

β-Amyloid (1-40), FAM-labeled TFA

Cat. No.:	HY-P2550A
Molecular Formula:	C ₂₁₇ H ₃₀₆ N ₅₃ F ₃ O ₆₆ S
Molecular Weight:	4802.22
Target:	Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Sealed storage, away from moisture and light, under nitrogen
	Powder -80°C 2 years
	-20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

BIOLOGICAL ACTIVITY

Description	β-Amyloid (1-40), FAM-labeled TFA is a FAM fluorescently-labelled β-Amyloid (1-40) peptide (λ _{ex} = 492 nm and λ _{em} = 518 nm).
In Vitro	<p>Apical-to-basolateral exchange across endothelial monolayer of fluorescent Aβ42 (FAM-labeled Human β-Amyloid (1-42) and Fluor 488-labeled β-Amyloid (1-42)) or scramble Aβ42 (FAM-labeled scrambled β-Amyloid (1-42)) (1-100 μM) is monitored in transendothelial electrical resistance (TEER) during cell monolayer's formation over time (over 120 min in presence or absence of Aβ24). Human β-Amyloid (1-24) (1 μM) results in H-Aβ42 retention, thus reducing its efflux through the BBB and therefore preventing an efficient mechanism of Aβ42 clearance^[1].</p> <p>The in vitro BBB model is used to investigate the passage of FAM-labeled or 488-conjugated H-Aβ42 across the endothelial cell monolayer. The addition of fluorescently labeled H-Aβ42 (FAM-labeled Human β-Amyloid (1-42) or Fluor 488-labeled β-Amyloid (1-42)) to the apical side of cell inserts results in effective BBB crossing, FAM-labeled scrambled β-Amyloid (1-42) is not efficiently transcytosed.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. 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.
- [2]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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