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ANTIMICROBIAL ACTIVITIES OF *STREPTOMYCES COELICOLOR* STRAIN AOB KF977550 ISOLATED FROM A TROPICAL ESTUARY

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Abstract

The aim of this study is to screen for antibioticly important *Streptomyces* from a tropical estuary. Five bacterial strains identified by 16S rDNA gene sequencing as *Streptomyces albogriseolus*, *S. aureus*, *S. coelicolor*, *S. albus*, and *S. pseudogriseolus* were isolated from the Lagos Lagoon. Ethyl acetate extracts of the test *Streptomyces* spp fermented broths were evaluated against laboratory strains of MRSA *Staphylococcus aureus* 144m, *Bacillus coagulans* UL001, *Escherichia coli* and standard strains *Klebsiella pneumonia* ATCC 8308, *Gardnerella vaginalis* ATCC 27853 and *Salmonella typhi* ATCC 13311 using the well diffusion method. The presence of secondary metabolite was determined and analyzed using gas chromatography-mass spectrometer (GC-MS). Broad spectrum of activity was observed for only *S. coelicolor* on all the tested bacteria except *S. typhi*, GC-MS analysis revealed the presence of 16 secondary metabolites with antibioticly

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