Product Data Sheet

Product Name: β-Amyloid (1-40)

Catalog Number: AS-24235 (0.5 mg)
AS-24236 (1 mg)
AS-24236-5 (5 mg)

Lot Number: See label on vial

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 µl to 0.5 mg peptide or 70-80 µl 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.*

Aβ peptide (Aβ1-40) was purchased from AnaSpec (San Jose, CA, USA). Aβ (1-40) was prepared as a 0.5 mM (1 mg/460 µL) stock solution in milli-Q water and filtered through a 0.22 µm filter (Millipore, USA). The solution was held at 4 °C for 60 h and then incubated at 37 °C for 8 h with gentle mixing every 2 h to accelerate aggregation. After 6 aggregation, the solution was separated into aliquots (10 µl) in sterile Eppendorf tubes and stored at -20 °C. Ho, CC. et al. *Food Chem* **114**, 246 (2008).

Aβ (1-16), Aβ (1-28), Aβ (17-40), Aβ (1-40) peptides were obtained from AnaSpec Inc. (CA, USA, purity index > 95%). Aliquots of Aβ-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).

Aβ (1-40) peptide was obtained from AnaSpec (San Jose, CA, USA). Lyophilized Aβ (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 Aβ (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 Aβ (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).

Aβ (1–40) was purchased from AnaSpec (San Jose, CA). Lyophilized Aβ (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 Aβ into filtered PBSA. Kim, JR. et al. *Biophys J* **86**, 3194 (2004).

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