

Cy7-beta-Amyloid (1-40) [beta-Amyloid (1-40), Cy7-Labeled]

Catalog Number: 81081

Unit Size: 100 ug

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	N/A
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	756 nm
Emission Wavelength	779 nm

Applications

Cy7-beta-Amyloid (1-40) is a Cy7-labeled peptide used extensively in neuroscience research, particularly in studies related to Alzheimer's disease. Cy7 tag is conjugated to the N-termini of beta-Amyloid (1-42) peptide with sequence: Cy7-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-OH (DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV). It has a near-IR fluorescence. The spectral properties of Cy7 label allow researchers to visualize and track the fluorescent peptide in biological systems using the most common settings either in a fluorescence microscope or flow cytometer. AAT Bioquest's Cy7-beta-Amyloid (1-40) material is thoroughly analyzed to ensure its quality by HPLC, electrophoresis and cell functional analysis. It is one of the most abundant forms of amyloid beta and is present at higher physiological concentrations than the 1-42 form. While Aβ1-40 is less prone to forming plaques, it can still have neurotoxic effects at higher concentrations and is involved in vascular amyloid deposits. Aβ1-40 is produced by the cleavage of the amyloid precursor protein (APP) and is one of two major C-terminal variants, along with Aβ1-42. It is found in the extracellular plaques in the brains of Alzheimer's patients and is also the predominant form in vascular amyloid deposits. The blood-brain barrier removes Aβ1-40 through a transport system that is influenced by factors like age and apolipoprotein E and may be impaired in Alzheimer's disease.