

# PRODUCT INFORMATION



## Amyloid- $\beta$ (1-42) Peptide (trifluoroacetate salt)

Item No. 20574

**Formal Name:** L- $\alpha$ -aspartyl-L-alanyl-L- $\alpha$ -glutamyl-L-phenylalanyl-L-arginyl-L-histidyl-L- $\alpha$ -aspartyl-L-serylglycyl-L-tyrosyl-L- $\alpha$ -glutamyl-L-valyl-L-histidyl-L-histidyl-L-glutamyl-L-lysyl-L-leucyl-L-valyl-L-phenylalanyl-L-phenylalanyl-L-alanyl-L- $\alpha$ -glutamyl-L- $\alpha$ -aspartyl-L-valylglycyl-L-seryl-L-asparaginyll-L-lysylglycyl-L-alanyl-L-isoleucyl-L-isoleucylglycyl-L-leucyl-L-methionyl-L-valylglycylglycyl-L-valyl-L-valyl-L-isoleucyl-L-alanine, trifluoroacetate salt

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—Ile—Ala—OH

• XCF<sub>3</sub>COOH

**Synonyms:** A $\beta$  (1-42), A $\beta$ 42  
**MF:** C<sub>203</sub>H<sub>311</sub>N<sub>55</sub>O<sub>60</sub>S • XCF<sub>3</sub>COOH  
**FW:** 4,514.0  
**Purity:**  $\geq$ 95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Amyloid- $\beta$  (1-42) (A $\beta$ 42) peptide (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the A $\beta$ 42 peptide (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. A $\beta$ 42 peptide (trifluoroacetate salt) is soluble in the organic solvent DMSO.

### Description

Amyloid- $\beta$  (1-42) (A $\beta$ 42) is a neurotoxic 42-amino acid protein fragment found in amyloid plaques in postmortem cerebral cortex from patients with Alzheimer's disease.<sup>1-3</sup> Aggregation of A $\beta$ 42 results in the formation of neurotoxic fibrils or globular oligomers.<sup>1</sup> A $\beta$ 42 accumulates in the brain of many transgenic mouse models of Alzheimer's disease and, in many models, the onset of amyloid deposition positively correlates with deficits in spatial learning and memory.<sup>4</sup>

### References

1. Wolfe, M.S. Therapeutic strategies for Alzheimer's disease. *Nat. Rev. Drug Discov.* **1(11)**, 859-866 (2002).
2. Iwatsubo, T., Odaka, A., Suzuki, N., et al. Visualization of A $\beta$ 42(43) and A $\beta$ 40 in senile plaques with end-specific A $\beta$  monoclonals: Evidence that an initially deposited species is A $\beta$ 42(43). *Neuron* **13(1)**, 45-53 (1994).
3. Hardy, J.A. and Higgins, G.A. Alzheimer's disease: The amyloid cascade hypothesis. *Science* **256(5054)**, 184-185 (1992).
4. Jankowsky, J.L. and Zheng, H. Practical considerations for choosing a mouse model of Alzheimer's disease. *Mol. Neurodegener.* **12(1)**, 89 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/06/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM