

ABSTRACT**DETERMINATION OF URIC ACID LEVEL IN THE ADMINISTRATION OF BELIMBING WULUH (*Averrhoa bilimbi* L) LEAVES EXTRACT QUERCETIN STANDARDIZED IN WHITE MICE (*Mus musculus*)**

Belimbing wuluhleaves (*Averrhoa bilimbi* L) contain quercetin which has the ability to inhibit an enzyme called xanthine oxidase. The enzyme can transform purine into uric acid, thus belimbing wuluhleaves can reduce uric acid level on mice. In this study, the belimbing wuluh leaves was validated and the level of quercetin was determined so that the standardized belimbing wuluh leaves can be obtained. The validation comprised of selectivity, linearity, precision and accuracy. The result indicated that the quercetin level in belimbing wuluh leaves was $5,42 \pm 1,77$ (% ; w/w) .

The sample of this study were six groups of mice as treatment group with 7 replications on 2-3 months of male mice which had been induced by potassium oxonate (7 mg/20g body weight of mice). The treatment group consist of negative control (CMC-sodium 0,3%), positive control 1 (allopurinol 0,52 mg/20 g body weight of mice), positive control 2 (quercetin 0,39 mg/20 g body weight of mice), and test group 1, 2, 3 with the administration of standardized belimbing wuluh extract dose of 0,13; 0,39 and 0,65 mg/20 g body weight of mice. The treatment had been administered for 21 days with the measurement of uric acid every 3 days. The result was analyzed by oneway ANOVA with significant value of 5%.

The result indicated that standardized belimbing wuluh leaves extract with the dose of 0,65 mg/20 g body weight of mice can reduce uric acid level significantly after 13 days of administration ($p < 0,05$).

Keywords: *Averrhoa bilimbi* L leaves extract, quercetin assay, uric acid, white mice, UV Spectrophotometry.