

## SUPPLEMENTARY INFORMATION

*Regular paper*

# **Evaluating the antimicrobial activity of muramyl dipeptide derivatives, retro-tuftsins derivatives, and anthraquinone oligopeptides against a range of pathogenic bacteria**

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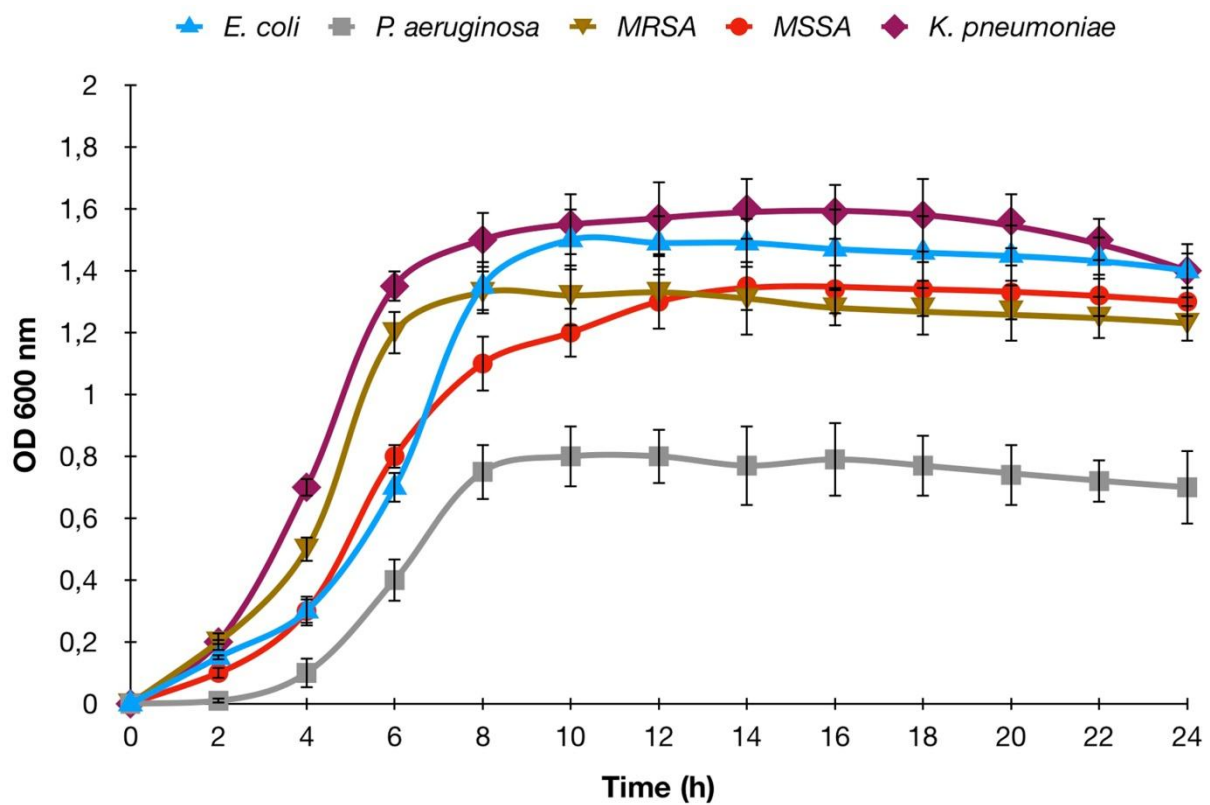
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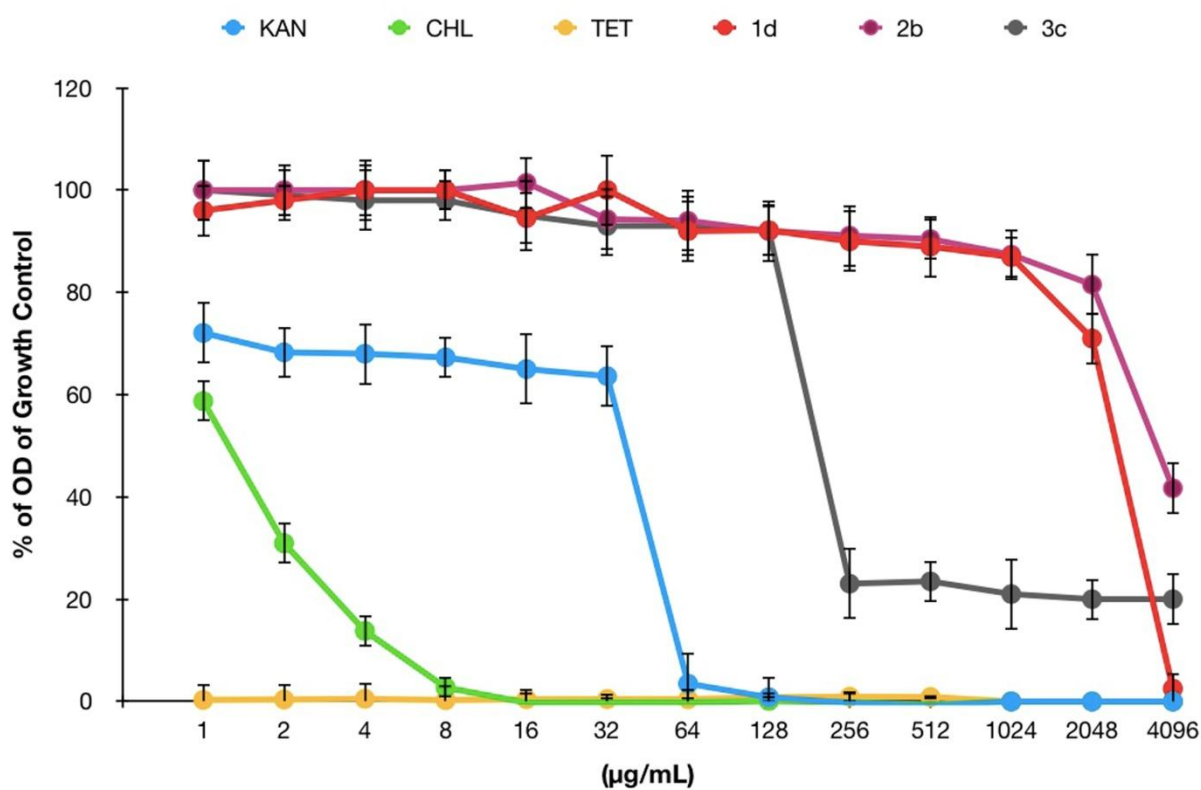
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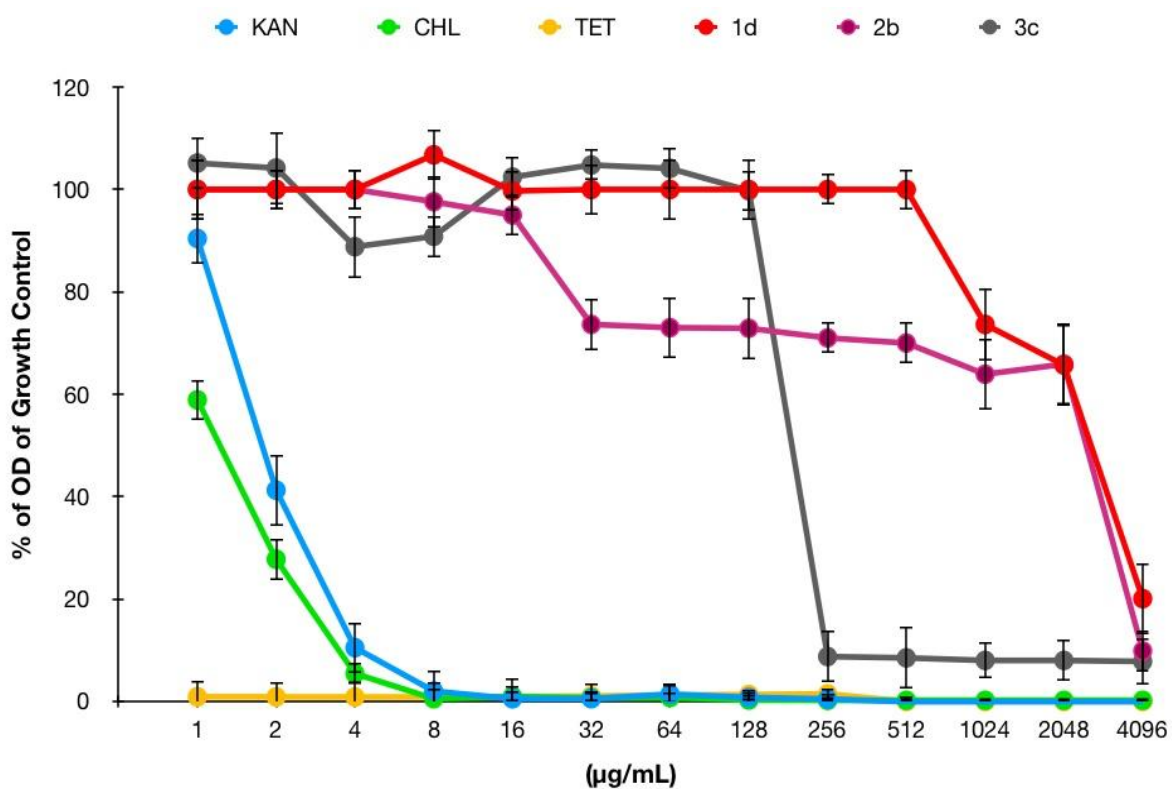
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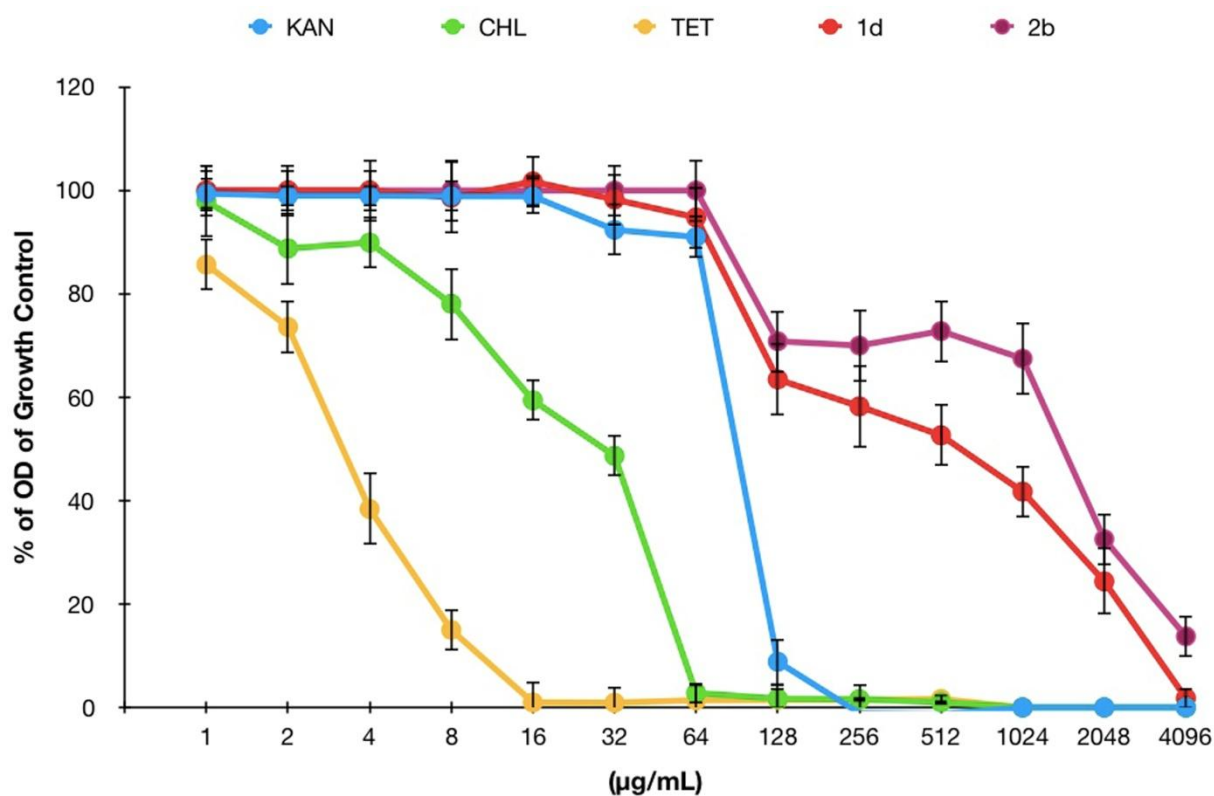
**Fig. S1** Growth curves of *E. coli*, *P. aeruginosa*, *S. aureus* MRSA, *S. aureus* MSSA, and *K. pneumoniae* cultured in MHBII medium in the absence of any other compounds or