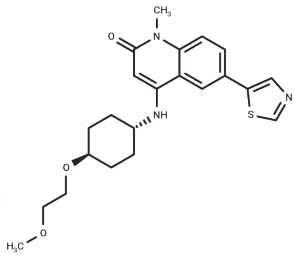
Data Sheet (Cat.No.T14913)

TargetMol

CD38 inhibitor 1

Chemical Properties



CAS No. : 1700637-55-3

Formula: C22H27N3O3S

Molecular Weight: 413.53

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	CD38 inhibitor 1 is a potent CD38 inhibitor that is effective against human CD38 (IC50 value is 7.3 nM) and mouse CD38 (IC50 value is 1.9 nM).
Targets(IC50)	CD38
In vivo	**METHODS**: CD38 inhibitor 1 (compound 78c) was administered intraperitoneally (10 (young mice), 15 (old mice) mg/kg, twice daily) for 4 to 14 weeks, and 78c concentrations in various tissues and plasma were measured. **RESULTS** Although CD38 inhibitor 1 promoted increases in NAD levels and exercise capacity in old mice, it had no significant effect on NAD levels or exercise tolerance in young (3-month-old) mice. [1]

Solubility Information

Solubility	DMSO: 66.25 mg/mL (160.21 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: 2 mg/mL (4.84 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	2.4182 mL	12.091 mL	24.182 mL
5 mM	0.4836 mL	2.4182 mL	4.8364 mL
10 mM	0.2418 mL	1.2091 mL	2.4182 mL
50 mM	0.0484 mL	0.2418 mL	0.4836 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

Haffner CD, et al. Discovery, Synthesis, and Biological Evaluation of Thiazoloquin(az)olin(on)es as Potent CD38 Inhibitors. J Med Chem. 2015 Apr 23;58(8):3548-71.
Haffner CD, et al. Discovery, Synthesis, and Biological Evaluation of Thiazoloquin(az)olin(on)es as Potent CD38 Inhibitors. J Med Chem. 2015 Apr 23;58(8):3548-71.