

ABSTRACT

Chromatographic separation of the roots of *Mucuna macrocarpa* led to the isolation of eight compounds. They were four triterpenoids: lupenone, lupane, betulinic acid and lupeol, two steroids: stigmasterol and β -sitosterol, one anthraquinone: vismiaquinone C, and one carbazole: murrayanine. Their structures were elucidated on the basis of spectroscopic techniques.

The crude methanolic extract was found to show strong antioxidation activity (IC_{50} 0.25 $\mu\text{g/mL}$) better than BHT (IC_{50} 0.41 $\mu\text{g/mL}$). The crude acetone extract showed good antioxidation activity with IC_{50} 1.19 $\mu\text{g/mL}$ whereas the crude dichloromethane extract showed weakly activity by 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical assay. Pure compounds showed weak antioxidative activity.

Compounds lupenone and vismiaquinone C exhibited the antibacterial activity against *Bacillus cereus*, *Pseudomonas fluorescens* and *Salmonella typhimurium* with MIC values of 32-64 $\mu\text{g/mL}$.

