

Additional halogenated secondary metabolites from the sea hare *Aplysia dactylomela*

Abstract

As part of our continuous interest in the presence of secondary metabolites in marine flora and fauna of Borneo, we investigated the chemical composition of sea hare (*Aplysia dactylomela*) collected from Sepanggar Island, Kota Kinabalu. Five halogenated secondary metabolites were isolated and identified as; Palisadin A (1, 2%), Aplysistatin (2, 16%), 5-acetoxypalisadin B (3, 2%), Palisadin B (4, 4%) and 12-hydroxypalisadin B (5, 2%). Similar analysis of its diet, *Laurencia snackeyi*, indicated the presence of compounds 1, 2, 3 and 4 only. The presence of the additional compound, 12-hydroxypalisadin B (2) is suggested to be a derivative compound due to chemical modification of Palisadin B (4) in the gut of the sea hare and can be explained through biogenesis. Isolated compounds also showed various levels of antimicrobial activities against environmental and clinical microbes.