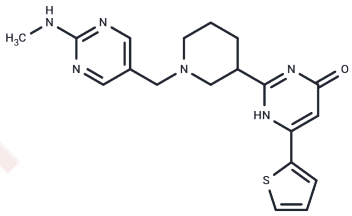
Data Sheet (Cat.No.T13869L)

TargetMol

Ribocil

Chemical Properties



CAS No. : 1381289-58-2

Formula: C19H22N6OS

Molecular Weight: 382.48

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	Ribocil is a highly selective chemical modulator of bacterial riboflavin riboswitches, strongly inhibiting GFP expression with a 50% effective concentration (EC50: 0.3 μM).
Targets(IC50)	Antibacterial
In vitro	Ribocil is a highly specific bioactive synthetic mimic of FMN, which competes with the natural ligand to inhibit FMN riboswitch-mediated expression of ribB and inhibits bacterial growth. Ribocil-B shows superior microbiological activity as compared to Ribocil-A (minimum inhibitory concentration (MIC) = 1 μg/ml versus MIC ≥ 64 μg/ml), inhibition of riboflavin synthesis (IC50 = 0.13 μM versus IC50 > 26 μM), and binding affinity to the E. coli FMN aptamer (Kd = 6.6 nM versus Kd ≥ 10,000 nM) [1]

Solubility Information

Solubility	DMSO: 30 mg/mL (78.44 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 (2.61 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	2.6145 mL	13.0726 mL	26.1452 mL
5 mM	0.5229 mL	2.6145 mL	5.229 mL
10 mM	0.2615 mL	1.3073 mL	2.6145 mL
50 mM	0.0523 mL	0.2615 mL	0.5229 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

Howe JA, et al. Selective small-molecule inhibition of an RNA structural element. Nature. 2015 Oct 29;526(7575): 672-7.