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IDENTIFICATION OF COMPOUNDS CONTAINED IN METALLIFER EXTRACTS OF GOLOBE TRUNKS MARBLES (*Etlingera Alba (Blume)* A.D. Poulsen)

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ABSTRACT

Traditional medicine has long been known and used to treat various diseases. Already since ancient times, many types of plants used to treat disease. The purpose of this research is to know the compounds contained in the Bone of Golobe Kelereng.

The results of this study contain compounds that have the potential to cure diseases: *Methoxyeugenol 16,81%, (2,3,4,6-Tetrafluoro-5-Methoxyphenyl) Methanol1,57%, 2,2-Diethylamino-Oxazolimo-1,3,5 -Triazine 30,69%, 5-Isoprophenyloxy methylene-3-3-dimethyl cyclohexanone 3,00%, 1- (4-Methoxyphenyl) -3-Phenyl-2-Pyrazoline 10,83%, 4H-pyrido 1,2alpyrimidine-3 -carboxylic acid, 1,6,7,8,9,9a-hexahydro-1,6-dimethyl-4-oxo-ethyl ester 1,22%, Hexadecadienoic acid 4,56%, Phytol 2,94%, 2-Choloro- 3-fluopro-2-Quinolone 1.25%, 9.12-Octadecadienoic acid (zz) 3.90%.*

The conclusions of the research results obtained by researchers in the extract of methanol Batang Golobe Kelereng (*Etlingera Alba (Blume*) A.D. Poulsen) using GC-MS tools found compounds that are beneficial to health and can treat diseases such as cholesterol, antibacterial, antifungi and even cancer.

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INTRODUCTION

Health is the welfare of every living creature where today the level of health faces very heavy challenges. One of the causes is increasing medical costs, this can worsen the quality of life and public health. Along with the increasing needs of the community for medicine, people generally prefer to achieve health degrees by using traditional medicines or herbal medicines.

With the development of science and technology, it is very possible in the world of medicine to experience changes and progress. Traditional medicine that was originally considered as an ancient treatment method has now begun in the lyrics and research on the content of natural ingredients.

Zingebereceae plants are a group of chronic herbs, some species can grow to a height of 10 meters. The zinegebereceae tribe consists of the parts of the roots, stems, leaves, flowers and fruit where the stem consists of erect stems and rhizomes that grow from erect stems extending horizontally on the soil surface.

METHODS

The type of research carried out is experimental research that will be carried out at the Integrated Laboratory of Pharmacy Study Program Halmahera Health Sciences.

Research Tools and Materials

a. Tool

1. Oven
2. Stirring rod
3. Chemical glasses
4. Measuring cup
5. Bunsen
6. Erlenmeyer
7. Rotavator
8. Three feet
9. Aluminum foil
10. Filter paper
11. Blender
12. 65 mesh sieve
13. GC-MS tool

b. Material

1. Golobe Rod Marbles (Etlingera Alba (Blume) A.D. Poulsen)
2. Methanol

PROCEDURE

Making of Golobe marbles extract (Etlingera Alba (Blume) A.D. Poulsen) The steps of making a Golobe fruit extract are:

1. Golobe stems taken which are still fresh and collected and washed with running water.
2. After washing the Golobe stick in small pieces (made in the form of a chopper) and aerated on newsprint.
3. Golobe stems that have been made with a weight of about 1 kg then dried without being exposed to direct sunlight to dry.
4. Golobe rods of dried marbles are weighed and obtained by weight of 600gr then made into powder with pollinating equipment until smooth.
5. Golobe stem powder that has been finely sifted and weighed then put in a container and labeled.
6. Golobe stem powder is put into a maceration container and then poured methanol liquid liquid through the Golobe powder Marbles.
7. Cover and leave for 7 days protected from sunlight by making a stir every day.
8. After 7 days, strain and residue are squeezed.
9. Golobe stem residue plus enough liquid liquid to stir and stir.
10. The container is closed and left for 3-4 days and protected from sunlight.
11. After 3-4 days, separate it by filtering it.
12. The liquid extract obtained is evaporated on a water bath until a thick extract is obtained.
13. Golobe stem thick extract The marbles obtained are weighed and labeled.

