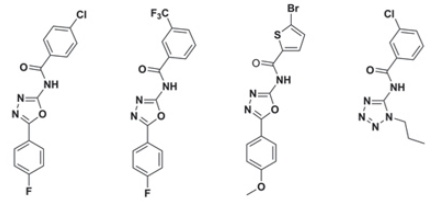
tmRNA Inhibitors as Antibacterial Agents

ID# 2006-3177

MIC for selected compounds.

MIC (µg/ml)	*S. flexneri*	*Y. pestis*	*F. tularensis*	*B. anthracis*	*M. tuberculosis*	*S. aureus*
KKL-35	2	1	0.1	0.25	<1.5	0.2
KKL-40	18	8	0.03	0.1	<1.5	0.2
KKL-55	0.8	16	0.5	6.6	10	16
KKL-10	1.2		0.1	0.3	>50	0.5



KKL-35 KKL-40 KKL-10 KKL-55

Inhibitor Structure of Select Pathogens

Technology Summary

The researchers have developed methods and compositions of matter relating to inhibitors of the tmRNA pathway. These potential therapeutics have antibacterial activity with broad species specificity, including B. anthracis and other pathogens of military and civilian interest. Identified compositions have been demonstrated to kill bacterial pathogens when added exogenously. Proof-of-concept animal testing is underway.

Application & Market Utility

Antibiotic-resistant infections are increasingly difficult to treat and cost $20 billion per year in direct healthcare costs. The subject antibiotics provide a new target for antibiotics and new chemical scaffolds with potent efficacy that can be used to treat infections in humans and/or animals. The researchers' top inhibitors are as effective as antibiotics in clinical use. They do not exhibit cross-resistance with any existing compounds.

Next Steps

Seeking research collaboration and licensing opportunities.

TECHNOLOGY READINESS LEVEL 1-3

Seeking

Investment | Licensing | Research

Keywords

- Drug Discovery
- Anitbiotics
- HTS Target Identification

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