ABSTRACT

These studies determined the LD$_{50}$ by acute toxicity test and examined hepatotoxic effects of 96% ethanolic extract of *Garcinia mangostana* L. pericarps.

In acute toxicity test, oral administration of the extract to Swiss albino mice at a single dose of 21 g/kg body weight produced no toxicity signs during 4 hours of observation and no animal deaths during 24 hours of observation. It could be concluded that the extract has LD$_{50}$ more than 21 g/kg body weight of mice and belongs to relative less dangerous category.

For hepatotoxicity study, the extract at 0,105; 0,315; 0,525 g/kg body weight was administered orally to male and female Wistar rats daily for 30 days. Activity of glutamate oxaloacetate aminotransferase (GOT) and glutamate pyruvate aminotransferase (GPT) were analyzed after 30 days of treatment, so was liver histopathology profile. Activities of GOT and GPT were statistically analyzed using ANAVA 95%. The damage of liver cells both degeneration and necrosis was recorded, scored and statistically analyzed using the Kruskal-Wallis test.

The Sig value of GOT statistically analysis was higher than 0,05. It means that there was no significant difference between groups. The Sig value of GPT statistically analysis was higher than 0,05 too. The result of Kruskal-Wallis analysis for degeneration value showed that Asymp. Sig. was higher than 0,05. It means that there was no significant difference between groups. The result of analysis for necrosis value showed that Asymp. Sig. was higher than 0,05 too. It means that there was no significant difference between groups.

According to those three parameters, could be concluded the extract with dose equivalent to 0,105; 0,315; 0,525 g/kg body weight gave no hepatotoxic effect on rats liver.

**Keywords**: *Garcinia mangostana* L, acute toxicity, LD50, hepatotoxic effects, GOT, GPT