Antioxidant and cytotoxicity activities of Hom tong banana flower extract
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Abstract: The antioxidant capacities of the extracts from different parts of Hom tong banana (Musa sapientum) flower, including stick, florets, bract, peel, banana flower and banana bud were evaluated using 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay. Total phenolic content and total flavonoid content (TPC) measured using Folin-Ciocalteu and Downs methods, respectively. Peels extract presented the highest total phenolic compounds (6.67±0.00 g GAE 100 g⁻¹ dry wt.). The lowest IC₅₀ values was found from peel and bract extracts with 25 ± 0.04 mg/L and 30.70 ± 0.03 mg/L, respectively. Banana bud extract presented the highest total flavonoids (27.30±0.071 g GAE 100 g⁻¹ dry wt.). The cytotoxicity of flower and peel extracts were studied toward a human cell derived cell line (using MTT assay). There was no toxicity for the extract at the concentration less than 100 μg/mL. Flower and peels extracts of Hom tong banana (Musa sapientum) were potentially source of natural antioxidant which can be further investigated for medicinal usage.

Keywords: Antioxidant capacity; Total phenolic content; Total flavonoid content; Antibacterial activities; Cytotoxicity