

Komunikasi Ringkas

BRINE SHRIMP TEST TRITERPENES FROM ROOT BARK OF
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ABSTRACT

The root bark of *Sandoricum emarginatum*, Meliaceae was collected in North Tapanuli, North Sumatera. Local people use this timber plant for construction and the fruit bark for cooking (Naito, 1986). In the previous investigation, 1,3,5-cuparatrien-15-ol, 4,15-cubebene and secobryononic acid were isolated from the stem bark of *Sandoricum emarginatum* (Pratiwi). Further fractionation of n-hexane extract of root bark of *Sandoricum emarginatum* in the isolation of two triterpenes resulted bryononic (1) and 3,4-seco-olean-4(23),12-dien-3,29-dioic acids (3) and their structures were elucidated by IR, MS and NMR-spectroscopy. Compounds (1) and (3) were found more active than methyl bryononic derivate (2) with Brine Shrimp as bioindicator.

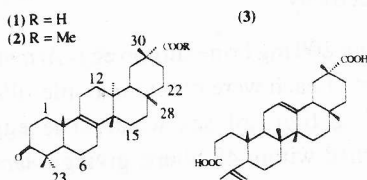
INTRODUCTION

There are a huge number of plants in Indonesia which have been traditionally used as herbal medicine. The government's policy of increasing national health care and development in utilization of natural resources, support the need to investigate the biological activity of compounds which are considered to be active, such

as baboon's *Sandoricum* or *Sandoricum emarginatum*.

Meyer and Co-workers have reported a rapid, inexpensive and in-house bioassay for screening physiologically active compounds using a simple zoological organism, a tiny crustacean brine shrimp (*Artemia salina* Leach). Thus, the brine shrimp bioassay is considered to be convenient and general technique to screen for biologically active compounds (Leswara, 1986).

In this paper, we report isolation, structure elucidation and brine shrimp lethality test of bryononic, 3,4-seco-olean-4(23),12-dien-3,29-dioic acids and methyl bryononic derivate.



EXPERIMENTAL

Plant material: The root bark of *Sandoricum emarginatum* Hien was collected in North Tapanuli, North Sumatera, Indonesia in 1996.