

Evaluation of brans of different rice varieties for their antioxidative and antihyperglycemic potentials

ABSTRACT

The aim of this study was to compare the antioxidant and antihyperglycaemic potentials of bran extracts of seven traditional rice varieties against those of three commercial varieties. The total polyphenolic content and antioxidant activities, the α -amylase and α -glucosidase inhibitory potentials of the rice bran extracts were studied in vitro using relevant assays. The results showed that the rice bran extracts of traditional varieties namely, Beras merah and Beras hitam displayed significantly higher α -glucosidase inhibition (96.56 and 81.52%) and α -amylase inhibition (88.44 and 84.27%) than the other varieties. Being high in polyphenolic content, they tended to display better anti-oxidant capacities than the commercial varieties. Hence, brans of traditional rice varieties such Beras merah and Beras hitam could be potentially useful as raw materials for nutritional supplements and natural anti-diabetic agents.

Keyword: Antioxidant; Antihyperglycaemic; Bran extracts