

ABSTRACT

**TOXOCITY TEST OF BELIMBING WULUH
(*Averrhoa bilimbi* L) LEAVES EXTRACT STANDARDIZED
QUERCETIN IN WHITE MICE (*Mus musculus*)**

Belimbing wuluh leaves (*Averrhoa bilimbi* L) contains alkaloid compounds, carbohydrates, flavonoids, glycosides, phenols, steroids and tannins. Flavonoids are a group of organic compounds that are spread evenly throughout the plant part of one of the components is quercetin compound. The quercetin contained in the belimbing wuluh leaf has several pharmacological effects, and to support its use in the treatment it is important to evaluate the safety of quercetin through an acute toxicity test. The aim of this study is to determine the toxicity of belimbing wuluh leaf extract (*Averrhoa bilimbi* L) standardized quercetin in white mice (*Mus musculus*).

The method used in determining the level of quercetin in leaf extract using UV Spectrophotometry. The toxicity test method uses conventional methods which use 4 different doses. The given dose of standarized extract includes 200 mg / kgBW; 600 mg / kgBW; 1800 mg / kgBW; 5400 mg / kgBW The experimental animal used is white mouse (*Mus musculus*) and the number mice used is six per group.

In this study, the level of quercetin in the extract of leaves of belimbing wuluh was $5,42 \pm 1,77$ (% ; w/w). Toxicity test results showed no mortality in experimental animals in the observation 24 hours and 48 hours. Mice mortality data were analyzed using three methods: Wheil method, probit method in IBM SPSS Statistic 23 and regression method. The analysis results show that LD₅₀ value can not be determined because there is no animal mortality. Additional observations were performed on weight changes indicated by weight gain after administration of the test preparation. Other observations were made at locomotoric activity after 24 hours administration of the test preparation. Results showed no change or decrease in animal experiments try. The above data concluded that the LD₅₀ value of more than 5400 mg / KgBB showed the extract of leaves of wuluh belimbing wuluh practically not toxic.

Keyword: *Averrhoa bilimbi* L leaves extract, quercetin, toxicity test, LD₅₀, UV Spectrophotometry.