Total phenolics content and antioxidant activity of hot water extracts from dried Ficus deltoidea leaves

ABSTRACT

Total phenolics content and antioxidant activity of hot water extracts at temperatures ranging from 55 °C to 107 °C and several sample-to-water ratios (ranging from 1:45 to 1:120, g:ml) were determined for the dried leaves of two accessions of Ficus deltoidea. Total phenolics content and antioxidant activity had higher values in accession MFD 6. A significant difference (p <0.05) in the total phenolics content between the ratios of 1:45 and 1:120 was observed in both accessions at all temperatures tested. However only the temperature of 107 °C caused a significant difference (p <0.01) in antioxidant activity between the ratios of 1:45 and 1:120 in both accessions. A positive linear correlation (R² = 0.65–0.76) which was statistically significant (p <0.01) was demonstrated between radical scavenging activity and total phenolics content in both accessions. The data indicate that F. deltoidea leaf has potential as a good source of phenolic antioxidants.

Keyword: Ficus deltoidea; Total phenolics; Antioxidant activity; Hot water extracts; Mascotek