

ABSTRACT

DETERMINATION OF COLCHICINE IN LIQUID SYRUP OF KEMBANG SUNGSANG (*Gloriosa superba* L.) LEAF BY TLC-DENSITOMETRY

Quantitative analysis related with the determination of how much of a certain substance contained in a sample. In an analysis, a series of steps must be followed for the purpose of analysis by using a specific technique called the method of analysis. Validation method performed to ensure that an analytical method meets the criteria and requirements of good method of analysis. Liquid syrup of *Gloriosa superba* L. leaf is a new innovation product and there was no method validation applied before. The aim of this study was determining colchicine in liquid syrup of *G. superba* L. leaf. Validation is done first by setting the parameter category I, accuracy, precision, specificity, linearity and range. Analysis method was using TLC-Densitometry with Silica gel 60 F₂₅₄ layers and a mixture of chloroform:diethylamin (8:2) as mobile phase. The result shows coefficient of correlation (r) were 0,9975 (r table was 0,917 for n = 6 and $\alpha = 0,01$) with the linear regression $y = 17,8521x + 10014,14$; $V_{x0} = 2,68\%$; and range 2,55. The recovery was $94,06 \pm 8,53 \%$ with coefficient of variation of 1,44%. Application of this method for determination colchicine from liquid syrup of *G. superba* L. leaf showed that average content of colchicine is 0,4847 gram/ 10 ml. As conclusion, this method was valid for validation of colchicine in sample.

Keywords : Colchicine Syrup; TLC-Densitometry; *Gloriosa superba* L.; Validation Method