

Rev01
Update: Dec,28,2022

DATASHEET

β -Amyloid (1-40)

Cat. No.: RP10004CN

Overview

Synonyms	amyloid peptide; amyloid beta protein; beta amyloid plaques
Description	Beta-amyloid peptide (beta-APP) is a 40-residue peptide implicated in the pathogenesis of Alzheimer's disease (AD) and aged Down's Syndrome, which is promoted by the acquisition of an additional copy of chromosome 21. The peptide is a proteolytic product of the much larger amyloid precursor protein (APP) encoded by a gene on chromosome 21. The peptide comprises a large extracellular N-terminal domain and a short hydrophobic membrane-spanning domain, followed by a short C-terminal region. Beta-APP both precedes and forms part of the transmembrane region.
Cas No	131438-79-4
Sequence	{ASP}{ALA}{GLU}{PHE}{ARG}{HIS}{ASP}{SER}{GLY}{TYR}{GLU}{VAL}{HIS}{HIS}{GLN}{LYS}{LEU}{VAL}{PHE}{PHE}{ALA}{GLU}{ASP}{VAL}{GLY}{SER}{ASN}{LYS}{GLY}{ALA}{ILE}{ILE}{GLY}{LEU}{MET}{VAL}{GLY}{GLY}{VAL}{VAL}
Sequence Shortening	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV
Molecular Formula	C ₁₉₄ H ₂₉₅ N ₅₃ O ₅₈ S ₁
Molecular Weight	4329.82

Properties

Purity	> 95%
Solubility	Insoluble in water, may be dissolved in any buffer of pH >9.
Form	Lyophilized
Storage	Store at -20°C
Note	In culture, beta-amyloid peptide is neurotrophic to undifferentiated hippocampal neurons at low concentrations and neurotoxic to mature neurons at higher concentrations. In differentiated neurons, it causes dendritic and axonal retraction followed by neuronal death.