ABSTRAK

Hikmah Suryani Purba, NIM 4183220039 (2023). Evaluasi Ativitas ANtioksidan Ekstrak Etanol Daun Bosibosi (*Timonius flavescens*) Pada Tikus Diabetes Yang Diinduksi Dengan Aloksan.

Penelitian ini bertujuan untuk mengetahui aktivitas antioksidan in vivo dan in vitro ekstrak etanol daun bosibosi (*Timonius flavescens*) dengan metode DPPH (1.1-*Diphenyl-2-Picrylhydrazyl*) dan pengaruh ekstrak etanol daun bosibosi (*Timonius flavescens*) terhadap diameter tubulus seminiferus pada tikus putih (*Rattus norvegicus*) jantan diabetes yang diinduksi aloksan. Penelitian ini termasuk kedalam jenis penelitian eksperimental dengan rancangan acak lengkap (RAL), dibagi dalam 5 kelompok (n=5), kelompok kontrol negatif (K-) hanya diberi air minum, (K1+) kelompok diabetes diberi NaCl, (K2+) kelompok diabetes diberi metformin, (P1) kelompok perlakuan EBB dosis 400mg/kg, (P2) kelompok perlakuan EBB dosis 600mg/kg. penelitian ini dilakukan selama 16 hari, pada hari ke-16 seluruh tikus dibedah sehingga diperoleh darah dan testis tikus. Darah tikus yang diperoleh diuji kadar MDA nya sehingga diperoleh (K-) 0,39±0,17, (K1+) 3,79±0,30, (K2+) 0,56±0,10, (P1) 0,80±0,41, (P2) 0,61±0,96. Diameter tubulus seminiferus pada testis tikus diperoleh (K-) 120,88±5,21, (K1+) 153,95±34,54, (K2+) 149,36±11,47, (P1) 130,64±6,43, (P2) 125,98±1,31. Dalam metode DPPH dimulai dari pembuatan larutan DPPH, larutan induk EBB dan larutan standar Vitamin C. Hasil oengamatan menunjukan bahwa EBB memiliki nilai lC_{50} sebesar 58,81 ppm dan standar Vitamin C memiliki nilai lC_{50} sebesar 4,42, Aktivitas antioksidan ekstrak etanol daun bosibosi (*Timonius flavescens*) memiliki aktivitas antioksidan yang kuat, karena berada diantara nilai lC_{50} 50-100 ppm

Kata Kunci : Bosibosi (*Timonius flavescens*), Kadar MDA, Antioksidan, Metode DPPH, Diameter Tubulus Seminiferus

ABSTRACT

Hikmah Suryani Purba, NIM 4183220039 (2023). Evaluation of Antioxidant Activity of Ethanol Extract of Bosibosi (Timonius flavescens) Leaves in Alloxan-Induced Diabetic Rats.

This study aims to determine the in vivo and in vitro antioxidant activity of the ethanol extract of bosibosi leaves (Timonius flavescens) using the DPPH method (1.1-Diphenyl-2-Picrylhydrazyl) and the effect of the ethanol extract of bosibosi leaves (Timonius flavescens) on the diameter of the seminiferous tubules in white rats (Rattus norvegicus) alloxan-induced diabetic male. This study was included in the type of experimental study with a completely randomized design (CRD), divided into 5 groups (n = 5), the negative control group (K-) was only given drink, (K1+) the diabetes group was given NaCl, (K2+) the diabetes group was given metformin, (P1) the EBB treatment group at a dose of 400mg/kg, (P2) the EBB treatment group at a dose of 600mg.kg. This research was conducted for 16 days, on the 16th day all rats were dissected to obtain rat blood and testicles. The rat blood obtained was tested for MDA levels to obtain (K-) 0.39 ± 0.17, (K1+) 3.79 ± 0.30, (K2+) 0.56 ± 0.10, (P1) 0.80 ±0.41, (P2) 0.61±0.96. The diameter of the seminiferous tubules in the rat testes was obtained (K-) 120.88 ± 5.21, (K1+) 153.95 ± 34.54, (K2+) 149.36 ± 11.47, (P1) 130.64 ± 6, 43, (P2) 125.98 ± 1.31. In the DPPH method, it starts from preparing the DPPH solution, EBB mother liquor and Vitamin C standard solution. The results showed that EBB had an lC50 value of 58.81 ppm and Vitamin C standard had an lC50 value of 4.42. The antioxidant activity of the ethanol extract of bosibosi leaves (Timonius flavescens) has strong antioxidant activity, because it is between the lC50 value of 50-100 ppm

Keywords: Bosibosi (Timonius flavescens), MDA levels, antioxidants, DPPH method, diameter of seminiferous tubules