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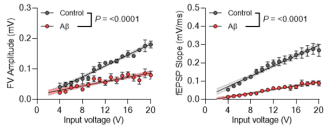
DATASHEET

β-Amyloid Peptide (1-42) (human)

Product overview

Name	β-Amyloid Peptide (1-42) (human)
Cat No	HB9805
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%
Description	β-Amyloid (1-42) protein fragment. Implicated in Alzheimer's disease.

Images



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 1mg of peptide). Do not store the peptide in 1.0% NH4OH. 2. Immediately dilute your solution to a concentration of ~1mg/mL or less your buffer (e.g 1X PBS, water or an 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

UniProt ID	P05067
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)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=N4)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)CNC(=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
InChiKey	XPESWQNHKICWDY-QYFPAAMGSA-N
MDL number	MFCD00163049
Appearance	Lyophilized White solid
Protein length	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