PHYTOCHEMICAL SCREENING AND ANTIOXIDANT ACTIVITY OF *ORYZA SATIVA* LINN. (GLUTINOUS BLACK RICE).

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ABSTRACT

PHYTOCHEMICAL SCREENING AND ANTIOXIDANT ACTIVITY OF *ORYZA SATIVA* LINN. (GLUTINOUS BLACK RICE).

In the present study, the methanolic extract of *Oryza sativa* Linn. (Sabah glutinous black rice) was screened for their phytochemical substances, antioxidant activity and scavenging properties. The phytochemical screening revealed that alkaloid, carbohydrate, reducing sugar, saponin, phytosterol, phenol, tannin, flavonoid, protein, steroid and terpenoid are present in the pigmented glutinous black rice. The crude extract was evaluated for antioxidant activity using 2, 2-diphenyl-1-picrylhydrazyl (DPPH) assay at different concentration of pigmented rice extract (Glutinous black rice) and compared with the ascorbic acid (AA) standard. Meanwhile scavenging activity was measured by 2, 2-diphenyl-1-picrylhydrazyl (DPPH) radicals. The result indicate that the antioxidant activity of the extracts differed and was dependent on the concentration of the extract where the black rice extract shows higher scavenging activity in higher concentration of black rice extract. The highest percentage of DPPH scavenging activity was 86.82% at the concentration of 0.3mg/ml and the lowest is 78.03% with concentration 0.025mg/ml. Therefore, the Sabah glutinous black rice shows promising bioactive compounds with high nutritive values.