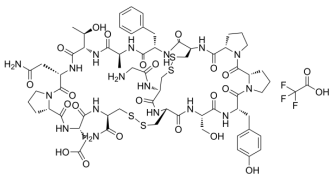
α-Conotoxin AuIB TFA

Cat. No.: HY-P1269A

Molecular Formula: $C_{67}H_{90}F_3N_{17}O_{23}S_4$

Molecular Weight: 1686.79

Sequence: Gly-Cys-Cys-Ser-Tyr-Pro-Pro-Cys-Phe-Ala-Thr-Asn-Pro-Asp-Cys-NH2 (Disulfide bridge: Cys2-Cys8;Cys3-Cys15)



Sequence Shortening: GCCSYPPCFATNPDC-NH2 (Disulfide bridge:Cys2-Cys8;Cys3-Cys15)

Target: nAChR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

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 : 110 mg/mL (65.21 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.5928 mL	2.9642 mL	5.9284 mL
	5 mM	0.1186 mL	0.5928 mL	1.1857 mL
	10 mM	0.0593 mL	0.2964 mL	0.5928 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 (59.28 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

α-Conotoxin AuIB TFA, a potent and selective α3β4 nicotinic acetylcholine receptor (nAChR) antagonist, blocks α3β4 nAChRs expressed in Xenopus oocytes with an IC_{50} of 0.75 μM[1].

IC_{50} & Target

IC50: 0.75 μM (α3β4 nAChR; in Xenopus oocytes)[1]

In Vitro

α-Conotoxin AuIB blocks the α3β4 receptor with >100-fold higher potency than other receptor subunit combinations, including α2β2, α2β4, α3β2, α4β2, α4β4, and α1β1γδ[1].

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

REFERENCES

[1]. Siqin Luo, et al. α-Conotoxin AuIB Selectively Blocks α3β4 Nicotinic Acetylcholine Receptors and Nicotine-Evoked Norepinephrine Release.Journal of Neuroscience. 1998 Nov 1, 18 (21): 8571-8579.

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