

Studies on physicochemical properties functional components and hypolipidemic activities of anka hea

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ABSTRACT

The functional anka health drink was prepared with the mixture of concentrated fruit of pineapple, grapefruit, grape and apple added anka extracts by the ratio of 4.5, 10 and 20%, separately(R1, R2, R3). The physicochemical characteristics, antioxidative ability, functional components and activity of lipidemic reduction of the products were determined. The results were found as the follows: It was found the product from the concentrated fruit juice added 20% anka extract had the lowest in moisture content among the products. pH values of the products decreased with increasing storage time. The titratable acidity(citric acid) was at the range between 1.57 and 1.65%. It was found the control group was different from the product added 20% anka extract significantly (p0.05). The brix of the products increased with increasing added amounts of the anka extract. The sensory test scores were found the product added 4.5% anka extract was the highest acceptability and the product added 20% anka extract was the lowest acceptability. The red absorbance of the products increased with increasing added amount of the anka extract. The antioxidant activity-DPPH radical scavenging activity, Reducing ability were increased with increasing added amount of anka extract. However, Ferrous ion-chelating activity of the drinks was not affected by the added amount of anka extract. It was also found the concentration of monacolin K was not increased with the added amount of anka extract. It was found citric acid to the highest, followed by malic acid and then lactic acid was the lowest among the concentration of organic acids of all the samples. In animal feeding trial it was found the total cholesterol content of serum of the hamsters fed with anka juice added 4.5% anka extract was 97.33 ± 3.5 (mg/dl) after induction (before feeding anka health drink) and reduced to 79.00 ± 6.89 (mg/dl) after feeding with anka health drink. This result revealed the mixed concentrated juice added 4.5% anka extract could inhibit the total cholesterol content of serum of the hamster. It also found the hamsters fed with anka juice added 4.5% anka extract could reduce the total serum triglycerides content to 134.67 ± 37.76 (mg/dl) from 142 ± 35.97 (mg/dl) after induction of before feeding anka juice.

Keywords : Monacolin K、anka、antioxidant activit

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