

PRODUCT INFORMATION



Citrullinated Amyloid- β (1-40) Peptide (human)

Item No. 30985

Overview and Properties

Contents:	This vial contains 1,000 μ g of lyophilized peptide.
Synonyms:	Citrullinated A β (1-40), Citrullinated A β 40, R5C ₁₋₄₀
Peptide Sequence:	DAEFXHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV (X=Citrulline)
Uniprot No.:	P05067
Molecular Weight:	4,329.8 kda
Form:	Solid
Storage:	-20°C (as supplied)
Stability:	\geq 3 years

Description

Amyloid- β (1-40) (A β 40) peptide is a 40-amino acid protein fragment of A β 42 (Item No. 20574), a neurotoxic peptide found in amyloid plaques in postmortem cerebral cortex from patients with Alzheimer's disease.^{1,2} A β 40 is more abundant, less neurotoxic, and does not form oligomers as easily as A β 42.^{3,4} Citrullinated A β 40 is a modified form of A β 40 (Item No. 21617) that is citrullinated at arginine 5.⁵ It exhibits increased transient formation of soluble oligomers and insoluble aggregates composed of distorted parallel β -sheets compared with unmodified A β 40, which forms fibrils composed of parallel β -sheets.

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 β 42(43) and A β 40 in senile plaques with end-specific A β monoclonals: Evidence that an initially deposited species is A β 42(43). *Neuron* **13(1)**, 45-53 (1994).
3. Bitan, G., Kirkitadze, M.D., Lomakin, A., *et al.* Amyloid β -protein (A β) assembly: A β 40 and A β 42 oligomerize through distinct pathways. *Proc. Natl. Acad. Sci. USA* **100(1)**, 330-335 (2003).
4. Murphy, M.P. and LeVine, H., III. Alzheimer's disease and the β -amyloid peptide. *J. Alzheim. Dis.* **19(1)**, 311 (2010).
5. Osaki, D. and Hiramatsu, H. Citrullination and deamidation affect aggregation properties of amyloid β -proteins. *Amyloid* **23(4)**, 234-241 (2016).

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, 12/13/2023

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