

β -Amyloid (1-40), FAM-labeled

Chemical Properties

CAS No. : 1678416-08-4

Formula:

Molecular Weight:

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV

Biological Description

Description	β -Amyloid (1-40), FAM-labeled, is a β -Amyloid (1-40) peptide tagged with a FAM fluorescent label, exhibiting an excitation wavelength (λ ex) of 492 nm and an emission wavelength (λ em) of 518 nm.
Targets(IC50)	Beta Amyloid
In vitro	The transport of fluorescently labeled A β 42, both FAM-labeled and Fluor 488-labeled Human β -Amyloid (1-42), as well as scrambled A β 42 (FAM-labeled scrambled β -Amyloid (1-42)), across an endothelial monolayer, is analyzed in an in vitro blood-brain barrier (BBB) model, utilizing transendothelial electrical resistance (TEER) to monitor changes over time (specifically over 120 minutes, with or without the presence of A β 24). It's observed that the presence of Human β -Amyloid (1-24) at a concentration of 1 μ M results in the retention of H-A β 42, which impairs its efflux from the BBB, thus hindering the molecule's effective clearance. When FAM-labeled or Fluor 488-conjugated H-A β 42 is applied to the apical side of the cell inserts, it demonstrates successful cross-BBB migration, unlike the FAM-labeled scrambled β -Amyloid (1-42), which does not efficiently cross.

Reference

L M Jungbauer, et al. Preparation of fluorescently-labeled amyloid-beta peptide assemblies: the effect of fluorophore conjugation on structure and function. J Mol Recognit. Sep-Oct 2009;22(5):403-13.

Sonia Mazzitelli, et al. Amyloid- β 1-24 C-terminal truncated fragment promotes amyloid- β 1-42 aggregate formation in the healthy brain. Acta Neuropathol Commun. 2016 Oct 10;4(1):110.

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