AC 187 TFA

Cat. No.: HY-P1393A

Molecular Formula: $C_{129}H_{206}F_3N_{37}O_{42}$

Molecular Weight: 3004.27

Sequence: Ac-Val-Leu-Gly-Lys-Leu-Ser-Gln-Glu-Leu-His-Lys-Leu-Gln-Thr-Tyr-Pro-Arg-Thr-Asn-Thr-Gly-Ser-Asn-Thr-Tyr-NH2

Ac-VLGKLSQELHKLQTYPRTNTGSNTY-NH_2 (TFA salt)

Sequence Shortening: Ac-VLGKLSQELHKLQTYPRTNTGSNTY-NH2

Target: Amylin Receptor

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (33.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.3329 mL	1.6643 mL	3.3286 mL
	5 mM	0.0666 mL	0.3329 mL	0.6657 mL
	10 mM	0.0333 mL	0.1664 mL	0.3329 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (33.29 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

AC 187 TFA is a potent and orally active amylin receptor antagonist with an IC_{50} of 0.48 nM and a K_i of 0.275 nM. AC 187 TFA shows more selective for amylin receptor than calcitonin and CGRP receptors. AC 187 TFA has neuroprotective effects[1][2].

IC_{50} & Target

IC50: 0.48 nM (amylin receptor)

In Vitro

AC 187 blocks amyloidβ protein (Aβ)-induced neurotoxicity. Treatment of cultures with AC 187 before exposure to Aβ results in significantly improved neuronal survival[1].

AC187 attenuates the activation of initiator and effector caspases that mediate Aβ-induced apoptotic cell death[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	AC 187 (30 mg/mL) increases glucagon concentration, accelerates gastric emptying of liquids, and results in an exaggerated post-challenge glycemia in hyperinsulinemic clamps in Sprague-Dawley (HSD) rats[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jack H Jhamandas, et al. Antagonist of the amylin receptor blocks beta-amyloid toxicity in rat cholinergic basal forebrain neurons. J Neurosci. 2004 Jun 16;24(24):5579-84.

[2]. Bronislava R Gedulin, et al. Role of endogenous amylin in glucagon secretion and gastric emptying in rats demonstrated with the selective antagonist, AC187. Regul Pept. 2006 Dec 10;137(3):121-7.

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