PENGARUH EKSTRAK DAUN SUKUN (*Artocarpus altilis*) TERHADAP KADAR *DIPEPTIDYL PEPTIDASE* 4 (DPP4) PADA TIKUS (*Rattus norvegicus*) MODEL DIET TINGGI LEMAK

ABSTRAK

Latar Belakang: Diet tinggi lemak dapat meningkatkan kadar enzim *dipeptidyl peptidase* 4 (DPP4) yang berperan dalam inflamasi dan metabolisme glukosa. Ekstrak daun sukun (*Artocarpus altilis*) mengandung senyawa bioaktif yang bersifat antioksidan dan antiinflamasi sehingga berpotensi menurunkan kadar DPP4. **Tujuan:** Penelitian ini bertujuan mengetahui pengaruh ekstrak daun sukun terhadap kadar DPP4 pada tikus model diet tinggi lemak. **Metode:** Penelitian menggunakan desain kuantitatif observasional analitik dengan pendekatan ex post facto berdasarkan data sekunder lima kelompok, yaitu kontrol negatif, kontrol positif dengan metformin, dan tiga kelompok perlakuan ekstrak daun sukun dosis 200, 300, dan 400 mg/KgBB. Pengukuran kadar DPP4 dilakukan menggunakan metode ELISA, kemudian dianalisis dengan uji *One Way ANOVA* dan uji lanjutan *Post Hoc Tukey*. **Hasil:** Terdapat perbedaan bermakna kadar DPP4 antar kelompok. Rerata kadar DPP4 pada kelompok kontrol negatif, kontrol positif, dan perlakuan secara berurutan adalah 130,09 ng/mL; 127,94 ng/mL; 103,18 ng/mL; 66,74 ng/mL; dan 37,73 ng/mL. Ekstrak daun sukun menunjukkan pola dosis-respon, di mana peningkatan dosis menghasilkan penurunan kadar DPP4 yang lebih besar. Dosis 400 mg/KgBB memberikan efek paling optimal. **Kesimpulan:** Ekstrak daun sukun efektif menurunkan kadar DPP4 pada tikus yang diberi diet tinggi lemak.

Kata kunci: *Artocarpus altilis*, DPP4, diet tinggi lemak, inflamasi, tikus

THE EFFECT OF BREADFRUIT (*Artocarpus altilis*) LEAF EXTRACT ON *DIPEPTIDYL PEPTIDASE* 4 (DPP4) LEVELS IN HIGH-FAT-DIET MODEL RATS (*Rattus norvegicus*)

ABSTRACT

Background: *A high-fat diet can increase the level of dipeptidyl peptidase 4 (DPP4), an enzyme involved in inflammation and glucose metabolism. Breadfruit (Artocarpus altilis) leaf extract contains bioactive compounds with antioxidant and anti-inflammatory properties that may reduce DPP4 levels.* ***Objective:*** *This study aimed to determine the effect of breadfruit leaf extract on DPP4 levels in rats fed a high-fat diet.* ***Methods:*** *This research used a quantitative analytic observational design with an ex post facto approach based on secondary data from five groups, namely a negative control group, a positive control group receiving metformin, and three treatment groups given breadfruit leaf extract at doses of 200, 300, and 400 mg/KgBW. DPP4 levels were measured using the ELISA method and analyzed using One Way ANOVA followed by a Post Hoc Tukey test.* ***Results:*** *There are significant differences in DPP4 levels among groups. The mean DPP4 levels in the negative control, positive control, and treatment groups are 130.09 ng/mL, 127.94 ng/mL, 103.18 ng/mL, 66.74 ng/mL, and 37.73 ng/mL, respectively. The extract shows a dose-response pattern, in which increasing doses result in greater reductions in DPP4 levels. The 400 mg/KgBB dose shows the most optimal effect.* ***Conclusion:*** *Breadfruit leaf extract effectively reduces DPP4 levels in rats fed a high-fat diet.*

Keywords: *Artocarpus altilis, DPP4, high-fat diet, inflammation, rats.*