Data Sheet   (Cat.No.T13057)

T-448
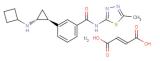
Chemical Properties

CAS No.:	1597426-53-3
Formula：	C17H20N4OS.1/2C4H4O4
Molecular Weight：	386.5
Appearance:	N/A
Storage：	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	T-448 is a specific, orally active and irreversible lysine-specific demethylase 1 (LSD1, an H3K4 demethylase) inhibitor(IC50 of 22 nM).
Targets(IC$_{50}$)	LSD1: 22 nM
In vitro	The levels of H3K4 methylation enhanced by T-448, and increased mRNA expression of neural plasticity-related genes including brain derived neurotrophic factor (Bdnf), and ameliorated learning dysfunction.
In vivo	T-448 increases brain H3K4 methylation and partially restored learning function in mice with NMDA receptor hypofunction. T-448 increases H3K4 methylation in the brain without causing hematological side effects even at 100 mg/kg.

Solubility Information

Solubility	DMSO: 16.67 mg/mL (43.13 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.587 mL	12.937 mL	25.873 mL
5 mM	0.517 mL	2.587 mL	5.175 mL
10 mM	0.259 mL	1.294 mL	2.587 mL
50 mM	0.052 mL	0.259 mL	0.517 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Matsuda S, et al. T-448, a specific inhibitor of LSD1 enzyme activity, improves learning function without causing thrombocytopenia in mice. Neuropsychopharmacology. 2018 Dec 22.