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DATASHEET

β-Amyloid Peptide (1-40) (human)

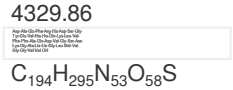
Product overview

Name	β-Amyloid Peptide (1-40) (human)
Cat No	HB8758
Biological description	The β-Amyloid (1-40) peptide is one of the two main amyloid-β peptides implicated in Alzheimer's disease.
Alternative names	Aβ1-40, Aβ40
Biological action	Peptide
Purity	>95%
Description	β-Amyloid (1-40) protein fragment.

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 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

UniProt ID	P05067
Chemical name	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV
Molecular Weight	4329.86
Chemical structure	
Molecular Formula	$C_{194}H_{295}N_{53}O_{58}S$
Sequence (one letter)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV
CAS Number	131438-79-4
PubChem identifier	131954545
SMILES	CCC(C)C(C(=O)NC(C(C)CC)C(=O)NCC(=O)NC(CC(C)C)C(=O)NC(CCSC)C(=O)NC(C(C)C)C(=O)NCC(=O)NCC(=O)NC(C(C)C)C(=O)NC(C(C)C)C(=O)O)NC(=O)C(C)NC(=O)CNC(=O)C(CCCCN)NC(=O)C(CC(=O)N)NC(=O)C(CO)NC(=O)CNC(=O)C(C(C)C)NC(=O)C(CC(=O)O)NC(=O)C(CCC(=O)O)NC(=O)C(C)NC(=O)C(CC1=CC=CC=C1)NC(=O)C(CC2=CC=CC=C2)NC(=O)C(C(C)C)NC(=O)C(CC(C)C)NC(=O)C(CCCCN)NC(=O)C(CCC(=O)N)NC(=O)C(CC3=CNC=N3)NC(=O)C(CC4=CNC=N4)NC(=O)C(C(C)C)NC(=O)C(CCC(=O)O)NC(=O)C(CC5=CC=C(C=C5)O)NC(=O)CNC(=O)C(CO)NC(=O)C(CC(=O)O)NC(=O)C(CC6=CNC=N6)NC(=O)C(CCCNC(=N)N)NC(=O)C(CC7=CC=CC=C7)NC(

	=O)C(CCC(=O)O)NC(=O)C(C)NC(=O)C(CC(=O)O)N
InChiKey	FEWOUVRMGWFWIH-UHFFFAOYSA-N
MDL number	MFCD00130509
Appearance	Lyophilized white powder
Protein length	40

References

Amyloid Beta-peptides 1-40 and 1-42 form oligomers with mixed Î²-sheets

Baldassarre M *et al* (2017) Chem Sci 8(12)
PubMedID 29568473

Plasma amyloid Beta 40/42 ratio predicts cerebral amyloidosis in cognitively normal individuals at risk for Alzheimer's disease

Vergallo A *et al* (2019) Alzheimers Dement 15(6)
PubMedID 31113759

High-precision plasma Beta-amyloid 42/40 predicts current and future brain amyloidosis

Schindler SE *et al* (2019) Neurology doi: 10.1212/WNL.0000000000000808
PubMedID 31371569