

**AKTIVITAS SEDIAAN GRANUL KOMBINASI TANAMAN  
DAUN SELEDRI (*Apium graveolens* L.), DAUN MANGGIS  
(*Garcinia mangostana* L), DAN DAUN SALAM (*Syzygium  
polyanthum*) TERHADAP DISLIPIDEMIA PADA  
MENCIT METODE *FREEZE DRYING***

**SKRIPSI**

Diajukan sebagai salah satu syarat untuk memperoleh gelar sarjana farmasi  
pada program studi S1-Farmasi



**TRISNA LESTARI**

**31119115**

**PROGRAM STUDI S1 FARMASI  
FAKULTAS FARMASI  
UNIVERSITAS BAKTI TUNAS HUSADA  
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## ABSTRAK

Tanaman daun seledri (*Apium graveolens* L.) daun manggis (*Garcinia mangostana* L) dan daun Salam (*Syzygium polyanthum*) memiliki efek antihiperlipidemia yaitu menurunkan kadar kolesterol total, LDL, trigliserida serta meningkatkan kadar HDL. Penelitian ini bertujuan untuk membuat *integrated food therapy product* yaitu berupa sediaan granul yang memiliki potensi sebagai antihiperlipidemia. Dosis pada penelitian ini digunakan dari dosis terbaik penelitian sebelumnya yaitu Aryani&Riyandry (2019), Adam (2015), dan Kartikaningrum (2018). Dibuat sediaan infusa pada ke tiga tanaman yang selanjutnya dikeringkan menggunakan metode *Freeze drying* sampai diperoleh ekstrak kering yang siap dibuat granul. Hewan yang digunakan adalah mencit sebanyak 42 ekor yang terbagi ke dalam 7 kelompok dengan masing-masing sebanyak 4 ekor. Seluruh kelompok kecuali kelompok normal dibuat hiperlipidemia dengan diinduksi menggunakan PTU dan MLT setiap hari selama 14 hari. Pada hari ke-15 dilakukan pemeriksaan kadar kolesterol total, LDL, HDL, dan trigliserida. Kemudian dilanjut pada hari ke-16 diberi sediaan dengan masing-masing kelompok normal (pakan+air), kelompok kontrol positif(simvastatin), kelompok kontrol negative(placebo), dosis uji I (sediaan granul daun seledri 64mg/20g BB mencit), dosis uji II (sediaan granul daun manggis 600mg/20g BB mencit), dosis uji III (sediaan granul daun salam 300mg/20g BB mencit, dan dosis uji IV (kombinasi sediaan granul daun seledri 64mg/20g BB mencit+daun manggis 600mg/20g BB mencit+daun salam 300mg/20g BB mencit) selama 14 hari. Pada hari ke-30 dilakukan pemeriksaan Kembali terhadap kadar kolesterol total, LDL, HDL, dan trigliserida. Di dapat hasil *freeze drying* daun seledri sebanyak 7,99 g, *freeze drying* daun manggis sebanyak 12,55 g, dan *freeze drying* daun salam sebanyak 2,97 g. Hasil penelitian menunjukkan dosis uji IV (kombinasi) memiliki aktivitas antihiperlipidemia terbaik yang berbeda signifikan dengan kontrol negatif ( $p < 0,05$ ).

**Kata kunci :** sediaan granul, daun seledri, daun manggis, daun salam metode *freeze drying*, antihiperlipidemia

## ABSTRACT

*Celery leaves (Apium graveolens L.) mangosteen leaves (Garcinia mangostana L) and bay leaves (Syzygium polyanthum) have antihyperlipidemic effects, namely lowering total cholesterol, LDL, triglycerides and increasing HDL levels. This study aims to make an integrated food therapy product, namely in the form of a granule preparation that has potential as an antihyperlipidemic. The dose in this study was used from the best dose of previous research, namely Aryani & Riyandry (2019), Adam (2015), and Kartikaningrum (2018). Infusion preparations were made on the three plants which were then dried using the Freeze drying method until dry extracts were obtained which were ready to be made into granules. The animals used were 42 mice which were divided into 7 groups with 4 mice each. All groups except the normal group were hyperlipidemic by being induced using PTU and MLT every day for 14 days. On the 15th day, total cholesterol, LDL, HDL and triglyceride levels were examined. Then continued on the 16th day given preparations with each normal group (feed + water), positive control group (simvastatin), negative control group (placebo), test dose I (celery leaf granule preparation 64 mg/20 g BW mice), test dose II (mangosteen leaf granule preparation 600 mg/20 g BW mice), test dose III (bay leaf granule preparation 300 mg/20 g BW mice, and test dose IV (combination of celery leaf granule preparation 64 mg/20 g BW mice + mangosteen leaf 600 mg/20 g BW of mice + bay leaves 300 mg/20 g BW of mice) for 14 days. On the 30th day, another examination was carried out for total cholesterol, LDL, HDL, and triglyceride levels. The results obtained were freeze drying of 7.99 g of celery leaves, freeze drying mangosteen leaves as much as 12.55 g, and freeze dried bay leaves as much as 2.97 g. The results showed that the IV test dose (combination) had the best antihyperlipidemic activity which was significantly different from the negative control ( $p < 0.05$ ).*

**Keywords:** *granule preparations, celery leaves, mangosteen leaves, bay leaves freeze drying method, antihyperdyslipidemia*