

α -Conotoxin MII

Cat. No.:	HY-P1365
CAS No.:	175735-93-0
Molecular Formula:	C ₆₇ H ₁₀₃ N ₂₃ O ₂₂ S ₄
Molecular Weight:	1710.94
Sequence:	Gly-Cys-Cys-Ser-Asn-Pro-Val-Cys-His-Leu-Glu-His-Ser-Asn-Leu-Cys-NH ₂ (Disulfide bridge:Cys2-Cys8;Cys3-Cys16)
Sequence Shortening:	GCCSNPVCHLEHSNLC-NH ₂ (Disulfide bridge:Cys2-Cys8;Cys3-Cys16)
Target:	nAChR
Pathway:	Membrane Transporter/Ion Channel; 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	α -Conotoxin MII (α -CTxMII), a 16-amino acid peptide from the venom of the marine snail <i>Conus magus</i> , potently blocks nicotinic acetylcholine receptors (nAChRs) composed of α 3 β 2 subunits, with an IC ₅₀ of 0.5 nM. α -Conotoxin MII (α -CTxMII) potently blocks β 3-containing neuronal nicotinic receptors ^{[1][2][3]} .
IC ₅₀ & Target	IC ₅₀ : 0.5 nM (α 3 β 2) ^[1] .
In Vitro	α -Conotoxin MII (0.5-3.5 nM) blocks ACh responses in oocytes expressing α 3 β 2 nicotinic acetylcholine receptors ^{[1][2]} . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. G E Cartier, et al. A New Alpha-Conotoxin Which Targets alpha3beta2 Nicotinic Acetylcholine Receptors. J Biol Chem. 1996 Mar 29;271(13):7522-8.
- [2]. S C Harvey, et al. Determinants of Specificity for Alpha-Conotoxin MII on alpha3beta2 Neuronal Nicotinic Receptors. Mol Pharmacol. 1997 Feb;51(2):336-42.
- [3]. J M McIntosh, et al. Conus Peptides: Novel Probes for Nicotinic Acetylcholine Receptor Structure and Function. Eur J Pharmacol. 2000 Mar 30;393(1-3):205-8.

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

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