

Abstract

Antibacterial activity was conducted using microdilution assay against wide range of microbial strains, while prothrombin time (PT), activated partial thromboplastin time (aPTT), and thrombin time (TT) tests were established utilizing standard hematological methods. Moreover, Assessment of the DNA cell cycle of breast cancer was conducted using propidium iodide (PI) and apoptosis activity was estimated by staining with Annexin-V using flow cytometry. In addition, metabolic enzymes inhibitory enzymes and antioxidant potentials were determined using *in vitro* bioassays. Micro-dilution antimicrobial assay results showed that the methanol, acetone and hexane solvents fractions have antibacterial and antifungal activities against all the screened strains. While the aqueous (RS) plant fraction has only antifungal activity against *C. albicans* and did not show any antibacterial effect. Moreover, the coagulation tests revealed a significant anticoagulant activity of all plant fractions. All fractions prolonged the clotting tests (PT, aPTT and TT) in a dose-dependent manner. However, the methanol fraction showed the highest activity in all tests.