Storage stability of antioxidant in milk products fermented with selected kefir grain microflora

ABSTRACT

The aim of the study was to assess the antioxidant potential of goat's milk and whey from goat's milk fermented with selected bacteria strains from kefir grain (L. plantarum, L. fermentum, L. rhamnosus and L. acidophilus) with regard to fermented cow's milk with the same bacteria strains. The assessment of antioxidant potential was made by ABTS, DPPH, TPC and FRAP methods. The work also assessed metabolic activity of tested lactic acid bacteria using measurement of electrical impedance changes in the growing medium. The highest values describing the antioxidant potential were found for fermented milk by L. acidophilus. It was also found that the time of cooling storage causes significantly increasing the antioxidant potential of most analyzed samples. Metabolic activity of tested lactic acid bacteria was the highest for cow's milk. The course of curves for goat's milk and whey from goat's milk was similar, which confirms the differences between cow and goat milk.

Keyword: Goat milk; Kefir grain microflora; Antioxidant activity