

## **Antimikrobna aktivnost novih mešovutih azina kumarina i heteroaril-aldehida**

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Azinska funkcionalna grupa ulazi u sastav mnogih jedinjenja koja ispoljavaju širok spektar farmakoloških aktivnosti. Kao deo naših istraživanja biološki aktivnih jedinjenja, dizajnirali smo, sintetisali i spektralno okarakterisali seriju mešovutih azina sa kumarinskim i još jednim heterocikličnim jezgrom. Antimikrobna aktivnost sintetisanih derivata ispitana je metodom mikrodilucije prema pet sojeva mikroorganizama i to prema Gram-pozitivnim bakterijama (*Staphylococcus aureus* i *Bacillus cereus*), Gram-negativnim bakterijama (*Escherichia coli* i *Salmonella enteritidis*) i jednom soju kvasca (*Candida albicans*). Ispitivana jedinjenja pokazala su veću inhibitornu aktivnost prema Gram-negativnim bakterijama, sa najvećom osetljivošću *E. coli* prema derivatima sa pirolskim fragmentom. Sojevi *B. cereus* i *C. albicans* pokazali su najveću rezistenciju prema testiranim jedinjenjima.

## **Antimicrobial activity of new mixed azines of coumarins and heteroaryl aldehydes**

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The azine functional group is a part of numerous compounds exhibiting a range of pharmacological activities. As part of our continuous search for new pharmacologically active compounds, we designed, synthesized, and spectrally characterized a series of mixed azines containing coumarin and another heterocyclic moiety. Antimicrobial activity of the synthesized compounds was evaluated by a microdilution assay against five different microorganisms, namely Gram-positive bacteria (*Staphylococcus aureus* and *Bacillus cereus*), Gram-negative bacteria (*Escherichia coli* and *Salmonella enteritidis*), and one yeast (*Candida albicans*). It was found that the tested compounds showed higher inhibitory activity against Gram-negative bacteria, with the greatest sensitivity of *E. coli* to the derivatives with a pyrrole fragment. *B. cereus* and *C. albicans* were the most resistant strains to the tested compounds.

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