and deposition in the Alzheimer's disease brain. Ref: Nagele, R. et al. *Neurosci.* **110**, 199 (2002); Garzon-Rodriguez, W. et al. *J. Biol. Chem.* **272**, 21037 (1997).

Additional Information: Listed below are relevant information that may provide a guideline on how to use this product. End users will have to adapt to their own specific applications.

A β peptide (A β 1-40) was purchased from AnaSpec (San Jose, CA, USA). A β (1-40) was prepared as a 0.5 mM (1 mg/460 μ L) stock solution in milli-Q water and filtered through a 0.22 μ m filter (Millipore, USA). The solution was held at 4 $^{\circ}\text{C}$ for 60 h and then incubated at 37 $^{\circ}\text{C}$ for 8 h with gentle mixing every 2 h to accelerate aggregation. After 6 aggregation, the solution was separated into aliquots (10 μ L) in sterile Eppendorf tubes and stored at -20°C . [Ho, CC. et al. *Food Chem* **114**, 246 \(2008\).](#)

A β (1-16), A β (1-28), A β (17-40), A β (1-40) peptides were obtained from AnaSpec Inc. (CA, USA, purity index $> 95\%$). Aliquots of A β -peptides were dissolved in a 10 mM N-ethylmorpholine (NEMO) buffer, which was proved not to interfere with metal binding. We obtained a final 0.5-1 mM peptide concentration at pH=7. [Minicozzi, V. et al. *J Biol Chem* **10.1074/jbc.M707109200** \(2008\).](#)

A β (1-40) peptide was obtained from AnaSpec (San Jose, CA, USA). Lyophilized A β (1-40) peptide was stored desiccated at -20°C until reconstitution in 50 mmol/L NaOH at a

concentration of 2 mg/mL to minimize the formation of small aggregates. Pre-existing aggregates were removed by SEC on a Superdex 75 HR10/30 column (GE Healthcare, Piscataway, NJ, USA) equilibrated in 40 mmol/L Tris-HCl buffer (pH 8.0) and pre-treated with 1 mg BSA to reduce non-specific binding of A β (1-40) to the resin. [Gonzales-Velasquez, FJ. et al. *J Neurochem* 10.1111/j.1471-4159.2007.04988.x \(2007\).](#)

Samples of 1 mg of A β (1-40) powder (purchased from AnaSpec, Inc.) were dissolved in 0.2 ml of trifluoroacetic acid and gently stirred at 5 °C for 3 h to completely dissolve associated peptides. [Carrotta, R. et al. *J Biol Chem* 280, 30001 \(2005\).](#)

A β (1-40) was purchased from AnaSpec (San Jose, CA). Lyophilized A β (1-40) was solubilized at a concentration of 2.8mM using prefiltered 8M urea, pH 10. After 10 min, samples were diluted to 140 mM A β into filtered PBSA. [Kim, JR. et al. *Biophys J* 86, 3194 \(2004\).](#)

Published Citations:

- [Dillen, L. et al. *Bioanalysis* 3, 45 \(2011\).](#)
- [Hoi, C. et al. *Phytother Res* 24, 10 \(2010\).](#)
- [Keshet, B. et al. *Biotech Bioengineer* 106, 333 \(2010\).](#)
- [Vargas, T. et al. *J Biomed Biotech* 10.1155/2010/805405 \(2010\).](#)
- [Davis, T.J. et al. *Mol Pharmacol* 10.1124/mol.109.055301 \(2009\).](#)
- [Liu, L. et al. *PEDS* 22, 479 \(2009\).](#)
- [Liu, L. et al. *Protein Eng Des Sel* 22, 479 \(2009\).](#)
- [Muresan, V. et al. *J Neurosci* 29, 3565 \(2009\).](#)
- [Andras, IE. et al. *Mol Pharmacol* 10.1124/mol.107.042028 \(2008\).](#)
- [Ho, CC. et al. *Food Chem* 114, 246 \(2008\).](#)
- [Minicozzi, V. et al. *J Biol Chem* 10.1074/jbc.M707109200 \(2008\).](#)
- [Gonzales-Velasquez, FJ. et al. *J Neurochem* 10.1111/j.1471-4159.2007.04988.x \(2007\).](#)
- [Guo, J-P. et al. *Proc Natl Acad Sci* 103, 1953 \(2006\).](#)
- [Jacobsen, JS. et al. *Proc Natl Acad Sci* 103, 5161 \(2006\).](#)
- [Carrotta, R. et al. *J Biol Chem* 280, 30001 \(2005\).](#)
- [Osada, Y. et al. *J Biol Chem* 280, 8596 \(2005\).](#)
- [Boros, S. et al. *FEBS Lett* 576, 57 \(2004\).](#)
- [Ege, C. et al. *Biophys J* 87, 1732 \(2004\).](#)
- [Kim, JR. et al. *Biophys J* 86, 3194 \(2004\).](#)
- [Watanabi, N. et al. *FASEB J* 18, 1013 \(2004\).](#)
- [Kim, JR. et al. *J Biol Chem* 278, 40730 \(2003\).](#)
- [Ji, SR. et al. *J Biol Chem* 277, 6273 \(2002\).](#)
- [Nakagami, Y. et al. *Eur J Pharma* 457, 11 \(2002\).](#)
- [Kajkowski, EM. et al. *J Biol Chem* 276, 18748 \(2001\).](#)
- [Pallitto, MM. et al. *Biophys J* 8, 185 \(2001\).](#)
- [Liang, JJN. *FEBS Lett* 484, 98 \(2000\).](#)
- [Satoh, K. et al. *Neurosci Lett* 283, 221 \(2000\).](#)
- [Stege, GJJ. et al. *BBRC* 262, 152 \(1999\).](#)
- [Bradt, BM. et al. *J Exp Med* 188, 431 \(1998\).](#)

For Research Use Only