Discovery of Novel Oral Protein Synthesis Inhibitors of Target Leucyl-tRNA Synthetase

Antimicrobial Agents and Chemotherapy

60, 6271-6280

DOI: 10.1128/aac.01339-16

Citation Report

#	Article	IF	Citations
1	Discovery of Leucyladenylate Sulfamates as Novel Leucyl-tRNA Synthetase (LRS)-Targeted Mammalian Target of Rapamycin Complex 1 (mTORC1) Inhibitors. Journal of Medicinal Chemistry, 2016, 59, 10322-10328.	2.9	15
2	Structure-Based Targeting of Orthologous Pathogen Proteins Accelerates Antiparasitic Drug Discovery. ACS Infectious Diseases, 2017, 3, 281-292.	1.8	13
3	Targeting Toxoplasma gondii <scp>CPSF</scp> 3 as a new approach to control toxoplasmosis. EMBO Molecular Medicine, 2017, 9, 385-394.	3.3	61
4	Discovery of a Potent and Specific M. tuberculosis Leucyl-tRNA Synthetase Inhibitor: (S)-3-(Aminomethyl)-4-chloro-7-(2-hydroxyethoxy)benzo[c][1,2]oxaborol-1(3H)-ol (GSK656). Journal of Medicinal Chemistry, 2017, 60, 8011-8026.	2.9	118
5	Priming the tuberculosis drug pipeline: new antimycobacterial targets and agents. Current Opinion in Microbiology, 2018, 45, 39-46.	2.3	40
6	In Vitro and In Vivo Activities of DS86760016, a Novel Leucyl-tRNA Synthetase Inhibitor for Gram-Negative Pathogens. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	18
7	Hit Generation in TB Drug Discovery: From Genome to Granuloma. Chemical Reviews, 2018, 118, 1887-1916.	23.0	80
8	The Expanding Diversity of Mycobacterium tuberculosis Drug Targets. ACS Infectious Diseases, 2018, 4, 696-714.	1.8	60
9	New antituberculous drugs derived from natural products: current perspectives and issues in antituberculous drug development. Journal of Antibiotics, 2018, 71, 15-25.	1.0	20
10	A continuous assay for monitoring the synthetic and proofreading activities of multiple aminoacyl-tRNA synthetases for high-throughput drug discovery. RNA Biology, 2018, 15, 659-666.	1.5	11
11	An automated high-throughput system for phenotypic screening of chemical libraries on C. elegans and parasitic nematodes. International Journal for Parasitology: Drugs and Drug Resistance, 2018, 8, 8-21.	1.4	71
12	The 7-phenyl benzoxaborole series is active against Mycobacterium tuberculosis. Tuberculosis, 2018, 108, 96-98.	0.8	22
13	The trypanocidal benzoxaborole AN7973 inhibits trypanosome mRNA processing. PLoS Pathogens, 2018, 14, e1007315.	2.1	53
14	Binding Assessment of Monosaccharideâ€“Boronic Acid Complexes via Tandem Mass Spectrometry. ChemistrySelect, 2018, 3, 8193-8198.	0.7	1
15	The present state of the tuberculosis drug development pipeline. Current Opinion in Pharmacology, 2018, 42, 81-94.	1.7	70
17	Boron in drug design: Recent advances in the development of new therapeutic agents. European Journal of Medicinal Chemistry, 2019, 179, 791-804.	2.6	154
18	Progress and challenges in aminoacyl-tRNA synthetase-based therapeutics. Journal of Biological Chemistry, 2019, 294, 5365-5385.	1.6	103
19	Recent development of leucyl-tRNA synthetase inhibitors as antimicrobial agents. MedChemComm, 2019, 10, 1329-1341.	3.5	25

