

# FITC-beta-Amyloid (1-40) [beta-Amyloid (1-40), FITC-Labeled]

Catalog Number: 81057

Unit Size: 100 ug

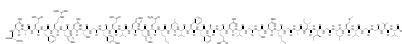
## Product Details

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

## Chemical Properties

|                  |         |
|------------------|---------|
| Appearance       | Solid   |
| Molecular Weight | 5400.04 |
| Soluble In       | DMSO    |

Chemical Structure



## Spectral Properties

|                       |        |
|-----------------------|--------|
| Excitation Wavelength | 491 nm |
| Emission Wavelength   | 516 nm |

## Applications

FITC-beta-Amyloid (1-40) is a FITC-labeled peptide used extensively in neuroscience research, particularly in studies related to Alzheimer's disease. FITC tag is conjugated to the N-termini of beta-Amyloid (1-42) peptide with sequence: FITC-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 green fluorescence. The spectral properties of FITC 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 FITC-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.