Data Sheet (Cat.No.T10226)

TargetMol

Sofiniclin

Chemical Properties

CAS No. :	799279-80-4
Formula:	C10H11Cl2N3
Molecular Weight:	244.12
Storage:	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	Sofiniclin is an nAChR agonist with potential for non-stimulant therapeutic research on attention deficit disorders.
Targets(IC50)	AChR
In vitro	Methods: Radioligand binding assays (^{125}I-α-conotoxin MII, ^{125}I-epibatidine) were used to determine the affinities of Sofiniclin and ABT-089 for the corresponding nicotinic acetylcholine receptor subtypes. Results: : 1.Sofiniclin exhibited superior inhibitory activity against both receptor subtypes compared with ABT-089. 2.The inhibition constant Ki for the binding of ^{125}I-α-conotoxin MII was 1.9 nM. 3.The inhibition constant Ki for the binding of ^{125}I-epibatidine was 1.3 nM [1].
In vivo	Methods: Rhesus monkeys were used as animal models and orally administered with different doses of Sofiniclin. Its improving effect on levodopa-induced dyskinesia (LID) was observed, and the differences in efficacy under varying degrees of nigrostriatal injury were compared. Results: : 1.Compared with the vehicle control group, Sofiniclin (0.001–0.10 mg/kg, oral administration) significantly reduced the LID level in monkeys [1]. 2.Sofiniclin (0.1 mg/kg) failed to alleviate levodopa-induced abnormal involuntary movements (LIDs) in monkeys with severe nigrostriatal injury [2].

Solubility Information

Solubility	DMSO: 28.57 mg/mL (117.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0963 mL	20.4817 mL	40.9635 mL
5 mM	0.8193 mL	4.0963 mL	8.1927 mL
10 mM	0.4096 mL	2.0482 mL	4.0963 mL
50 mM	0.0819 mL	0.4096 mL	0.8193 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

Zhang D, et al. ABT-089 and ABT-894 reduce levodopa-induced dyskinesias in a monkey model of Parkinson's disease. Mov Disord. 2014 Apr;29(4):508-17.
Zhang D, ET AL. α7 nicotinic receptor agonists reduce levodopa-induced dyskinesias with severe nigrostriatal damage. Mov Disord. 2015 Dec;30(14):1901-11.