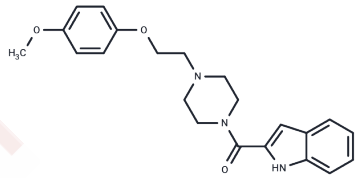
Data Sheet (Cat.No.T8423)

TargetMol

ML417

Chemical Properties



CAS No. : 1386162-69-1

Formula: C22H25N3O3

Molecular Weight: 379.45

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	ML417 is a selective and brain-penetrant agonist of D3 dopamine (EC50: 38 nM).
Targets(IC50)	Arrestin,Dopamine Receptor
In vitro	Molecular modeling suggests that ML417 interacts with the D3R in a unique manner, possibly explaining its remarkable selectivity.?ML417 was also found to protect against neurodegeneration of dopaminergic neurons derived from iPSCs.?Together with promising pharmacokinetics and toxicology profiles, these results suggest that ML417 is a novel and uniquely selective D3R agonist that may serve as both a research tool and a therapeutic lead for the treatment of neuropsychiatric disorders.

Solubility Information

Solubility	DMSO: 5 mg/mL (13.18 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6354 mL	13.177 mL	26.3539 mL
5 mM	0.5271 mL	2.6354 mL	5.2708 mL
10 mM	0.2635 mL	1.3177 mL	2.6354 mL
50 mM	0.0527 mL	0.2635 mL	0.5271 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

Moritz AE, et al. Discovery, Optimization, and Characterization of ML417: A Novel and Highly Selective D3 Dopamine Receptor Agonist. J Med Chem. 2020;63(10):5526-5567.

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