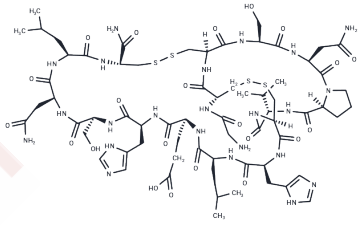
Data Sheet (Cat.No.TP2063)

TargetMol

α-Conotoxin MII

Chemical Properties



CAS No. : 175735-93-0

Formula: C67H103N23O22S4

Molecular Weight: 1710.94

Storage: Keep away from moisture,Keep away from direct sunlight,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	α-Conotoxin MII is a highly potent and selective competitive antagonist for α3β2 subunit-containing nicotinic receptors (IC50 = 0.5 - 3.5 nM at α3β2 expressed in Xenopus oocytes). Also potently blocks β3-containing neuronal nicotinic receptors. Displays > 200-fold selectivity for α3β2 over α2β2, α4β2 and α3β4.
Targets(IC50)	AChR

Solubility Information

Solubility	H2O: 1 mg/mL (0.58 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5845 mL	2.9224 mL	5.8447 mL
5 mM	0.1169 mL	0.5845 mL	1.1689 mL
10 mM	0.0584 mL	0.2922 mL	0.5845 mL
50 mM	0.0117 mL	0.0584 mL	0.1169 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Cartier et al (1996) A new α-conotoxin which targets α3β2 nicotinic acetylcholine receptors. J.Biol.Chem. 271 7522 PMID:

Harvey et al (1997) Determinants of specificity for α-conotoxin MII on α3β2 neuronal nicotinic receptors. Mol. Pharmacol. 51 336 PMID:

McIntosh et al (2000) Conus peptides: novel probes for nicotinic acetylcholine receptor structure and function. Eur. J.Pharmacol. 393 205 PMID:

David et al (2010) Biochemical and functional properties of distinct nicotinic acetylcholine receptors in the superior cervical ganglion of mice with targeted deletions of nAChR subunit genes. Eur.J.Neurosci. 31 978 PMID: