CYTOTOXICITY AND ANTIOXIDANT ACTIVITY OF STEM BARK EXTRACTS OF Azanza garckeana (kola of Tula)

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ABSTRACT

Plants have been used since ancient times as an important source of biologically active substances. The aim of the present study was to investigate the antioxidant potential and cytotoxicity against brine shrimp of the stem bark extract of Azanza garckeana (kola of Tula). The petroleum ether, ethyl acetate, acetone, methanol and water extracts, were obtain by serial extraction using soxhlet apparatus. The results showed that Acetone extract with LC $_{50}$ of 3.98µg/ml, methanol extract LC $_{50}$ of 47.66 µg/ml and ethyl acetate extracts LC $_{50}$ of 100 µg/ml were active extracts while water extracts with LC $_{50}$ of 138.04µg/ml is toxic where as petroleum ether extract with LC $_{50}$ value of greater than 1000 µg/ml is in active. The result for the DPPH radical scavenging activity of the stem bark extracts of Azanza garckeana showed that the methanol extracts with IC $_{50}$ value of less than 100 µg/ml and Acetone extracts with IC $_{50}$ value of 220 µg/ml. The result has proved that the plant can be used as an antioxidant by the folk of total people.

Keywords: Azanza garckeana, stem bark, cytotoxicity and antioxidant activity.