antibiotics. The growth abilities were evaluated by the optical density at 600 nm (OD<sub>600</sub>) throughout the cultivation (time 0 - 24 h). Experiments were performed in triplicate to calculate the mean and standard deviation represented by the error bars.



**Fig. S2** Effect of novel classes compounds (**2b**, **3c**, **1d**) and references: kanamycin, tetracycline, and chloramphenicol on the spectroscopically measured growth of *S. aureus* (MRSA), relative to the drug-free control well. The results are presented as the mean of three separate experiments in triplicate, and the error bars represent standard deviation. The MIC values are presented in a logarithmic scale ( $\log_2$ ).



**Fig. S3** Effect of novel classes compounds (**2b**, **3c**, **1d**) and references: kanamycin, tetracycline, and chloramphenicol on the spectroscopically measured growth of *S. aureus* (MSSA), relative to the drug-free control well. The results are presented as the mean of three separate experiments in triplicate, and the error bars represent standard deviation. The MIC values are presented in a logarithmic scale ( $\log_2$ ).



**Fig. S4** Effect of novel classes compounds (**2b**, **1d**) and references: kanamycin, tetracycline, and chloramphenicol on the spectroscopically measured growth of *Pseudomonas aeruginosa*, relative to the drug-free control well. The results are presented as the mean of three separate experiments in triplicate, and the error bars represent standard deviation. The MIC values are presented in a logarithmic scale ( $\log_2$ ).