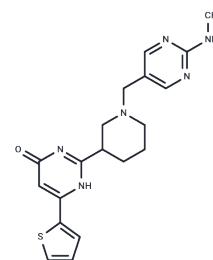


Ribocil

Chemical Properties

CAS No. :	1381289-58-2
Formula:	C ₁₉ H ₂₂ N ₆ O ₅
Molecular Weight:	382.48
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Ribocil is a highly selective chemical modulator of bacterial riboflavin riboswitches. Ribocil strongly inhibits GFP expression, achieving a 50% effective concentration (EC ₅₀ : 0.3 μM).
Targets(IC ₅₀)	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 (IC ₅₀ = 0.13 μM versus IC ₅₀ > 26 μM), and binding affinity to the E. coli FMN aptamer (K _d = 6.6 nM versus K _d ≥ 10,000 nM) [1]

Solubility Information

Solubility	DMSO: 24.8 mg/mL (64.84 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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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.

Reference

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

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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