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DATASHEET

β-Amyloid Peptide (1-42) (human)

Product overview

Name	β-Amyloid Peptide (1-42) (human)
Cat No	HB9805
Description	β-Amyloid (1-42) protein fragment. Implicated in Alzheimer's disease.
Biological description	The β-amyloid (Aβ) 1-42 peptide has been proposed to affect neuronal degeneration and has been implicated in the pathology of Alzheimer's disease.
Biological action	Peptide
Purity	>95%
Net peptide content	≥60%

Solubility & Handling

Storage instructions	-20 °C
Solubility overview	Soluble in 1.0% NH4OH
Handling	Please note that this product is supplied as a lyophilized solid and may be very hard to visualize.

Amyloid beta peptides are prone to aggregation and as such, there are a variety of published methods for handling amyloid beta peptides.


We recommend using NH4OH with this product - you should use 1.0% NH4OH as the solvent followed by buffer (for example 1X PBS).

1. Add 1.0% NH4OH directly to the lyophilized peptide (~70-80 μl for 1 mg of peptide). Do not store the peptide in 1.0% NH4OH.
2. Immediately dilute your solution to a concentration of ~1mg/mL or less with 1X PBS or alternative buffer.
3. Vortex gently to mix (less than 1 minute).

Note: This method may not completely remove pre-aggregates. Vortexing may encourage seeding and further aggregation of the peptide.

Important This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA
Molecular Weight	4514.08
Chemical structure	
Molecular Formula	C ₂₀₃ H ₃₁₁ N ₅₅ O ₆₀ S
Sequence (one letter)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA
CAS Number	107761-42-2
PubChem identifier	71773143
SMILES	CC[C@H](C)[C@@H](C(=O)N[C@@H]([C@@H](C)CC)C(=O)NCC(=O)N[C@@H](CC(C)C)C(=O)N[C@@H](CCSC)C(=O)N[C@@H](C(C)C)C(=O)NCC(=O)NCC(=O)N[C@@H](C(C)C)C(=O)N[C@@H](C(C)C)C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](C)C(=O)NC(=O)[C@H](C)NC(=O)CNC(=O)[C@H](CCCCN)NC(=O)[C@H](CC(=O)N)NC(=O)[C@H](CO)NC(=O)CNC(=O)[C@H](C(C)C)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](C)NC(=O)[C@H](CC1=CC=CC=C1)NC(=O)[C@H](CC2=CC=CC=C2)NC(=O)[C@H](C(C)C)NC(=O)[C@H](CC(C)C)NC(=O)[C@H](CCCCN)NC(=O)[C@H](CCC(=O)N)NC(=O)[C@H](CC3C=NC=N3)NC(=O)[C@H](CC4C=NC=NC4)NC(=O)[C@H](C(C)C)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](CC5=CC=C(C=C5)O)NC(=O)C

InChiKey
MDL number
Appearance
Protein length

NC(=O)[C@H](CO)NC(=O)[C@H](CC(=O)O)NC(=O)[C@H](CC6C=NC=N6)NC(=O)[C@H](CCCNC(=N)N)NC(=O)[C@H](CC7=CC=CC=C7)NC(=O)[C@H](CCC(=O)O)NC(=O)[C@H](C)NC(=O)[C@H](CC(=O)O)N
XPESWQNHKICWDY-QYFPAAMGSA-N
MFCD00163049
Lyophilized White solid
42

References

[β-Amyloid: the key peptide in the pathogenesis of Alzheimer's disease](#)

Sun X *et al* (2015) *Front Pharmacol* 6

PubMedID [26483691](#)

[Amyloid-peptide β 42 Enhances the Oligomerization and Neurotoxicity of apoE4: The C-terminal Residues Leu279, Lys282 and Gln284 Modulate the Structural and Functional Properties of apoE4](#)

Dafnis I *et al* (2018) *Neuroscience* 394

PubMedID [30367942](#)
