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 Natural Product Research
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GC-MS analysis of metabolites from soxhlet extraction , ultrasound-assisted extraction and supercritical fluid extraction of *Salacca zalacca* flesh and its alpha-glucosidase inhibitory activity

(Article in press ?)

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Abstract

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Different extraction processes were employed to extract bioactive metabolites from *Salacca zalacca* flesh by a range of aqueous and organic solvents. The highest extraction yield was obtained by 50% ethanol extract of SE ($73.18 \pm 4.35\%$), whereas SFE₁ showed the lowest yield ($0.42 \pm 0.08\%$). All extracts were evaluated for in vitro α -glucosidase inhibitory activity, measured by their IC₅₀ values in comparison to that of quercetin, the positive control (IC₅₀ = 2.7 ± 0.7 μ g/mL). The lowest α -glucosidase inhibitory activity was indicated by water extract of SE (IC₅₀ = 724.3 ± 42.9 μ g/mL) and the highest activity was demonstrated by 60% ethanol extract by UAE (IC₅₀ = 16.2 ± 2.4 μ g/mL). All extracts were analysed by GC-MS and identified metabolites like carbohydrates, fatty acids, organic acids, phenolic acids, sterols and alkane-based compounds etcetera that may possess the potential as α -glucosidase inhibitor and may attribute to the α -glucosidase inhibitory activity. © 2019, © 2019 Informa UK Limited, trading as Taylor & Francis Group.

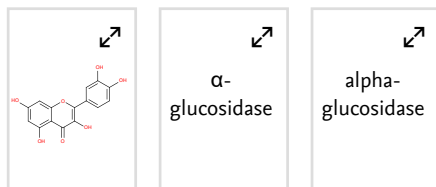
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 Topic: Antioxidants | Oenanthe | *C. caudatus*

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Chemistry database information

Substances



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
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