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Isolation, Identification and Tyrosinase Inhibitory Activities of the Extractives from Allamanda cathartica

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ABSTRACT

Tyrosinase inhibitory activity of the extractives from A. cathartica was examined and their new bioactivity and potent active compounds were identified. Five compounds, glabridin, new lignan, kaempferol, naringenin, and allamandicin, were isolated by a series of chromatography, and identified by NMR and LC-MS. Among them, glabridin had the high-est tyrosinase inhibitory activity (IC50:2.93 μM) which is 15 times stronger than that of kojic acid used as positive con-trol (IC50:43.7 μM). Moreover the lignan was indentified as 1-[3-(4-allyl-2,6-dimethoxyphenoxy)-4-methoxyphenyl] propane-1,2,diol which was a novel lignan.

KEYWORDS

Allamanda c athartica, Tyrosinase, Glabridin, Kaempferol, Naringenin, Allamandicin

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