

EVALUASI NANOEMULSI DAN UJI EFEKTIVITAS ANTIPIRETIK SEDIAAN EMULSI EKSTRAK DAUN BIDARA (*Ziziphus mauritiana*) PADA TIKUS WISTAR

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ABSTRAK

Demam adalah suatu reaksi yang menggambarkan adanya suatu proses dalam tubuh yang ditandai dengan peningkatan suhu tubuh, sedangkan daun bidara digunakan sebagai penurun panas atau antipiretik. Bidara mengandung senyawa berupa flavonoid, saponin, alkaloid, tanin. Flavonoid sebagai senyawa bahan alam yang dihasilkan tanaman memiliki berbagai macam bioaktivitas, diantaranya adalah efek antipiretik, analgetik dan antiinflamasi. Tujuan pada penelitian ini yaitu untuk mengetahui hasil evaluasi stabilitas dan mengetahui aktivitas antipiretik sediaan nanoemulsi dari ekstrak daun bidara (*Ziziphus mauritiana*). Penelitian dilakukan melalui pengujian eksperimental yang diawali pembuatan ekstrak dengan metode maserasi menggunakan pelarut etanol, dilanjutkan dengan pembuatan nanoemulsi dengan metode homogenisasi. Pengujian sediaan meliputi uji organoleptis, uji pH F1, F2, F3 yaitu 6, uji tipe nanoemulsi didapatkan hasil tipe minyak dalam air, uji persen transmittan F1 94,081% F2 97,917% F3 92,885%, uji *potensial zeta* yaitu -28,0 mV dan uji *droplet size* yaitu 18,3 nm. Hasil pengujian efektifitas antipiretik sediaan emulsi ekstrak daun bidara terhadap tikus wistar di analisis menggunakan *Least Significant Different* (LSD) memiliki perbedaan yang signifikan pada dosis 3 yaitu dosis 300mg/ 200gBB. Sediaan emulsi ekstrak daun bidara memiliki efektifitas antipiretik yang di tunjukan adanya penurunan suhu pada tikus wistar.

Kata Kunci : Daun bidara, antipiretik, nanoemulsi

EVALUATION OF NANOEMULSION AND TESTING OF ANTIPYRETIC EFFECTIVENESS OF BIDARA (*Ziziphus mauritiana*) LEAF EXTRACT EMULSION PREPARATION IN WISTAR RATS

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ABSTRACT

*Fever is a reaction that describes a process in the body characterized by an increase in body temperature, while the bidara leaf is used as a fever reducer or antipyretic. Bidara contains compounds in the form of flavonoids, saponins, alkaloids, tannins. Flavonoids as natural compounds produced by plants have various kinds of bioactivity, including antipyretic, analgesic and anti-inflammatory effects. The purpose of this study was to determine the results of stability evaluation and to determine the antipyretic activity of nanoemulsion preparations from bidara leaf extract (*Ziziphus mauritiana*). The research was conducted through experimental testing, which began with the manufacture of extracts using the maceration method using ethanol as a solvent, followed by the manufacture of nanoemulsions using the homogenization method. The test of the preparation includes organoleptic test, pH test F1, F2, F3 which is 6, the nanoemulsion type test results in the type of oil in water, the percent transmittance test F1 94.081% F2 97.917% F3 92.885%, the zeta potential test is -28.0 mV and the test The droplet size is 18.3 nm. The results of testing the antipyretic effectiveness of emulsion preparations of bidara leaf extract against wistar rats were analyzed using Least Significant Different (LSD) which had a significant difference at dose 3, namely a dose of 300mg/200gBW. The emulsion preparation of bidara leaf extract has antipyretic effectiveness which is indicated by a decrease in temperature in wistar rats.*

Keywords: Bidara leaves, antipyretics, nanoemulsion