

Total phenolic and antioxidant activities of *Pouteria campechiana* fruit parts

ABSTRACT

This study aimed to evaluate the total phenolics and antioxidant capacities of the seeds, pulp and peel of *Pouteria campechiana* fruit using three extraction solvents (water, 70% methanol and 70% ethanol). Among them, 70% ethanol exhibited the best solvent for yielding highest total phenolic content (TPC), total flavonoid content (TFC) and antioxidant activities. The results showed that 70% ethanol extract from the peel contained the highest TPC(2304.7 mg gallic acid equivalent/100 g dw) while the pulp has the highest TFC(6414.03 mg rutin equivalent/100 g dw). The antioxidant activities of the pulp and peel ethanolic extracts were high as determined using 2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid) (ABTS) radical cation assay (49.60 and 49.56 mmoL TE/100 g dw) and ferric reducing antioxidant power assay (43.88 and 42.94 Fe²⁺/100 g dw) but not for seeds. However, their diphenyl-1-picrylhydrazyl (DPPH) radical scavenging activities were ~88%. Thus, the pulp and peel of *P. campechiana* fruit can be utilized as natural source for antioxidant components.

Keyword: Antioxidant activity; *Pouteria campechiana*; Solvent extraction; Total phenolics