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Volume 23, Issue 1, 2017, Pages 5-8**Antimicrobial activity of methyl gallate isolated from the leaves of Glochidion superbum** against hospital isolates of methicillin resistant staphylococcus aureus (Article)Ahmed, M.D.^a, Taher, M.^b, Maimusa, A.H.^c, Rezali, M.F.^d, Mustafa Mahmud, M.I.A.-D.^a [✉](#) [i](#)^aDepartment of Basic Medical Sciences, Kulliyah of Medicine, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, Kuantan, Pahang, Malaysia^bDepartment of Pharmaceutical Technology, Kulliyah of Pharmacy, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, Kuantan, Pahang, Malaysia^cVector Control Unit, Faculty of Biological Sciences, USM, Pulau, Pinang, Malaysia[View additional affiliations](#)

Abstract

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An antimicrobial compound has been isolated from the leaves of *Glochidion superbum*. The compound was determined as methyl 3, 4, 5-trihydroxybenzoate (methyl gallate), based on ultraviolet (UV), infrared (IR), nuclear magnetic resonance (NMR) and mass spectroscopy (MS) analysis. The isolated compound exhibited potent antimicrobial activity against three clinical isolates of methicillin resistant *Staphylococcus aureus* (MRSA) by qualitative agar disc diffusion method and quantitative broth dilution method. Agar disc diffusion was done in a dose-dependent manner for each bacterial isolate at disc potencies of 25, 50, 100, and 150 µg/disc. The zones of inhibition were on average equal to 12.27, 14.20, 15.43, and 24.17 mm respectively. The inhibition zones were compared with that of vancomycin disc at 30 µg as a reference standard. The MIC and MBC values were 50 µg/mL and 100 µg/mL respectively. The results of anti MRSA activity were analyzed using one-way ANOVA with Turkey's HSD and Duncan test. In conclusion, methyl gallate which was isolated from *G. superbum* showed the inhibition activity against methicillin resistant *S. aureus*. © 2017, Korean Society of Pharmacognosy. All rights reserved.

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