INVENTARISASI SENYAWA ANTIOKSIDAN PADA EKSTRAK TANAMAN BUASBUAS (*Premna pubescens.* Blume) DENGAN PENDEKATAN KROMATOGRAFI GAS

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui dan membandingkan jenis senyawa antioksidan yang terdapat pada daun muda, daun tua, tangkai daun, dan buah buasbuas (*Premna pubescens* Blume) dengan metode "*Gas Chromatography Gas Mass Spectrometry"* (GC-MS). Masing masing sampel diekstrak menggunakan metode maserasi dengan pelarut etanol 96% hingga menjadi pasta. Ekstrak di analisis dengan GC-MS. Data yang diperoleh dari hasil analisis GC-MS di identifikasi menggunakan software Pubchem *(https://pubchem.ncbi.nlm.nih.gov)*. Hasil analisis Pubchem menunjukkan bahwa bagian tumbuhan yang paling banyak menghasilkan senyawa antioksidan adalah daun muda sebanyak 3 jenis senyawa antioksidan, yaitu 2-dodecylisoquinolin-2-ium;bromide, [5-(4-carbamoyl -5-formamidoimidazol-1-yl)-3, 4-dihydroxyoxolan-2-yl]methyl dihydrogen phosphate, 2-(4-chlorophenyl)-4-methylpentane-2,4-diol. Bagian daun tua buasbuas memiliki 1 jenis senyawa antioksidan yaitu 9H-fluorene-2,9-diamine. Bagian tangkai daun buasbuas memiliki 1 jenis senyawa antioksidan yaitu prop-2-enoxymethylbenzene. Bagian buah buasbuas memiliki 1 jenis senyawa antioksidan yaitu 2-(16-acetyloxy-3,11-dihydroxy- 4,8,10,14 -tetramethyl - 2,3,4,5,6,7,9,11,12,13,15,16-dodecahydro - 1H cyclopenta [a] phenanthren-17-ylidene)-6-methylhept-5-enoic acid. Kesimpulan dari penelitian ini adalah kandungan senyawa antioksidan paling banyak terdapat pada daun muda.

Kata kunci: Senyawa bioaktif, Senyawa antioksidan, Buasbuas (Premna pubescens. Blume), Gas Chromatography Mass Spectrometry, Pubchem.

THE INVENTORY OF ANTIOXIDANT COMPUNDS IN THE EXTRACT BUASBUAS (*Premna pubescens* Blume) USING GAS CHROMATOGRAPHY METHODS

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ABSTRACT

The aim of this study is to know and compare the type of antioxidant compounds which cotained in the young leaves, mature leaves, stem leaves, and fruits buasbuas With *"Gas Chromatography Mass Spectrometry" (GC-MS)* methods. Each sample was extracted used macerated with 96% ethanol solvent until became paste. The extracts was analysed by GC-MS. The results of GC-MS identified by *software Pubchem (https://pubchem.ncbi.nlm.nih.gov*. Pubchem analysis results showed that the most abundant plant parts produce antioxidant compounds are the young leaves as many as 3 different types of antioxidant compounds, namely 2-dodecylisoquinolin-2-ium, bromide; [5-(4-carbamoyl-5-formamidoimidazol-1-yl)-3, 4-dihydroxyoxolan-2-yl] methyl dihydrogen phosphate, 2-(4-chlorophenyl)-4-methylpentane-2.4-diol. Part of the old leaves buasbuas has 1 type of antioxidant compounds, namely 9 h-fluorene-2.9-diamine. Stem leaves part has 1 type of antioxidant compounds, namely prop-2-enoxymethylbenzene. Fruits has 1 type of antioxidant compounds, namely 2-(16-acetyloxy-3.11-dihydroxy-4, 8, 10, 14-tetramethyl -2,3 .7 .9 .6 .5, 4, 11, 12, 13, 15,16 dodecahydro-1 h-cyclopenta [a] phenanthren-17-ylidene)-6-methylhept-5-enoic acid. Conclusion of this research is the most antioxidant compounds are present in young leaves.

Keywords: *Bioactive compounds, antioxidant compound, Buasbuas (Premna pubescens Blume), Gas Chromatography Mass Spectrometry, Pubchem*