STANDARDISASI DAN PROFIL KLT-DENSITOMETRI DAN FTIR SIMPLISIA PERIKARPIUM MANGGIS (*Garcinia mangostana* L.)

PRAMUDITA RIWANTI

Prof. Dr. Sukardiman, Apt., MS.

KKB KK FF 328 11 Riw s

ABSTRACT

Pericarpium of mangosteen (*Garcinia mangostana* Linn.) of which a major active component is α-mangostin, has been popularly used as anticancer which mechanism inactivated mitochondria of cancer cell. From its uses, the pericarpium will be developed as standarized herbal drug. The source and quality of raw materials play a pivotal role in guaranteeing the quality and stability of herbal preparations. Thus, proper standardization and quality control of raw material and the herbal preparations themselves should be carried out.
This study was conducted to standarize the raw material of mangosteen and to see the chromathograme profile obtained by TLC-Densitometric and FTIR in pericarpium of mangosteen collected from Trenggalek. In this stage, specific and non specific parameters of raw material are conducted.
The result showed non-specific parameters of raw material were total ash was (2,48 ± 0,06)%, acid insoluble ash was (2,31±0,18)%, water soluble ash was (0,73±0,05)%, water content was (7,58±0,30)% and loss on drying was (10,41±0,03)%. For Pb content was 0,178 ppm, Hg and As content were 0, Cd content was 0,012 ppm and Cu content was 0,142 ppm.
The specific parameters of raw materials showed that water soluble extractive substance was (11,01±0,42)%w/w, alcohol soluble extractive substance was (13,14±0,42)%w/w. The linearity was found over the range of 50-200 µg/ml with regression coefficient (*r*) 0.9996. Precisions showed relative standard deviation (%RSD) 4,39 %. Accuracy of the method was determined by a recovery study and the average was found to be 99,19 %. The total mangostin contents in all dried powder samples were in the range of 13.94±0.8 % w/w. This information will be useful as a guidance for standardization of pericarpium *Garcinia mangostana* L.

Keywords *: Garcinia mangostana,* mangosteen, standardization, α-mangostin