

CHAPTER V

CONCLUSION

A marine bacterium *Alteromonas* sp. S9730 was isolated from an unidentified hydroid which was collected from Si-Chang Island, Chonburi Province. This marine bacterium was found to produce an antibacterial agent, identified as a known compound (K004) isatin (2,3-indolinedione). The isatin displayed minimum inhibition concentration (MIC) at 31.3 µg/ml against shrimp pathogenics, *Vibrio* spp. and against both *Escherichia coli* ATCC 25922 and *Staphylococcus aureus* ATCC 25923 bacteria at the MIC 62.5 µg/ml. The three-day old cultured broth of *Alteromonas* sp. S9730 in our laboratory could produce isatin up to 89% of the crude dichloromethane extract at third day or fourth day. In addition to isatin, two known compounds were also obtained and identified as diketopiperazines, *cyclo-(Pro-Leu)* (K002) and *cyclo-(Gly-Pro)* (K005), which were previously isolated from the marine sponge, *Tedania ignis* (Schmitz *et al.*, 1983) and the star fish, *Luidia clathrata* (Pettit *et al.*, 1973) respectively. Both of diketopiperazines did not exhibit antibacterial activity.

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