**VALIDATION OF ANALYTICAL METHOD AND DETERMINATION**

**OF AMOUNT FLAVONOID CONTENT IN WHITE SAFFRON CAPSULE (*Curcuma mangga* Val.) USING SPECTROPHOTOMETRY METHOD**

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**ABSTRACT**

Flavonoids are found in nearly all plant parts that have a wide range of bioactivity in accordance with the type of flavonoid. White saffron as a plant species are cultivated as a medicinal plant. White saffron chemical constituents include flavonoids. The purpose of this study was to determine the levels of total flavonoid white saffron capsule by spectrophotometric method that has been validated.

Validation of methods of analysis refers to the International Conference on Harmonization (ICH). Sample preparation by weighing 1,0 g sample diluted to 10 mL with ethanol. Make sonication then filtered with Whatman filter paper 41. Then take 2,0 mL of the filtrate add 3 mL of distilled water and 0,3 mL of Sodium Nitrite 10% and allow 5 minutes. Then add 0,3 ml of 10% Aluminum Chloride and let stand 5 minutes. Then add 4 mL of 10% sodium hydroxide and add distilled water until the proper mark on the flask 10 mL and let stand 15 minutes. Read the absorbance at λ 510 nM.

Methods of analysis results with the linear correlation coefficient (r) ˃ 0,995 and the coefficient of determination (r2) ˃ 0,995. Value limit of detection of 0,0038 mg / mL and quantitation limit of 0,0128 mg / mL. Relative standard deviation obtained still within the permitted limit. The results of the analysis of commercial white turmeric capsules A = 0,8 mg / g, B = 2,5 mg / g, C = 0,4 mg / g, D = 0,2 mg / g and E = 0,6 mg / g , Statistical analysis showed significantly different values ​​with a confidence level (P <0,05) in the determination of the levels of flavonoids significantly

**Keywords** : white saffron capsules, method validation, flavonoid, spectrophotometry