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Antibacterial Property of Flavonoids from Artocarpus Lowii King

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Eight flavonoids isolated from Artocarpus lowii King were screened for their antibacterial property. The flavonoids which were fully characterized on the basis of their spectroscopic data were artocarpin (1), isobayachalcone (2), 4-hydroxyonchocarpin (3), 2'-methoxy-8-\(\gamma\),\(\gamma\)-dimethylallyl-2',4'-dihydroxy-4-methoxy-3'-prenyldihydrochalcone (4),cycloheterophyllin (5),carpachromene (6), 2-hydroxyparatocarpin-C (7) and 2',3,4',4-tetrahydroxy-3'-prenylchalcone (8). The antibacterial assay was conducted using four bacterial strains, Staphylococcus aureus, Bacillus subtilis, Pseudomonas putida and Escherichia coli. Artocarpin (1) showed the most significant antibacterial property with MBC value of 450 µg/mL followed by isobavachalcone (2) and 4-hydroxyonchocarpin (3). The structural antibacterial property relationship showed that the presence of C-2/C-4 hydroxyl groups, C-4' oxygenated substituents and/or C-3' isoprenoid side chain played significant role in their antibacterial

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