

PRODUCT INFORMATION



Amyloid- β (17-42) Peptide (human) (trifluoroacetate salt)

Item No. 27415

Formal Name:	L-leucyl-L-valyl-L-phenylalanyl-L-phenylalanyl-L-alanyl-L- α -glutamyl-L- α -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—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
Synonyms:	A β (17-42), LVFFAEDVGSNKGAIIGLMVGGVVIA	• XCF ₃ COOH
MF:	C ₁₁₉ H ₁₉₄ N ₂₈ O ₃₃ S • XCF ₃ COOH	
FW:	2,577.1	
Purity:	≥95%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

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

Laboratory Procedures

Amyloid- β (A β) (17-42) peptide (human) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the A β (17-42) peptide (human) (trifluoroacetate salt) in the solvent of choice which should be purged with an inert gas. A β (17-42) peptide (human) (trifluoroacetate salt) is soluble in the organic solvent formic acid at a concentration of approximately 1 mg/ml.

Description

A β (17-42) is a 26-residue fragment of the A β protein that is formed *via* post-translational processing of amyloid precursor protein (APP) by α - and γ -secretases.¹ It has been found in postmortem cerebral cortex from patients with Alzheimer's disease that have diffuse amyloid plaques and in cerebellar preamyloid lesions in patients with Down's syndrome.^{2,3} *In vitro*, A β (17-42) forms amorphous aggregates that bind less thioflavin T than A β (1-40) (Item No. 21617) and A β (1-42) (Item No. 20574).³ It is cytotoxic to SH-SY5Y and IMR-32 cells in a concentration-dependent manner and induces cleavage of caspase-3 and poly(ADP-ribose) polymerase (PARP) in SH-SY5Y cells when used at a concentration of 20 μ M.¹

References

1. Wei, W., Norton, D.D., Wang, X., *et al.* A β 17-42 in Alzheimer's disease activates JNK and caspase-8 leading to neuronal apoptosis. *Brain* **125**(Pt 9), 2036-2043 (2002).
2. Gowing, E., Roher, A.E., Woods, A.S., *et al.* Chemical characterization of A β 17-42 peptide, a component of diffuse amyloid deposits of Alzheimer disease. *J. Biol. Chem.* **269**(15), 10987-10990 (1994).
3. Lalowski, M., Golabek, A., Lemere, C.A., *et al.* The "nonamyloidogenic" p3 fragment (amyloid β 17-42) is a major constituent of Down's syndrome cerebellar preamyloid. *J. Biol. Chem.* **271**(52), 33623-33631 (1996).

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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