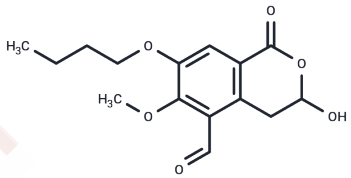
Data Sheet (Cat.No.T10190)

TargetMol

7-BIA

Chemical Properties



CAS No. : 1313403-49-4

Formula: C15H18O6

Molecular Weight: 294.3

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	7-BIA is a receptor-type protein tyrosine phosphatase D (PTPRD) inhibitor with anti-addictive properties, and is utilized in neuropathic pain research.
Targets(IC50)	Phosphatase
In vitro	7-BIA inhibits recombinant human PTPRD and recombinant human PTPRS with IC50 values of approximately 1-3 μM and 40 μM, respectively[1].
In vivo	Administered via intraperitoneal injection at a single dose of 10-20 mg/kg, 7-BIA reduces cocaine self-administration in experienced wild-type mice[1].
Animal Research	Animal Model: WT mice (available cocaine 50 times, 1 mg/kg infusions on FR1 schedule during ≥20 prior sessions). Dosage: 10 mg/kg, 20 mg/kg. Administration: Given i.p.; only once

Solubility Information

Solubility	DMSO: 80 mg/mL (271.83 mM),Sonication is recommended. Ethanol: 30 mg/mL (101.94 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: 5 mg/mL (16.99 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3979 mL	16.9895 mL	33.9789 mL
5 mM	0.6796 mL	3.3979 mL	6.7958 mL
10 mM	0.3398 mL	1.6989 mL	3.3979 mL
50 mM	0.068 mL	0.3398 mL	0.6796 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

Uhl GR, et al. Cocaine reward is reduced by decreased expression of receptor-type protein tyrosinephosphatase D (PTPRD) and by a novel PTPRD antagonist. Proc Natl Acad Sci U S A. 2018 Nov 6;115(45):11597-11602.