

**Cytotoxicity and Antibacterial Potential of Halogenated  
Chamigrenes from Malaysian Red Alga,  
*Laurencia majuscula***

**ABSTRACT**

Red algae of the genus *Laurencia* have been known to produce a wide array of bioactive secondary metabolites. Here, we report the isolation of two new halogenated chamigrenes, lauremantanones A (1) and B (2), along with seven known compounds, dendroidiol (3), (+)-elatol (4), cartilagineol (5), obtusol (6), (+)-laurencenone B (7), 2-chloro-3-hydroxy- $\alpha$ -chamigren-9-one (8), and puertitol A (9), from a population of *Laurencia majuscula* (Harvey) Lucas from Mantanani Island (North Borneo). The structures of the two new metabolites were determined based on spectroscopic data (IR, 1D and 2D NMR, and MS). Compounds isolated from this alga exhibited potent cytotoxic (HeLa, MCF-7, P-388) and antibacterial (against antibiotic-resistant clinical bacteria) activities. The major metabolite of this population has significant importance in the geographical distribution of this species globally.