

DATA SHEET

Product Name: BioPure™ Amyloid beta 42-1, (A β 42-1), Recombinant

Catalog #: AA-003

Description: Beta amyloid (42-1) is the reverse of beta amyloid (1-42), the latter is a member of beta amyloid-peptides, which are involved in the amyloid beta-peptide (A beta)-associated free radical oxidative stress model for neuronal death in Alzheimer's disease (AD) brain.

Recombinant A β 42 has reproducibly been shown to have higher *in vitro* toxicity and aggregate significantly faster than synthetically prepared A β 42 due to the absence of (n-1) deletion products and racemized amino acids that are characteristic of chemical synthesis^{1,2}

Sequence: AIVVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGSDHRFEAD

Counter Ion: Ammonium Bicarbonate

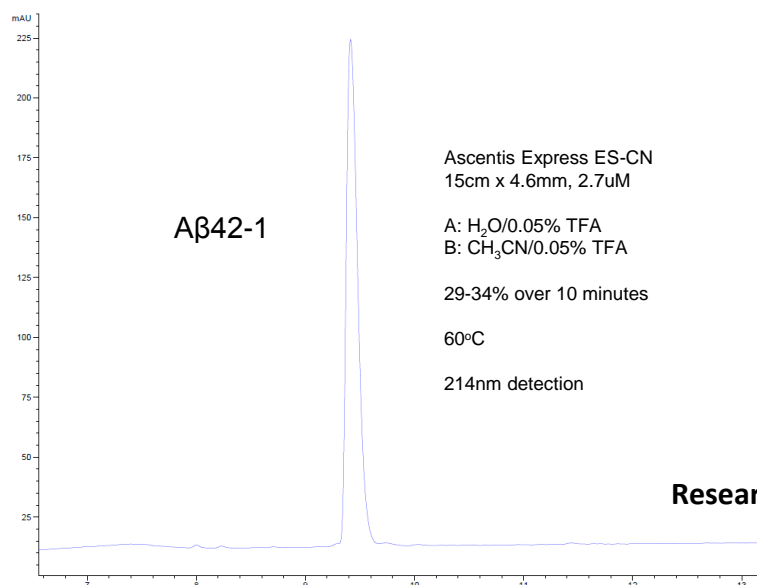
Source: Recombinant peptide expressed in *E.coli*, processed by proprietary BioPure method; HPLC purified

Peptide Reconstitution: Resuspend lyophilized peptide in 1% NH₄OH or 10 mM NaOH to a concentration of 1 mg/ml. After the material has visibly gone into solution, sonicate for 1 minute to disrupt aggregates. Because the peptide cannot be stored long term in this solution, dilute with 1X PBS or to the desired concentration for assay and/or storage.

Storage: Peptide is shipped at ambient temperature. Store lyophilized or reconstituted peptide at -20°C or lower. Avoid freeze thaw cycles.

Characterization:

Molecular Weight: 4514.1 Da **% Peak by HPLC:** >99% **Peptide Content:** >90.0%

**References**

1. Bolder SG, Sagis LM, Venema P & van der Linden E (2007) Thioflavin T and birefringence assays to determine the conversion of proteins into fibrils. *Langmuir* 23, 4144–4147.
2. Finder, V.H., Vodopivec, I., Nitsch, R.M., Glockshuber, R. (2007). The Recombinant Amyloid- β Peptide A β 1–42 Aggregates Faster and Is More Neurotoxic than Synthetic A β 1–42. *J. Mol. Biol.* 396, 9-18.

Research Use Only – Not for Use in Humans