ABSTRACT

DETERMINATION OF TOTAL PHENOL CONTENT IN ROSEMARY LEAVES (*Rosmarinus officinalis* L.) MACERATED WITH METHANOL USING UV-VIS SPECTROPHOTOMETRIC METHOD

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All parts of the rosemary plant (*Rosmarinus officinalis* L.) including leaves, flower shoots, and twigs can produce essential oils and oleoresins that are useful for traditional and modern medicine. Rosemary leaves (*Rosmarinus officinalis* L.) contain various polyphenolic compounds including flavonoid compounds carnosol acid, rosmadial, rosmaniac acid and rosmaridipenol which have potential as medicinal and antiviral ingredients. This study aims to determine the total phenol content of rosemary methanol extract by maceration method using uv-vis spectrophotometric method. Thick extract of rosemary leaves (*Rosmarinus officinalis* L.) was analyzed for total phenol content using uv-vis spectrophotometry. The initial step taken was the determination of operating time with 210 ppm gallic acid solution, obtained maximum absorbance at minute 100, then determined the maximum wavelength with a range of 600-800 nm, obtained a maximum absorbance of 747 nm, then determined the absorbance of gallic acid standard solution, the absorbance results then calculated the linear regression equation. The result obtained was y = 0,0039x – 0,1146. Then the thick methanol extract of rosemary leaves was weighed 35 mg each and replicated 3 times, then the absorbance was measured using uv-vis spectrophotometry at a maximum wavelength of 747 nm. The results showed that the average total phenol content of methanol extract of rosemary leaves was 37,3675 mg GAE/gram extract.

Keywords : Rosemary leaves (*Rosmarinus officinalis* L.), Methanol, Phenol