#	Article	IF	Citations
20	Opportunities for Overcoming Mycobacterium tuberculosis Drug Resistance: Emerging Mycobacterial Targets and Host-Directed Therapy. International Journal of Molecular Sciences, 2019, 20, 2868.	1.8	47
21	First-Time-in-Human Study and Prediction of Early Bactericidal Activity for GSK3036656, a Potent Leucyl-tRNA Synthetase Inhibitor for Tuberculosis Treatment. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	50
22	Drug-resistance inMycobacterium tuberculosis: where we stand. MedChemComm, 2019, 10, 1342-1360.	3.5	57
23	Antibacterial Activity and Mode of Action of a Sulfonamide-Based Class of Oxaborole Leucyl-tRNA-Synthetase Inhibitors. ACS Infectious Diseases, 2019, 5, 1231-1238.	1.8	26
24	Boron-Pleuromutilins as Anti-Wolbachia Agents with Potential for Treatment of Onchocerciasis and Lymphatic Filariasis. Journal of Medicinal Chemistry, 2019, 62, 2521-2540.	2.9	35
25	Optimization of Methionyl tRNA-Synthetase Inhibitors for Treatment of Cryptosporidium Infection. Antimicrobial Agents and Chemotherapy, 2019, 63, .	1.4	37
26	New Drugs for the Treatment of Tuberculosis. Clinics in Chest Medicine, 2019, 40, 811-827.	0.8	33
27	Roles of aminoacyl-tRNA synthetases in immune regulation and immune diseases. Cell Death and Disease, 2019, 10, 901.	2.7	58
28	New drugs to treat difficult tuberculous and nontuberculous mycobacterial pulmonary disease. Current Opinion in Pulmonary Medicine, 2019, 25, 271-280.	1.2	21
29	Impact of Target-Based Drug Design in Anti-bacterial Drug Discovery for the Treatment of Tuberculosis. Challenges and Advances in Computational Chemistry and Physics, 2019, , 307-346.	0.6	3
30	Exploiting evolutionary trade-offs for posttreatment management of drug-resistant populations. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17924-17931.	3.3	19
31	Recent Development of Aminoacyl-tRNA Synthetase Inhibitors for Human Diseases: A Future Perspective. Biomolecules, 2020, 10, 1625.	1.8	24
32	A review of recent advances in anti-tubercular drug development. Indian Journal of Tuberculosis, 2020, 67, 539-559.	0.3	9
33	Two Decades of TB Drug Discovery Effortsâ€"What Have We Learned?. Applied Sciences (Switzerland), 2020, 10, 5704.	1.3	13
34	Development of a novel secondary phenotypic screen to identify hits within the mycobacterial protein synthesis pipeline. FASEB BioAdvances, 2020, 2, 600-612.	1.3	2
35	Aminoacyl-tRNA synthetases as drug targets. The Enzymes, 2020, 48, 321-350.	0.7	7
36	Molecular mechanisms of underlying genetic factors and associated mutations for drug resistance in Mycobacterium tuberculosis. Emerging Microbes and Infections, 2020, 9, 1651-1663.	3.0	35
37	Synthesis, Characterization, and Biological Evaluation of Novel 7-Oxo-7H-thiazolo[3,2-b]-1,2,4-triazine-2-carboxylic Acid Derivatives. Molecules, 2020, 25, 1307.	1.7	9

#	Article	IF	Citations
38	Antibiotics in the clinical pipeline in October 2019. Journal of Antibiotics, 2020, 73, 329-364.	1.0	188
39	In Vitro Susceptibility Testing of GSK656 against Mycobacterium Species. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	4
40	Molecular basis of the multifaceted functions of human leucyl-tRNA synthetase in protein synthesis and beyond. Nucleic Acids Research, 2020, 48, 4946-4959.	6.5	11
41	Assessing the role of SH3RF1 and SH3RF2 polymorphisms in susceptibility to tuberculosis: A case-control study in the Han Chinese population. Microbial Pathogenesis, 2021, 152, 104567.	1.3	1
43	Pipeline of antiâ€Mycobacterium abscessus small molecules: Repurposable drugs and promising novel chemical entities. Medicinal Research Reviews, 2021, 41, 2350-2387.	5.0	32
44	A Leucyl-tRNA Synthetase Inhibitor with Broad-Spectrum Antimycobacterial Activity. Antimicrobial Agents and Chemotherapy, 2021, 65, .	1.4	23
45	Spontaneous Selection of Cryptosporidium Drug Resistance in a Calf Model of Infection. Antimicrobial Agents and Chemotherapy, 2021, 65, .	1.4	12
46	A Screening of the MMV Pandemic Response Box Reveals Epetraborole as A New Potent Inhibitor against Mycobacterium abscessus. International Journal of Molecular Sciences, 2021, 22, 5936.	1.8	16
47	Inhibitors of aminoacyl-tRNA synthetases as antimycobacterial compounds: An up-to-date review. Bioorganic Chemistry, 2021, 110, 104806.	2.0	24
48	Organoboron Compounds: Effective Antibacterial and Antiparasitic Agents. Molecules, 2021, 26, 3309.	1.7	27
49	Chemical Classes Presenting Novel Antituberculosis Agents Currently in Different Phases of Drug Development: A 2010â€“2020 Review. Pharmaceuticals, 2021, 14, 461.	1.7	31
50	GENETIC FACTORS ASSOCIATED WITH MUTATIONS OF MOLECULAR MECHANISM AND DRUG RESISTANCE IN MYCOBACTERIUM TUBERCULOSIS. Biological & Clinical Sciences Research Journal, 2021, 2021, .	0.4	1
52	Current Molecular Therapeutic Agents and Drug Candidates for Mycobacterium abscessus. Frontiers in Pharmacology, 2021, 12, 724725.	1.6	15
53	Epetraborole Is Active against Mycobacterium abscessus. Antimicrobial Agents and Chemotherapy, 2021, 65, e0115621.	1.4	17
54	Challenges and Advances in TB Drug Discovery. , 2019, , 463-495.		2
55	Clinical Management of Drug-resistant Mycobacterium tuberculosis Strains: Pathogen-targeted Versus Host-directed Treatment Approaches. Current Pharmaceutical Biotechnology, 2019, 20, 272-284.	0.9	3
56	Efficacy of epetraborole against Mycobacterium abscessus is increased with norvaline. PLoS Pathogens, 2021, 17, e1009965.	2.1	19
60	Benzoxaboroles: New emerging and versatile scaffold with a plethora of pharmacological activities. Journal of Molecular Structure, 2022, 1252, 132057.	1.8	9