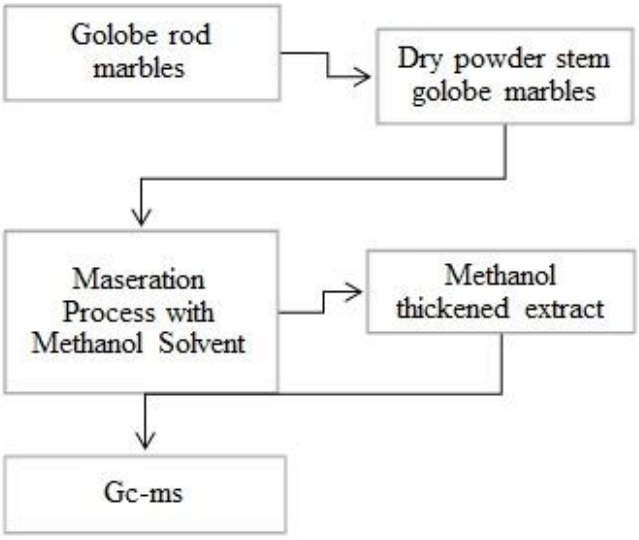

Figure 1. Workflow Identification Golobe Rod Marbles (Etlingera Alba (Blume) A.D Poulsen).

RESULTS

Sampling and Making of Golobe Rods for Marbles (Etlingera Alba (Blume) A.D Poulsen) Golobe Plants Marbles have perfect plant structures that have roots, stems, leaves, flowers, and fruit. Sampling Batang Golobe Marbles on 2 July 2018 at 09:45 WIT in Lolori village. After the Golobe stem is harvested, it is washed with running water, after being washed Golobe Stems The marbles are weighed with a wet weight of 800 grams, after weighing the Golobe Stems are chopped and placed in the appropriate container, after which they are dried in the sun at 7:00 a.m. until 10:00 the sample is completely dry, after drying the sample is weighed again with a dry weight of 300 grams.

Samples that have been dried are ground by using a blender to obtain powder, after which the sample is sifted to get a fine powder then weigh the sample and get a weight of 100 grams.

After that the sample was dissolved in methanol with a ratio of 1 gram of sample in 100 ml of methanol (1:10), for 5 days of maceration after the filter was filtered the sample was taken and the residue was removed, after which it was evaporated with a water bath until a thick extract was obtained.

Table 1. Results of Analysis of Compounds of Golobe Thickened Extract of Marbles (Etlingera Alba (Blume) A.D Poulsen.

SAMPLE	COMPOUND	(%)
Golobe Marbles	*Methoxyeugenol*	16,81
	(2,3,4,6-Tetrafluoro-5-Methoxyphenyl) Metanol	1,57
	2,2-Diethylamino-Oxazolimo-1,3,5-Triazine	30,69
	5-Isoprophenyloxymethylene-3-3-dimethyl-cyclohexanone	3,00
	1-(4-Methoxyphenyl)-3-Phenyl-2-Pyrazoline	10,83
	9,12-Octadecadienoic acid(z-z)	3,90
	Hexadecadienoic acid	4,56
	Phytol	2,94
	2-Choloro-3-flupro-2-Quinolone	1,25
	4H–pyridol[1,2-a]pyrimidine-3 carboxylic acid,1,6.7,8,9,9a-hexahydro-1,6-dimethyl-4-oxo-ethyl ester	1,22

DISCUSSION

Research using GC-MS tools to determine the compounds contained in methanol extract Golobe marbles stems (Etlingera Alba (Blume) AD Poulsen), has been shown to contain Methoxyeugenol compounds 16.81%, (2,3,4,6-Tetrafluoro -5-Methoxyphenyl) Methanol 1.57%, 2,2-Diethylamino-Oxazolimo-1,3,5-Triazine30,69%, 5- Isoprophenyloxy methylene -3 -3-dimethyl-cyclohexanone 3,00%, 1- (4-Methoxyphenyl) -3-Phenyl-2-Pyrazoline10.83%, 4H-pyridol1, 2alpyrimidine-3-carboxylic acid,1,6.7,8,9,9a-hexahydro-1,6-dimethyl-4-oxo-ethyl ester 1.22%, Hexadecadienoic acid 4.56%, Phytol 2.94%, 2-Choloro-3-fluopro- 2-Quinolone 1.25%, 9.12-Octadecadienoic acid (zz) 3.90%.

The compounds contained in the Batang Golobe Marbles have the potential to treat and prevent diseases such as Cancer, Antibacterial, Cholesterol, Antifungals and so on. Based on previous research conducted by Averous F. Budiadji, Arend L. Mapanawang, Dellya Sedeng et al (2016), in researching the compounds of Hexadecadienoic Acid contained in Halobe Halmahera fruit which has the potential as an antifungal and used in cosmetics. Research conducted by Bernard T Fambrene, Arend L. Mapanawang et al (2017), on the extract of pangi leaves contained Octadecadienoic Acid compounds which have medicinal properties to treat cholesterol.

CONCLUSION

Based on the research results obtained by researchers in methanol extract Golobe Rod Marbles (*Etlingera Alba (Blume)* A.D Poulsen) using GC-MS tools found compounds that are beneficial to health and can treat diseases such as cholesterol, antibacterial, antifungal and even cancer.

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