ABSTRACT

THE ENDOSYMBIONTS FUNGI EXTRACT ISOLATED FROM LEAF MANGROVE OF *Avicennia* sp. AND THEIR POTENTIAL ACTIVITY AS AN ANTIBACTERIA AGAINST *Salmonella thypi* (Theobald Smith, 1885)

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Typhoid fever is infectious disease caused by *Salmonella typhi* bacteria dan still as health problem in developing countries. In previous research, it was stated that *Salmonella typhi* bacteria were resistant to several antibiotics. Various methods had been used to obtain new antimicrobial compounds, one of them utilize endosymbiont fungi that were symbiotic in leaf tissue mangrove *Avicennia* sp. This study aimed to obtain endosymbiont fungi isolated from *Avicennia* sp. dan get extracts of endosymbiont fungi which had inhibitory activity against *Salmonella typhi*. The samples of endosymbiont fungi used were from *Avicennia alba* leaf dan extracted using maceration method with ethyl acetate as solvent. Kirby Bauer disc paper method was used to test the inhibitory activity. The results of the study obtaned 12 isolated of endosymbiont fungi, dan five endosymbionts of them had the potential to inhibit *Salmonella thypi*, namely WB-D02M, WB-D05P, WB-D06P, PJ-D01L dan PJ-D02P isolated.

Keywords: *Avicennia* sp., endosymbion fungi, extract, *Salmonella thypi.*

ABSTRAK

POTENSI EKSTRAK ISOLAT JAMUR ENDOSIMBION DAUN *Avicennia* sp. DI PERAIRAN LAMPUNG SEBAGAI ANTIBAKTERI TERHADAP BAKTERI *Salmonella thypi* (Theobald Smith, 1885)

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Demam tifoid merupakan penyakit menular yang disebabkan oleh bakteri *Salmonella thypi* dan masih menjadi masalah kesehatan di negara berkembang. Pada penelitian sebelumnya menyebutkan bahwa bakteri *Salmonella typhi* resisten terhadap beberapa antibiotik. Bermacam cara telah dilakukan untuk mendapatkan senyawa antibitok baru, salah satunya dengan memanfaatkan jamur endosimbion yang bersimbiosis pada jaringan daun mangrove *Avicennia* sp. Penelitian ini bertujuan untuk mendapatkan isolat jamur endosimbion dari daun *Avicennia* sp. dan memperoleh ekstrak isolat jamur endosimbion daun mangrove *Avicennia* sp. yang memiliki aktivitas penghambat terhadap *Salmonella thypi*. Sampel jamur endosimbion yang digunakan berasal dari daun *Avicennia alba* dan diekstraksi menggunakan metode maserasi dengan pelarut etil asetat. Metode kertas cakram Kirby Bauer digunakan untuk uji aktivitas daya hambat. Hasil penelitian diperoleh 12 isolat jamur endosimbion, di antaranya terdapat lima jamur endosimbion potensial yang memiliki kemampuan daya hambat terhadap bakteri *Salmonella thypi,* yaitu isolat WB-D02M, WB-D05P, WB-D06P, PJ-D01L, dan PJ-D02P.

Kata kunci: *Avicennia* sp., ekstrak, jamur endosimbion, *Salmonella thypi*.