Journal of Inventions in Biomedical and Pharmaceutical Sciences (JIBPS)
ISSN: 2456-818X
Available Online at www.jibps.com

Research article

Effectiveness of antioxidant and anticoligenase activity of 70% ethanolic extracts of Kemangi leaves (*Ocimum Basilicum*)

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Key words: FRAP, Eugenol, Antioxidant, Anticoligenase.

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Vol. 4 (4), 12-17, Oct-Dec, 2019.

Abstract

Free radicals are one form of reactive oxygen compounds, which are generally known as compounds that have unpaired electrons. Kemangi leaves are used as an aphrodisiac because they contain araginin which can strengthen sperm resistance and prevent infertility. Besides araginin, Kemangi leaves also contain other secondary metabolites such as essential oils, phytosterols, alkaloids, phenolic compounds, tannins, lignin, saponins, flavonoids, terpenoids and anthraquinones. Phytochemical screening results of 70% ethanol extract of kemangi herbs themselves showed the presence of secondary metabolites of flavonoids, saponins, tannins and triterpenoids / steroids. In this study, antioxidant activity was tested using the FRAP (Ferric Reducing Antioxidant Power) method, with concentrations of kemangi leaf extract and comparative compounds Euginol each concentration of 1000 µL/ml, 5000 µL/ml, 250 µL/ml, and 125 µL/ml, 62.50 µL/ml, and 31.25 µL/ml measured at 745 nm wavelength and collagenase inhibition test with ethanol extract of kemangi leaves with a comparison of eugenol compounds measured at a wavelength of 335 nm. The FRAP antioxidant activity results obtained based on IC_{50} Eugenol value of 261.36 µg/ml and Kemangi leaf extract at 111.32 µg/ml, antolagenagenase from Eugenol at 255.32 µg/ml and Kemangi leaf extract at 110.65 µ/ml.