

## ABSTRAK

**RIRIN PINARINGSIH., 2023.,** *Uji Aktivitas Antikolesterol Ekstrak Etanol Kulit Jeruk Bali (Citrus Maxima)* (Dibimbing oleh apt. Andi Emelda, S.Si., M.Si. dan apt. Harti Widiastuti, S.Farm., M.Farm).

Dampak yang terjadi jika kolesterol total dalam darah tinggi dapat mengakibatkan hiperkolesterol dan jika berlanjut dalam waktu lama memicu timbulnya hipertensi, stroke, jantung koroner, dan obesitas. Salah satu tumbuhan yang berpotensi sebagai antikolesterol adalah kulit jeruk bali (*Citrus maxima*). Kulit jeruk bali (*Citrus maxima*) memiliki kandungan kimia seperti alkaloid, flavonoid, dan tannin. Penelitian ini bertujuan untuk menentukan aktivitas antikolesterol ekstrak etanol kulit jeruk bali (*Citrus maxima*) secara *in vitro* serta menentukan nilai EC<sub>50</sub>. Sampel diekstraksi dengan metode maserasi menggunakan pelarut etanol 96% dengan persen rendamen ekstrak 12,3%. Ekstrak yang diperoleh dianalisis aktivitas antikolesterol dengan metode Lieberman-Burchard dengan menggunakan pengukuran spektrofotometer UV-Vis dengan panjang gelombang maksimum 623 nm. Hasil penelitian menunjukkan ekstrak etanol kulit jeruk bali (*Citrus maxima*) memiliki aktivitas antikolesterol secara *in vitro*. Nilai EC<sub>50</sub> ekstrak etanol kulit jeruk bali (*Citrus maxima*) yaitu sebesar 469,40 ppm.

**Kata Kunci** : Antikolesterol, Kulit jeruk bali, Spektrofotometere, Ekstrak etanol

## ABSTRACT

**RIRIN PINARINGSIH.** *Anticholesterol Assay of Ethanol Extract of Pomelo Peel (Citrus maxima). (Supervised by Andi Emelda and Harti Widiastuti)*

Elevated total cholesterol levels in the bloodstream pose significant health risks, including hypercholesterolemia, hypertension, stroke, coronary heart disease, and obesity. Natural remedies, particularly plant-based solutions, offer potential therapeutic benefits. The pomelo (*Citrus maxima*), with its rich chemical composition, including alkaloids, flavonoids, and tannins, presents a viable candidate for natural cholesterol-lowering interventions. This study employed the in vitro analysis to examine the anticholesterol activity from the ethanol extract of pomelo peel and determine the EC<sub>50</sub> value. The research employed a maceration extraction technique using 96% ethanol, yielding a 12.3% extract. The cholesterol-lowering activity of this extract was analyzed using the Lieberman-Burchard method. Quantitative assessment was facilitated by UV-Vis, focusing on the maximum absorbance at 623 nm. The results indicated that the ethanol extract of pomelo peel exhibited significant cholesterol-lowering activity by in vitro analysis and the EC<sub>50</sub> value was 469.40 ppm, highlighting its potential efficacy.

**Keywords:** Anticholesterol, *Citrus maxima* Peel, Spectrophotometry, Ethanol Extract