

INTISARI

Infeksi bakteri patogen seperti *Escherichia coli* dan *Staphylococcus aureus* merupakan penyumbang angka morbiditas dan mortalitas di negara tropis seperti Indonesia. *Heliotropium indicum* L. (Boraginaceae) atau sangketan merupakan gulma yang dapat dimanfaatkan sebagai obat dari bahan alam. Sangketan diketahui mengandung alkaloid, tannin, fenol, flavonoid dan terpenoid yang mampu menghambat aktivitas bakteri dari berbagai bakteri patogen.

Penelitian ini bertujuan untuk mengetahui aktivitas antibakteri dari ekstrak diklorometan *Heliotropium indicum* L. terhadap bakteri *Escherichia coli* dan *Staphylococcus aureus*. Herba simplisia sangketan diekstraksi dengan pelarut diklorometan menggunakan metode maserasi kemudian difraksinasi dengan metode Kromatografi Cair Vakum menggunakan pelarut n-heksan, etil asetat, dan metanol. Hasil fraksinasi dianalisis dengan metode Kromatografi Lapis Tipis menggunakan fase gerak kloroform:metanol:air (64:50:10) dan n-heksan:etil asetat (5:1). Data aktivitas antibakteri dari sangketan didapatkan melalui metode *narrative literature review*. Artikel didapatkan dari berbagai *database* seperti *PubMed*, *ScienceDirect*, *ResearchGate*, dan *Google Scholar* dengan penambahan kata kunci berupa: (*antibacterial* + *Heliotropium*); (*disc diffusion* + *Heliotropium*), dan (*bioautography* + *Heliotropium*).

Penelusuran menghasilkan 34 artikel yang diidentifikasi dan memenuhi kriteria inklusi. Hasil penulisan *narrative review* adalah aktivitas antibakteri *Escherichia coli* dan *Staphylococcus aureus* dari sangketan dan golongan senyawa yang bertanggung-jawab yaitu senyawa alkaloid, triterpen, tannin, dan flavonoid.

Kata Kunci : *Escherichia coli*, *Staphylococcus aureus*, *Heliotropium indicum* L., Boraginaceae, *Narrative review*.

ABSTRACT

Pathogenic bacterial infections such as Escherichia coli and Staphylococcus aureus are one of contributor to morbidity and mortality in tropical countries such as Indonesia. Heliotropium indicum L. (Boraginaceae) or sangketan is a weed that can be used as a medicine based on natural ingredients. Sangketan is known contain chemical constituents such as tannins, alkaloids, phenols, flavonoids and saponins which can inhibit the bacterial activity of various pathogenic bacteria.

This study aims to determine the antibacterial activity of dichloromethane extract Heliotropium indicum L. against Escherichia coli and Staphylococcus aureus bacteria. The powdered sample from aerial parts of sangketan was extracted with dichloromethane solvent using the maceration method. Fractionation was carried out using the Liquid Vacum Chromatography method with n-hexane, ethyl acetate, and methanol as the solvents. The fractionation results were analyzed by Thin Layer Chromatography using solvents system chloroform: methanol: water (64:50:10) and n-hexane: ethyl acetate (5:1). Then the antibacterial activity of sangketan was obtained through the narrative literature review method. Articles are obtained from various databases such as PubMed, ScienceDirect, ResearchGate, and Google Scholar with the addition of keywords in the form of: (antibacterial + Heliotropium); (disc diffusion + Heliotropium), and (bioautography + Heliotropium).

Total 34 articles were identified and fulfilled the inclusion criteria. Result from the narrative review was the antibacterial activity of Escherichia coli and Staphylococcus aureus from sangketan and the compound groups that responsible for antibacterial are alkaloid, triterpene, tannin, and flavonoid.

Keywords : *Escherichia coli, Staphylococcus aureus, Heliotropium indicum L., Boraginaceae, Narrative review.*