

ANTIMICROBIAL PROPERTIES OF 2-([1,2,4]TRIAZOLO[1,5-*c*]-QUINAZOLIN-2-YLSULFANYL)ACETAMIDES

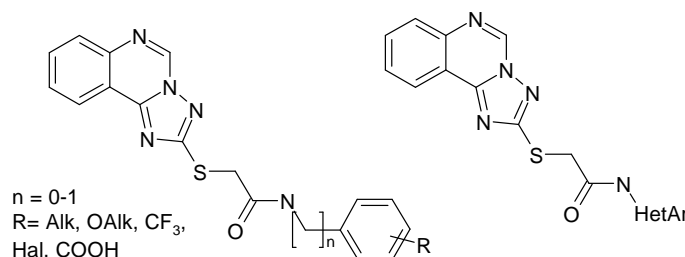
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It was reported that series of novel 4-arylideneamino-3-mercapto-5-[(1*H*-indol-3-yl)methyl]-4*H*-1,2,4-triazoles and 3-[(1*H*-indol-3-yl)methyl]-6-aryl-7*H*-1,2,4-triazolo[3,4-*b*][1,3,4]thiadiazines inhibited growth of *Bacillus cereus* and *Staphylococcus aureus* [1]. Also considering, that 2,4-dichloro- and 2-methoxy-*N*-(4-(3-(2,4-dichlorophenyl)-3-oxo-2-(1*H*-1,2,4-triazol-1-yl)prop-1-enyl)phenyl)benzami-des possessed high antibacterial activity against *Ralstonia solanacearum* [2], we were aimed to investigate the antimicrobial properties of the synthesized novel 2-([1,2,4]triazolo[1,5-*c*]quinazolin-2-ylsulfanyl)acetamides:



The structure of all synthesized compounds was evaluated by elemental analysis and their spectral data (IR, LC-MS, ¹H and ¹³C-NMR spectra).

The *in vitro* antibacterial activity was evaluated against Gram positive bacteria (*Staphylococcus aureus*, *Enterococcus faecalis*) and Gram negative bacteria (*Enterobacter aerogenes*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Klebsiella pneumoniae*). The agar-diffusion method was used for the determination of preliminary activity compared to well-known reference antimicrobials. All compounds were dissolved in DMSO in a concentration of 100 µg/disk, using inhibition zone diameter (IZD, mm) as a measure for the antimicrobial activity.

Consequently, it was found that only 2-([1,2,4]triazolo[1,5-*c*]quinazolin-2-ylthio)-*N*-(2-fluorophenyl)acetamide had antibacterial activity against *Enterococcus faecalis*.

Therefore, the functionalization of the [1,2,4]triazolo[1,5-*c*]quinazoline derivatives will be continued.

1. New triazole and triazolothiadiazine derivatives as possible antimicrobial agents / Zafer Asim Kaplancikli, Gu lhan Turan-Zitouni, Ahmet Ozdemir, Gilbert Revial // *Eur. J. Med. Chem.* 2008, 43, 155-159.

2. Synthesis, antifungal and antibacterial activity for novel amide derivatives containing a triazole moiety / R. Tang, L. Jin, Ch. Mou, J.Yin, S. Bai, D. Hu, J. Wu, S. Y. B. Song // *Chem Cent. J.* 2013, 7-30.