

T-448

Chemical Properties

CAS No. : 1597426-53-3

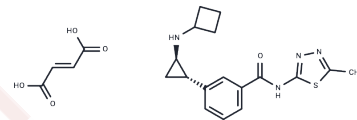
Formula: C19H22N4O3S

Molecular Weight: 386.47

Keep away from moisture

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	T-448 is a specific, orally active, and irreversible inhibitor of lysine-specific demethylase 1 (LSD1, an H3K4 demethylase) with an IC50 of 22 nM.
Targets(IC50)	Histone Demethylase
In vitro	In primary cultured rat neurons, T-448 (0-10 μ M ; 1 day treatment) increased Ucp2 H3K4me2 and Ucp2 mRNA significantly[1].
In vivo	In NR1-hypo mice, T-448 (1, 10 mg/kg ; orally, 3 weeks) can Dose-dependently increase the H3K4me2 levels around Bdnf, Arc, and Fos genes in the mouse hippocampus and Resulted in partial but statistically significant and dose-dependent rescue effects on the rate of correct choices in NR1-hypo mice[1].

Solubility Information

Solubility	DMSO: 16 mg/mL (41.4 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.59 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5875 mL	12.9376 mL	25.8752 mL
5 mM	0.5175 mL	2.5875 mL	5.175 mL
10 mM	0.2588 mL	1.2938 mL	2.5875 mL
50 mM	0.0518 mL	0.2588 mL	0.5175 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

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.

Matsuda S, et al. T-448, a specific inhibitor of LSD1 enzyme activity, improves learning function without causing thrombocytopenia in mice. *Neuropsychopharmacology*. 2019 Jul;44(8):1505-1512.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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