

CHAPTER V

CONCLUSION AND RECOMMENDATION

Two groups of compounds were isolated from a marine sponge, *Ircinia* sp., collected from Palau Island. The first group was elucidated and classified as linear furanoterpenes, consisting of 3 known compounds anhydrofurospingin-1 (P1), furodendin (P44), furospingolide (P45). Anhydrofurospingin -1, was previously isolated from a marine sponge, *Spongia officinalis* (Cimino *et al*, 1972), and the present work showed that this compound was toxic to brine shrimp (LD₅₀ at 2.38 µg/ml) and was moderately active to anti-HSV-1 at concentration 20 µg/ml. Furodendin was previously isolated from *Phyllospongia dendyi* (Kazlauskas *et al*, 1980), while furospingolide (P45) as first reported by Kashman and Zviely (1980) from *Dysidea herbacea*. Furospingolide also showed moderate activity to anti HSV-1 at concentration 20µg/ml. The second group was classified as a methyl scalarane sesterterpene named "22-acetoxy-16β-hydroxy-24-methyl-24-oxoscalaran-25,12β-olactone, isolated previously from *Lendenfeldia* sp. (Kazlauskas *et al*, 1982).

The presence of these compounds, particularly, the linear furanoterpenes in the genus *Ircinia* are available information for further studies of chemical constituent from this genus, because there are rich sources of these groups of compounds.

From this report, *Ircinia* sp. from Palau Island produced linearfuranoterpenes which showed interesting bioactivity. Study of chemical constituents from the Thai *Ircinia* should be recommended. The *Ircinia* may produce other interesting linearfuranoterpenes in different locations.



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