

PRODUCT INFORMATION



Amyloid- β (25-35) Peptide (human) (trifluoroacetate salt)

Item No. 24155

Formal Name: glycyl-L-seryl-L-asparaginyl-L-lysylglycyl-L-alanyl-L-isoleucyl-L-isoleucylglycyl-L-leucyl-L-methionine, trifluoroacetate salt

Synonym: A β (25-35)

MF: C₄₅H₈₁N₁₃O₁₄S • XCF₃COOH

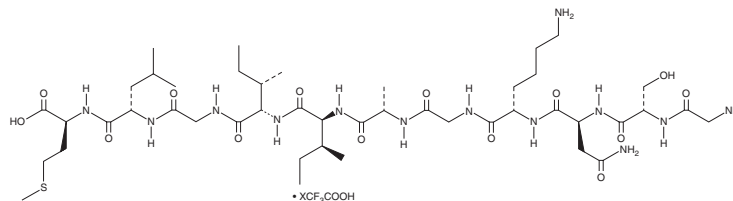
FW: 1,060.3

Purity: \geq 95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: \geq 2 years



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

Laboratory Procedures

Amyloid- β (25-35) (A β (25-35)) peptide (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the A β (25-35) peptide (human) (trifluoroacetate salt) in water. The solubility of A β (25-35) peptide (human) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

A β (25-35) is an 11-residue fragment of the A β protein that retains the physical and biological characteristics of the full length peptide.¹ It forms fibrils that react to thioflavin T and Congo red and are organized in a cross- β arrangement of β -strands similar to A β (1-40) (Item No. 21617) and A β (1-42) (Item No. 20574) fibrils.^{2,3} Aggregated A β (25-35) decreases the viability of rat adrenal PC12 cells.² It also decreases the viability of primary rat cortical neurons at concentrations ranging from 1 nM to 30 μ M.⁴ *In vivo*, intracerebral injection of A β (25-35) (20 nmol) in rats induces lesions of neuronal and tissue loss.⁵ Aggregated A β (25-35) administered intracerebroventricularly to rats induces learning and memory impairments in the Y-maze, novel object recognition, and contextual fear conditioning tests.⁶

References

1. Kaminsky, Y.G., Marlatt, M.W., Smith, M.A., *et al.* Subcellular and metabolic examination of amyloid- β peptides in Alzheimer disease pathogenesis: Evidence for A β ₂₅₋₃₅. *Exp. Neurol.* **221(1)**, 26-37 (2010).
2. Hughes, E., Burke, R.M., and Doig, A.J. Inhibition of toxicity in the β -amyloid peptide fragment β -(25-35) using N-methylated derivatives. *J. Biol. Chem.* **275(33)**, 25109-25115 (2000).
3. Wei, G., Jewett, A.I., and Shea, J.E. Structural diversity of dimers of the Alzheimer amyloid- β (25-35) peptide and polymorphism of the resulting fibrils. *Phys. Chem. Chem. Phys.* **12(14)**, 3622-3629 (2010).
4. Wang, Y., Liu, L., Hu, W., *et al.* Mechanism of soluble beta-amyloid 25-35 neurotoxicity in primary cultured rat cortical neurons. *Neurosci. Lett.* **618**, 72-76 (2016).
5. Rush, D.K., Aschmies, S., and Merriman, M.C. Intracerebral β -amyloid(25-35) produces tissue damage: Is it neurotoxic? *Neurobiol. Aging* **13(5)**, 591-594 (1992).
6. Tsunekawa, H., Noda, Y., Mouri, A., *et al.* Synergistic effects of selegiline and donepezil on cognitive impairment induced by amyloid beta (25-35). *Behav. Brain Res.* **190(2)**, 224-232 (2008).

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.

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