ABSTRACT

IN VITRO TOXICITY TEST OF INFUSION AND 70% ETHANOLIC EXTRACT OF Graptophyllum pictum (L.) Griff. ON RED BLOOD CELLS USING SPECTROPHOTOMETER UV-Vis

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Graptophyllum pictum leaves are traditionally used for the haemorrhoid. The objective of this research is to determine the interaction of the infusion and 70% ethanolic extract of Graptophyllum pictum leaves with human red blood cells using spectrophotometer UV-Vis.

The toxicity of the infusion and 70% ethanolic extract of Graptophyllum pictum leaves in human red blood cells was measured by in vitro hemolysis tests. The absorbance of hemoglobin release was read by spectrophotometer UV-Vis at 576 nm.

The infusion and 70% ethanolic extract of Graptophyllum pictum leaves had no toxicity effect on human red blood cells at 1 – 1,000 ppm. The hemolysis percentage of the infusion and 70% ethanolic extract of Graptophyllum pictum leaves at 1,000 ppm are 6.281% and 5.292% respectively. The hemolysis percentage of both samples are < 10%. The value of HC50 can not be determined. Based on phytochemical screening test, alkaloid presence in 70% ethanolic extract but absence in the infusion.

The conclusion of this research is the infusion and 70% ethanolic extract of Graptophyllum pictum leaves are not toxic.

Keywords: Graptophyllum pictum, Spectrophotometer UV-Vis, Hemolysis