

OR-50**Cytotoxicity and Antioxidant Activities of Aqueous and Methanolic Extracts of Different Parts OF *Averrhoa Carambola***

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Averrhoa carambola family Oxalidaceae is largely found in Malaysia and many other tropical countries. This plant has hypoglycemic, hypocholesterolemic, antimicrobial, anti-inflammatory and antioxidant activities. The present study aimed to evaluate the *in vitro* cytotoxicity and antioxidant activities of aqueous and methanolic extracts of various parts of *A. carambola*. All aqueous and methanolic extracts of ripe fruit, unripe fruit, leaves and stems of *A. carambola* were found to cause no cytotoxic effect on the four cancer cell lines used (K-562, HL-60, kasumi and HCT-116). On the other hand, the methanolic extracts of stem and leaves showed higher total phenolic contents of 198.08 and 46.74 mg gallic acid equivalent (GAE)/100g extract and total flavonoid 114.8 and 36.76 mg quercetin equivalent (QE)/100g extract, respectively. Both methanolic and aqueous extracts of stem showed most potent reducing power of 0.087 and 0.042 $\mu\text{mol FeSO}_4/\text{mL}$, respectively. In contrast, the methanolic extract of stem and leaves exhibited radical scavenging activity with IC_{50} values of 6.86 and 22.84 in DPPH assay and 68.8, 23.2 $\mu\text{g/mL}$ in ABTS assay, respectively. In conclusion, methanolic extracts showed higher antioxidant capacity compared to aqueous extracts in particular, the stem and leaves extracts.

Keywords: *Averrhoa carambola*, cytotoxicity, K-562 cells, antioxidant, radical scavenging.
