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# Investigation of cytotoxity of *Fluggea leucopyrus* using Brine Shrimp Cytotoxity Assay

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This work presents the investigation of cytotoxic effect of the compounds present in leaves and bark of *Fluggea leucopyrus* (Katupila). *F. leucopyrus* belongs to the family Euphorbiacea, and leaves of the plants are known to possess some anti-cancer potential, and it is used as an alternative and complementary medicine in cancer therapy. The cytotoxity was assayed using Brine Shrimp lethality assay. The aqueous extracts of leaves and bark of *F. leucopyrus* was prepared and used in this assay. The tests were performed in multi-well cell culture plates in triplicates of 0, 25, 50, 100, 250, 500 and 1000 ppm concentrations of plant extracts. The second instar nauplii of brine shrimp were used, and after 24 hour of incubation period, number of survivals were recorded. The $LC_{50}$ values were calculated for the bark and leaves extracts using EPA probit analyzer and both extracts of *F.leucopyrus* showed $LC_{50}$ values of greater than 1000 ppm. The crude extracts were purified using column chromatography and the pure compounds were subjected to Brine shrimp lethality assay. It showed that the $LC_{50}$ values for the all five compounds isolated were greater than 1000 ppm. According to these results, it gives primary indication that the compounds present in the leaves and bark of *F. leucopyrus* have no cytotoxic effects to the normal tissues.

***Keywords:*** *F.leucopyrus*, cytotoxity, Brime Shrimp lethality assay, $LC_{50}$

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