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# An ethnopharmacology study of Indonesian medicinal plants in Gunung Sari village as dipeptidyl peptidase-IV inhibitor

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During an ethnopharmacology study of traditional antidiabetic treatment in Gunung Sari village, Bogor region, Indonesia, fifteen traditional medicinal plants were selected, collected and prepared as crude extracts. Among fifteen plants, only three plants have previously been screened for dipeptidyl peptidase-IV (DPP-IV) inhibitors. Quantitative phytochemical analysis revealed total phenolics content (TPC) ranging from 2.27±0.16 to 5.39±0.05 mg GAE/g extract and total alkaloids content (TAC) from

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1.07±0.02 to 4.33±0.07 mg QE/g extract. In-vitro DPP-IV inhibitory activity screening showed that Piper ornatum exhibited the highest inhibition (78.11±1.35 %) and the lowest activity by Syzygium polyanthum (34.30±1.57%) at a concentration of 250 µg/mL, respectively. Analysis of chemical constituents using liquid chromatography-high resolution mass spectrometry (LC-HRMS) indicated at least eleven compounds were present in the crude extract. Among them, several peaks were tentatively assigned as picrosides and crocatis, which have previously been isolated from Piper crocatum. © Copyright Swandiny GF et al. This is an open access article distributed under the terms of the Creative Commons Attribution License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

#### Author keywords

dipeptidyl peptidase-IV; ethnopharmacology study; Pamijahan; Piper ornatum


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