

Angiotensin converting enzyme (ACE) inhibition by flavonoid-rich defatted crude extracts of *Actinidia macroserma* fruit

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Actinidia macroserma which belongs to the genus *Actinidia* of the *Actinidiaceae* family is a non-commercial type kiwifruit. This plant has its reputation to treat various diseases within Chinese traditional medicine. Recent studies have shown that the different parts of *A. macroserma* plant exhibit various biological activities. In this study, the potential application of antihypertensive activity of flavonoid rich defatted crude extracts obtained from *A. macroserma* fruit was determined by *in vitro* assay using fluorescence based biochemical reaction. The different extracts obtained from *A. macroserma* fruit were performed for the ACE inhibitory activity and results showed that they are moderately effective ACE inhibitors. Among the results obtained in the present study, it should be highlighted that the activity observed for the extract from 70% acetone by steeping method exhibited quite promising ACE inhibitory activity (lowest IC₅₀ values), as compared to the other solvent extracts tested. Based on the experimental results, kiwifruit has potential use as a cardiovascular protective agent against high blood pressure. Investigating the ACE enzyme inhibition by kiwifruits generated valuable information for supporting the general concept that flavonoids rich kiwifruits have health effects.

Keywords: Angiotensin converting enzyme, *Actinidia macroserma*, Flavonoids, Hypertension

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