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Dracorhodin Content and Selected Bioactivities of *Calamus ruber*' Dragon Blood Resin from Different Drying Conditions

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ABSTRACT Dragon blood resin from the fruit barks of *Calamus ruber* contains a bioactive compound, dracorhodin, that has many medicinal benefits. The study aimed to investigate the effects of different drying methods on dracorhodin content, cytotoxicity and antioxidant activities of the resin. Hot-air and hot-steam-air drying at 55°C and 60°C were employed in this study. Resin dried with the hot-steam-air drying at 55° was most toxic to *Artemia salina* (LC $_{50}$ of 430.61 ppm). Resin dried with hot-steam-air drying at 60°C contained the highest dracorhodin content (4.34%) and was the best at scavenging DPPH (1,1-diphenyl-2-picrylhydrazyl) (IC $_{50}$ of 32.73 ppm), cupric ion (TEAC of 63.15 ppm) and ferric ion (TEAC of 8.73 ppm). Resin from the hot-air-drying at 55°C was the best at scavenging ABTS+ (2,2'-azino-bis (3-ethylbenzothiazoline-6-sulfonic acid)) (TEAC of 469.72 ppm). Drying method and temperature affected the dracorhodin content and IC $_{50}$ of the resin, respectively.