Abstract

Ziziphus mucronata is a medicinal plant used traditionally for treating various diseases. The antioxidant assay for the crude extracts obtained from the berries of *Ziziphus mucronata* was carried out using DPPH (2,2-diphenyl-1-picrylhydrazyl) method. Purified antioxidant compounds were obtained by chromatographic methods and were subjected to structure elucidation using nuclear magnetic resonance (NMR). Berries of *Ziziphus mucronata* were found to have high antioxidant activity since their ethyl acetate extract had an IC_{50} value of 214.9 µg/mL and methanol extract had an IC_{50} value of 8.9 µg/mL showing significant antioxidant activity in comparison to that of the standard ascorbic acid, which was found to have an IC_{50} value of 1.5 µg/mL. Betulin, betulinic acid and ursolic acid were among the compounds isolated from the berries of *Ziziphus mucronata* and are known to possess significant antioxidant activity. They have not been known to be previously isolated from *Ziziphus mucronata*.

Keywords: Antioxidant; DPPH; ROS (reactive oxygen species).