Kasmiati et al., Chem Sci J 2016, 7:3(Suppl)
http://dx.doi.org/10.4172/2150-3494.C1.006



# Anti-phytopathogenic and anti-cytotoxic brominated sesquiterpenes from the Indonesian red seaweed *Laurencia intricata*

**Kasmiati**[1], **Yukio Yoshioka**[2], **Tetsuji Okamoto**[2] and **Makoto Ojika**[1]
[1]Nagoya University, Japan
[2]Hiroshima University, Japan

Marine natural products have been providing structurally novel bioactive substances, some of which were developed as medicines or were promising leads for new drugs. During the search for bioactive substances from marine organisms, we detected anti-phytophatogenic (an oomycete of *Phytophthora*) activity for extracts of the Indonesian red seaweed *Laurencia intricata*. The active hexane and 90% methanol extracts were combined and separated on silica gel and then purified by reversed-phase HPLC to obtain four related compounds. Based on 2D NMR and MS analysis, they were identified as aplysistatin, palisadin A, palisol, and 5β-hydroxypalisadin B, which are all known brominated sesquiterpenes. The minimum doses to inhibit *Phytophthora capsici* are 100, 300, 300, and 300μg/disk respectively. Cytotoxic activity of these compounds was also evaluated against human epidermoid carcinoma A431 cells, showing the IC50 values of 0.15, 1.42, 0.59, and 0.45μg/ml respectively.

## Biography

Kasmiati is a PhD candidate at Nagoya University Graduate School of Bioagricultural Sciences, field of Bioactive Natural Products Chemistry. She is a young Lecturer at Hasanuddin University Indonesia, Faculty of Marine Sciences and Fishery. She has presented related papers both poster and oral in some international conferences.

kasmiati74@yahoo.com

**Notes:**