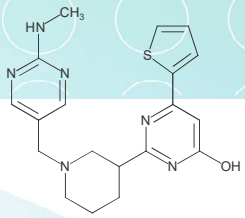
SL-68. Bacterial riboswitch inhibitors

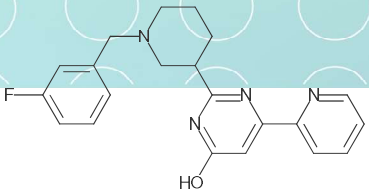
Bacterial riboswitches are RNA structures located in messenger RNAs that are involved in the regulation of bacterial metabolism and gene expression. Several studies have suggested that riboswitches could represent a novel class of antibiotic targets [1]. Blocking riboswitch binding to its native ligands with a small molecule inhibitor could halt the expression of essential genes affecting bacterial survival.

A group from Merck Research Laboratories published a series of structurally related compounds called "ribocils" – small molecules that target the riboflavin riboswitch [2]. These compounds demonstrate potent antibacterial activity and inhibit riboflavin, flavin mononucleotide and flavin adenine dinucleotide synthesis - essential cofactors of bacterial metabolism.

80 close structural analogs of one of the "ribocils" have been included in this library.



LAS 19562546



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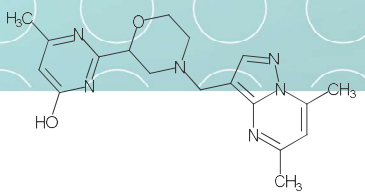

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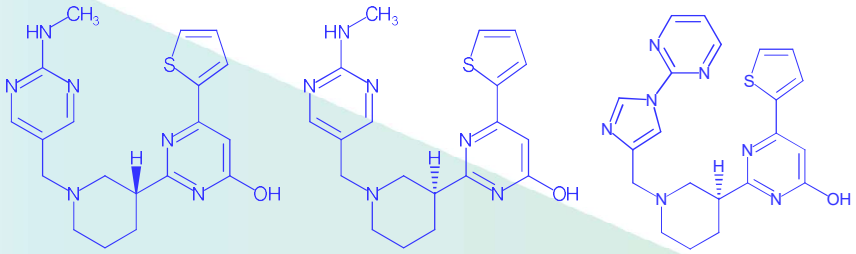

Ribocils A, B, C [2]

Signature Library 68

Formats	Supplementary Information
80 compounds per plate 0.1 mg; 1 mg; 2 mg dry film/powder 0.1 µmol; 1 µmol DMSO solutions	SL#68_FMN_riboswitch.sdf

References:

1. *Nature* volume526, pages672–677 doi:10.1038/nature15542
2. RNA Biol. 2016 Oct 2;13(10):946-954, doi: 10.1080/15476286.2016.1216304

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