#	Article	IF	Citations
61	Design and synthesis of leucylaniline derivatives as leucyl-tRNA synthetase inhibitors. New Journal of Chemistry, 2022, 46, 4142-4155.	1.4	0
62	Boron-containing small molecules as antiparasitic agents. , 2022, , 155-201.		0
63	Deep learning-driven prediction of drug mechanism of action from large-scale chemical-genetic interaction profiles. Journal of Cheminformatics, 2022, 14, 12.	2.8	9
64	Investigate Natural Product Indolmycin and the Synthetically Improved Analogue Toward Antimycobacterial Agents. ACS Chemical Biology, 2022, 17, 39-53.	1.6	10
65	Identification of novel mycobacterium tuberculosis leucyl-tRNA synthetase inhibitor using a knowledge-based computational screening approach. Journal of King Saud University - Science, 2022, 34, 102032.	1.6	3
66	Tuberculosis Drug Discovery: Challenges and New Horizons. Journal of Medicinal Chemistry, 2022, 65, 7489-7531.	2.9	59
67	A Novel Leucyl-tRNA Synthetase Inhibitor, MRX-6038, Expresses Anti-Mycobacterium abscessus Activity In Vitro and In Vivo. Antimicrobial Agents and Chemotherapy, 2022, 66, .	1.4	6
68	Identification of dual-targeted Mycobacterium tuberculosis aminoacyl-tRNA synthetase inhibitors using machine learning. Future Medicinal Chemistry, 2022, 14, 1223-1237.	1.1	3
69	Oxazoline scaffold in synthesis of benzosiloxaboroles and related ring-expanded heterocycles: diverse reactivity, structural peculiarities and antimicrobial activity. RSC Advances, 2022, 12, 23099-23117.	1.7	2
70	Hypothesis-generating proteome perturbation to identify NEU-4438 and acoziborole modes of action in the African Trypanosome. IScience, 2022, 25, 105302.	1.9	1
71	Why Matter Matters: Fast-Tracking Mycobacterium abscessus Drug Discovery. Molecules, 2022, 27, 6948.	1.7	7
72	Lysyl-tRNA synthetase, a target for urgently needed M. tuberculosis drugs. Nature Communications, 2022, 13, .	5.8	10
73	The Struggle to End a Millennia-Long Pandemic: Novel Candidate and Repurposed Drugs for the Treatment of Tuberculosis. Drugs, 2022, 82, 1695-1715.	4.9	17
74	Adenosine-Dependent Activation Mechanism of Prodrugs Targeting an Aminoacyl-tRNA Synthetase. Journal of the American Chemical Society, 2023, 145, 800-810.	6.6	3
75	Design, Synthesis and Antimicrobial Evaluation of New N-(1-Hydroxy-1,3-dihydrobenzo[c][1,2]oxaborol-6-yl)(hetero)aryl-2-carboxamides as Potential Inhibitors of Mycobacterial Leucyl-tRNA Synthetase. International Journal of Molecular Sciences, 2023, 24, 2951.	1.8	0
76	ABT-MPNN: an atom-bond transformer-based message-passing neural network for molecular property prediction. Journal of Cheminformatics, 2023, 15, .	2.8	5
77	Natural products and their analogues acting against Mycobacterium tuberculosis: A recent update. Drug Development Research, 2023, 84, 779-804.	1.4	2
81	MEDICINAL CHEMISTRY ENDEAVORS FOR THE DISCOVERY OF NOVEL TUBERCULOSIS DRUGS. Medicinal Chemistry Reviews, 0, , 337-358.	0.1	0

#	Article	IF	Citations
82	Benzoxaborole. , 2023, , 335-355.		0
83	TargetingMycobacterium tuberculosisiron-scavenging tools: a recent update on siderophores inhibitors. RSC Medicinal Chemistry, 2023, 14, 1885-1913.	1.7	1
88	Treatment of Drug-Resistant Pulmonary Tuberculosis. , 2023, , 227-240.		0