SCREENING OF PHYTOCHEMICAL CONSTITUENTS AND ANTIOXIDANT ACTIVITY OF *Peperomia pellucida* AND *Premna cordifolia* LEAVES EXTRACTS

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ABSTRACT

SCREENING OF PHYTOCHEMICAL CONSTITUENTS AND ANTIOXIDANT ACTIVITY OF *Peperomia pellucida* AND *Premna cordifolia* LEAVES EXTRACTS

Herbal plants medicine is a relevant and effective part of indigenous healthcare systems which are in practice totally depends on the traditional healers. The herbal plants are an abundance sources in local area around Malaysia that are still unknown and unexploited. The aim of this study is to determine and identify the antioxidant activities and phytochemical constituents inside the *P. pellucida* and *P. cordifolia* crude leaves extracts and also to observe antioxidant activity by using HPLC-DAD system. Three types of crudes extract obtained from dry leaves of *P. pellucida* and *P. cordifolia* through sequential extraction technique using three different polarities of solvents which are hexane, chloroform and methanol. The yield percentage of extract obtained for *P. pellucida* were 6.46%, 1.61% and 2.23% followed the solvent sequences. While for *P. cordifolia,* obtained 0.25%, 10.14% and 4.23% respectively. In vitro phytochemical screening for all crude extracts was tested and positive results shown for terpenoids, flavonoid and phenol. All crude showed negative results for alkaloid, tannin and saponin components. While the total phenolic content tested results positive on both plant. The antioxidant activities of difference crude extracts were determined by using DPPH method. Results found that the inhibition percentage of DPPH in *P. pellucida* was the lowest in hexane solvent at value 18.05%. While the highest value shown in methanol solvent at 82.36%. Meanwhile inhibition percentage of DPPH in *P. cordifolia* was only detected in methanol solvent at value 47.97%. The inhibition percentage value of *P. cordifolia* is lower than *P. pellucida,* thus indicated that *P. pellucida* has the best value of inhibition percentage of DPPH for greater antioxidant activity. Methanol crude leaves extracts of both plants were analyzed through HPLC-DAD profiling to prove their antioxidant activity using ascorbic acids standard. The results found that the retention time of *P. pellucida* and *P. cordifolia* were obtained at 3.207 and 3.320 minute respectively. In conclusion, *P.pellucida* could be used as potential new sources of antioxidants as a substituted to the synthetic antioxidant. As for the *P. cordifolia,* the inhibition percentage of DPPH is lower so, it has less antioxidant effects to the consumer.