

Review

Synthetic Efforts for Stereo Structure Determination of Cytotoxic Marine Natural Product Pericosines as Metabolites of *Periconia sp.* from Sea Hare

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Abstract: Pericosines are unique C-7 cyclohexenoid metabolites of fungus *Periconia byssoides* OUPS-N133 originally isolated from sea hare *Aplysia kurodai*, and showed significant in vitro cytotoxic activity against P388 lymphocytic leukemia cells. Particularly, pericosine A showed the most potent activity and significant in vivo antitumor activity against murine P388 cells. Thus, pericosines are thought to be promising seed compounds as anticancer drug candidates. However, most of pericosines certain stereo structure had not been determined by spectral analyses because of multi-functionalized cyclohexenoid structure with torsional strains before total syntheses of pericosines. In this review the synthetic efforts for pericosines in this decade from discovery of these marine natural products are surveyed.
