

POTENSI ISOLAT BAKTERI LAUT KAWASAN PARIAMAN SEBAGAI PENGHASIL ANTIBIOTIK

Abstrak

Potensi isolat bakteri laut kawasan pariaman sebagai penghasil antibiotik telah dilakukan pada bulan Agustus - November 2015. Tujuan penelitian ini adalah untuk mengetahui potensi isolat bakteri laut kawasan pariaman sebagai penghasil antibiotik. Untuk mengetahui aktivitas antibiotik masing-masing isolat bakteri berdasarkan terbentuknya zona hambat. Untuk mengetahui karakteristik masing-masing isolat bakteri laut penghasil antibiotik. Penelitian ini menggunakan metoda eksperimen dengan teknik difusi kertas cakram dan data dianalisa secara deskriptif. Dengan tahapan uji antagonis, uji aktivitas antibiotik dan karakterisasi isolat bakteri laut penghasil antibiotik. Hasil penelitian terhadap uji antagonis menunjukkan bahwa semua isolat dapat menghambat pertumbuhan bakteri uji dengan terbentuknya zona hambat dari daerah goresan dan hasil uji antibiotik didapatkan enam dari sembilan isolat bakteri mampu menghambat pertumbuhan *E. coli* dan *S. aureus* yaitu isolat I₂A₃, I₇A₃, I₉A₃, I₅K₃, I₇K₂, I₉T₂ diantara enam isolat tersebut yang memiliki zona hambat tertinggi terhadap kedua bakteri uji yaitu isolat I₅K₃ dengan diameter zona hambat 19 mm terhadap *E. coli* dan 18 mm terhadap *S. aureus*. Karakterisasi isolat bakteri laut didapatkan lima isolat kelompok gram positif, sel berbentuk batang, memiliki endospora, satu isolat gram positif, sel berbentuk bulat, positif katalase dan tiga isolat gram negative, sel berbentuk batang, motil, positif katalase dan oksidase.

Keywords : *antagonis, antibiotik, isolat, katalase, oksidase, zona hambat*



THE POTENCY OF ISOLATED MARINE BACTERIA IN PARIAMAN AS A PRODUCING REGION OF ANTIBIOTIC

Abstract

The potency of isolated marine bacteria in Pariaman as a producing region of antibiotic, has been conducted between August and November 2015. The aims of this study are to determine the potency of isolated marine bacteria in Pariaman, as a producing area of antibiotic, to determine antibiotic activity of each isolated bacteria by the formation of inhibition zone, and to know the characteristic of each marine bacteria producing antibiotic. This research uses experimental method with paper disk diffusion technique and the data were analyzed descriptively. With the test phase antagonist, antibiotic activity test and characterization of marine bacteria producing antibiotic. The research on antagonist test showed that all isolates can inhibit bacterial growth test with the formation of inhibition zone from the scratched areas, and the antibiotic test result obtained six of the nine bacterial isolates that were able to inhibit the growth of *E.coli* and *S.aureus* isolates isolates I₂A₃, I₇A₃, I₉A₃, I₅K₃, I₇K₂, I₉T₂ among six isolates that have the highest inhibitory zone against both bacteria test namely isolates I₅K₃ with a diameter of 19 mm zone of inhibition against *E. coli* and 18 mm against *S. aureus*. The Characterization of isolated marine bacteria obtained five groups of gram positive isolates, rod shaped cells with endospores, a gram positive isolates, the cell are round, catalase positive and three isolates of gram negative, rod shaped cells, motile, catalase positive and oxidase.

Keywords: *antagonists, antibiotic, isolate, catalase, oxidase, inhibition zone*

