




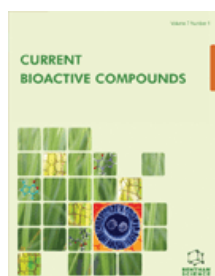
(/)

Search for...

Q Search

Search in: All Article Chapter Book

Advanced Search (/search/aws_search.php)


<https://www.linkedin.com/company/benthamscience><https://www.facebook.com/BenthamSciencePublishers><https://www.youtube.com/c/benthamsciencepublisher><https://twitter.com/BenthamScienceP><https://benthamsciencepublishers.wordpress.com/>  (/142284/kudos)

Purchase PDF

Research Article

Synthesis, Antimicrobial Evaluation and Docking Study of Novel Thiosemicarbazone Clubbed with 1,2,3-Triazoles

(E-pub Ahead of Print)

Author(s): Adinath D. Badar, Shubham M. Sulakhe, Mahesh B. Muluk, Naziya N. M. A. Rehman, Prashant P. Dixit, Prafulla B. Choudhari, Giribala M. Bondle, Kishan P. Haval*
 (<http://orcid.org/0000-0002-2526-8738>)

Journal Name: Current Bioactive Compounds

DOI : 10.2174/1573407216999200911121853
(<https://doi.org/10.2174/1573407216999200911121853>)

 [Journal Home \(/node/583\)](/node/583)



(<https://www.eurekaselect.com/node/583/current-bioactive-compounds/become-ebm-form/eabm>)



(<https://www.eurekaselect.com/node/583/current-bioactive-compounds/become-ebm-form/reviewer>)



(<https://www.eurekaselect.com/node/583/current-bioactive-compounds/become-ebm-form/editorcall>)

Abstract:

Background: Thiosemicarbazone, 1,2,3-triazole and their derivatives received great pharmaceutical importance due to their prominent biological activities. In the present study, the molecular hybrid thiosemicarbazone-1,2,3-triazoles derivatives were synthesized and screened for their antimicrobial activities.

Methods: A series of thiosemicarbazone clubbed with 1,2,3-triazole derivatives were synthesized via click chemistry approach in good yields. The structures of synthesized compounds were assigned by their spectral data. The in vitro antimicrobial activity was performed by the agar well diffusion method. A molecular docking study was performed to identify the possible mode of action of synthesized derivatives.

Results: The compounds 5d, 5h, 5i and 5k have exhibited excellent antimicrobial activities against both antibacterial and antifungal pathogens. The active thiosemicarbazone-1,2,3-triazole derivatives have shown excellent binding affinity towards DNA gyrase.

Conclusion: The molecular hybrid thiosemicarbazone-1,2,3-triazole derivatives were synthesized. The newly synthesized compounds were evaluated for their antimicrobial activities. Few of the thiosemicarbazone-1,2,3-triazoles derivatives have exhibited good antimicrobial activities. They have been shown excellent binding affinity towards DNA gyrase.

Keywords: 1 (https://www.eurekaselect.com/search/aws_search.php?searchvalue=1), 2 (https://www.eurekaselect.com/search/aws_search.php?searchvalue=2), 3-Triazole (https://www.eurekaselect.com/search/aws_search.php?searchvalue=3-Triazole), Thiosemicarbazone (https://www.eurekaselect.com/search/aws_search.php?searchvalue=Thiosemicarbazone), Antimicrobial Activity (https://www.eurekaselect.com/search/aws_search.php?searchvalue=AntimicrobialActivity), Molecular Docking Study (https://www.eurekaselect.com/search/aws_search.php?searchvalue=MolecularDockingStudy), Click Chemistry. (https://www.eurekaselect.com/search/aws_search.php?searchvalue=ClickChemistry.)

[Mark Item](#)[Purchase PDF](#)[Rights & Permissions](#)[Print](#)[Export](#)[Cite as](#)[Other](#)

Article Details

(E-pub Ahead of Print)

DOI: 10.2174/1573407216999200911121853 (<https://doi.org/10.2174/1573407216999200911121853>)

Price: \$95

Article Metrics

PDF: 2

Most Downloaded Article(s)

Evaluation of In Vivo Efficacy of Aqueous Extract of Aerial Parts of *Cynodon dactylon* in Rats with Simultaneous Type 2 Diabetes and Hypertension (<https://www.eurekaselect.com/node/139371/?tracking-code=4>)

[Current Bioactive Compounds](#)

Inhibitory Action of Andrographolide on Cyclooxygenase-2 Enzyme Activity: In Silico and In Vitro Studies (<https://www.eurekaselect.com/node/140348/?tracking-code=4>)

[Current Bioactive Compounds](#)

Bioinorganic Chemistry of Platinum(IV) Complexes as Platforms for Anticancer Agents (<https://www.eurekaselect.com/node/171464/?tracking-code=4>)

[Current Bioactive Compounds](#)

Synthesis of Novel 1,2-Dihydro-1,2,4-Triazin-6(5H)-one Derivatives as Anticancer Agents (<https://www.eurekaselect.com/node/176015/?tracking-code=4>)

[Current Bioactive Compounds](#)

Bryophyllum Pinnatum: A Review on Medicinal Benefits and Potent Bioactive Molecules (<https://www.eurekaselect.com/node/175382/?tracking-code=4>)

[Current Bioactive Compounds](#)

Metabolomics and Pharmacological Screening of *Aspergillus versicolor* Isolated from *Hyrtilis erectus* Red Sea Sponge; Egypt (<https://www.eurekaselect.com/node/176548/?tracking-code=4>)

[Current Bioactive Compounds](#)

Phenanthroindolizidines and Phenanthroquinolizidines: Promising Alkaloids for Anti-Cancer Therapy
(<https://www.eurekaselect.com/node/68898/?tracking-code=4>)

[Current Bioactive Compounds](#)

Thoughtful Insights into the Therapeutic Armamentarium of Chalcones: 10 Years of Glorious Journey
(<https://www.eurekaselect.com/node/171564/?tracking-code=4>)

[Current Bioactive Compounds](#)

Antioxidant, Antitumor and Bactericidal Activities of Ethyl Gallate Quinoxalines
(<https://www.eurekaselect.com/node/170804/?tracking-code=4>)


[Current Bioactive Compounds](#)

In Vitro Genotoxicity and Molecular Docking Study of Ellagic Acid
(<https://www.eurekaselect.com/node/176350/?tracking-code=4>)

[Current Bioactive Compounds](#)

(</terms/termandcondition.html?1>)

© 2021 Bentham Science Publishers (<https://www.eurekaselect.com/136826/page/terms-and-conditions>) |
Privacy Policy (<https://www.eurekaselect.com/180856/page/bentham-science-privacy-notice-may-2018>)

 [\(https://www.projectcounter.org/counter-user/bentham-science/\)](https://www.projectcounter.org/counter-user/bentham-science/)