Antioxidant activity of different extracts of red pitaya (Hylocereus polyrhizus) seeds.

ABSTRACT

Antioxidant activity of three different extracts (ethanolic, chloroformic, and hexanic) of red flesh pitaya (Hylocereus polyrhizus) seed using free radical scavenging assay, linoleic acid model system, and ferric thiocyanate (FTC) method was determined. Ethanolic extract inhibit 74.76% of free radicals at 1000 μg/mL, while chloroformic extract gave the highest inhibition using linoleic acid model system (98.90% at 100 μg/mL) and FTC (96.34%) method. Total phenolic and ascorbic acid contents of the seed were 13.56 ± 2.04 and 0.36 ± 0.01 mg/g, respectively, while catechin was the major flavonoid detected. In conclusion, the study showed that both polar and non-polar compounds contribute to the antioxidative activity measured.

Keyword: Red pitaya seed; Antioxidant activity; Free radical scavenging assay; Linoleic acid model system; Ferric thiocyanate method.