

purified using vacuum liquid chromatography and column chromatography. Structure elucidation using 1D and 2D NMR techniques together with IR spectroscopy revealed the presence of anthraquinone (1,8-dihydroxy-3-methylanthraquinone) from ethyl acetate crude extract, while betulinic acid and a mixture of β -sitosterol and stigmasterol from the hexane crude extract. In this study, structural identification of these constituents will be presented.

SYNTHESIS OF 2'-HYDROXY-4'-O-PRENYLCHALCONES

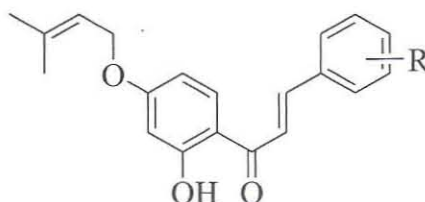
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A facile method has been applied to synthesis 4'-O-prenylchalcones through Claisen-Schmidt condensation between prenylated acetophenone and benzaldehyde derivatives giving chalcones **1-5**. The structures of the compounds were verified through spectroscopic methods; NMR and IR spectroscopies. These compounds are; 2'-hydroxy-4-(*N,N*-dimethyl)amino-4'-O-prenylchalcone (**1**), 2'-hydroxy-2-methoxy-4'-O-prenylchalcone (**2**), 2'-hydroxy-4-isopropyl-4'-O-prenylchalcone (**3**), 2'-hydroxy-3,4-dimethoxy-4'-O-prenylchalcone (**4**) and 2'-hydroxy-4-nitro-4'-O-prenylchalcone (**5**). The compounds were later subjected to antibacterial activities using micro-dilution method against Gram-positive and Gram-negative bacteria.



1 R= 4-(*N,N*-dimethyl)amino

2 R= 2-methoxy

3 R= 4-isopropyl

4 R= 3,4-dimethoxy

5 R= 4-nitro

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SYNTHESIS AND CHARACTERIZATION OF SOME HETEROCYCLIC CHALCONES

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