CHAPTER V

CONCLUSION

Micromonospora sp. BTG10-2 was isolated from Narathiwat peat swamp soil, Narathiwat province. The antimicrobial activities screening of the EtOAc extracts of fermentation broth of this strain showed the activities against all tested bacteria, *Micrococcus luteus* ATCC 9341, *Bacillus subtilis* ATCC 6633, *Pseudomonas aeruginosa* ATCC 27853, *Eschericia coli* ATCC 25922 and *Salmonella* sp. with clear zones of 16, 9 and 8 mm at concentration 1 mg/disc, respectively, however it showed no activity against *C. albicans* ATCC 10231. The ethyl acetate extract was further separated by chromatographic method to give fraction M41332. Due to the limited amount and the decomposition of M41332, the fraction was partially characterized the constituents by analyses of its NMR spectral data and comparison with literature data of the known anthracycline derivatives.

The endophytic fungi, *Exserohilum rostratum*, RNAS5, isolated from surface-sterilized leaf of *Rhinacanthus nasutus*. Through repeated chromatography, three compounds; a highly symmetrically known compound, rostratin A, and two new compounds, exserohiline A (W3) and exserohiline B (R4/2-7), were obtained from the ethyl acetate extract. The structures of these compounds were elucidated by analyses of ^{1}H, ^{13}C, 2D-NMR and mass spectra, as well as comparison with the literature data. The ethyl acetate extract was shown synergistic activity with ketoconazole against *Candida albicans*. But it was found that rostratins A, exserohilines A and B had no activity against tested microorganisms.