



Bioguided fractionation and isolation of natural inhibitors of advanced glycation end-products (AGEs) from *Calophyllum flavoramulum*

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Auteur	Ferchichi, Loubna [1], Derbré, Séverine [2], Mahmood, Khalid [3], Touré, Kaatio [4], Guilet, David [5], Litaudon, Marc [6], Awang, Khalijah [7], Hadi, A.-Hamid-A. [8], Le Ray, Anne-Marie [9], Richomme, Pascal [10]
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Résumé en anglais	<p>Advanced glycation end-products (AGEs) are associated with many pathogenic disorders such as Alzheimer's disease, pathogenesis of diabetes, atherosclerosis or endothelial dysfunction leading to cardiovascular events. Clusiaceae and Calophyllaceae families are rich in compounds like polyphenols which are able to inhibit their formation and are therefore of great interest. <i>Calophyllum flavoramulum</i> Hend. & Wyatt-Sm., a native Malaysian plant, was selected after an anti-AGEs screening conducted on DCM and MeOH extracts from plants belonging to these aforementioned families. In a first study, bioguided fractionation of the MeOH leaf extract of <i>C. flavoramulum</i> afforded amentoflavone, 3-methoxy-2-hydroxyxanthone, 3,4-dihydroxy-tetrahydrofuran-3-carboxylic acid, quercitrin, 3,4-dihydroxybenzoic acid, canophyllol and apetalactone. Amentoflavone and 3-methoxy-2-hydroxyxanthone were found to be very potent ($IC_{50} = 0.05$ and 0.06 mM respectively), while anti-AGEs activities of quercitrin and 3,4-dihydroxybenzoic acid appeared as moderately strong ($IC_{50} = 0.5$ mM). In a second study, a systematic phytochemical study of the cyclohexane, DCM and EtOAc extracts obtained from the same plant was conducted to isolate the following products: flavoramulone, 6-deoxyjacareubin, rheediachromenoxanthone, 2,3-dihydroamentoflavone and benzoic acid. 3,4-Dihydroxy-tetrahydrofuran-3-carboxylic acid and flavoramulone were isolated for the first time and their structures were identified by means of IR, MS and NMR spectrometries.</p>
URL de la notice	http://okina.univ-angers.fr/publications/ua11 [16]
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Liens

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