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# DE LA SALLE UNIVERSITY

## BIOASSAY-GUIDED ISOLATION AND STRUCTURE ELUCIDATION OF SOME METABOLITES FROM *PIPTURUS ARBORESCENS*

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804000

A Thesis

Presented to

The Faculty of the Department of Chemistry  
College of Science  
De La Salle University

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In Partial Fulfillment of the Requirement  
for the Degree Master of Science in Chemistry

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April 1995



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## ABSTRACT

Chloroform (93PA1C) and ethyl acetate (93PA1E) extracts were obtained from the graded extraction of the crude ethanolic extract of *P. arborescens* (93PA1). Exhaustive cold percolation of the second batch of *P. arborescens* sample afforded a second ethanolic extract (RPA). The three extracts showed low to moderate cytotoxic activity in Erine Shrimp Assay (BSA). Both the chloroform and the ethanolic extracts were active against *B. subtilis* and *S. aureus*. The ethyl acetate extract was active against *B. subtilis* only.

Separation of the crude ethanol extract by gravity column chromatography afforded five (5) pure fractions out of eleven (11). These fractions showed activity against *E. coli*, *S. aureus*, *B. subtilis*, *K. pneumoniae*, *A. niger* and *C. albicans*.

Fractionation of the chloroform crude extract (93PA1C) gave pure isolates : RPACCEt1A, RPACCEt4B, RPACCEt4E and RPACCEt2. Most fractions of the chloroform extract and the ethanolic extract showed weak to moderate toxicity in the brine shrimp bioassay. Recrystallization of some active fractions of crude ethanolic extract gave pure isolates: RPA11D, RPA11MP,



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RPA11MS, RPA10M1, PA10M2 and RPA10MS.

Rechromatography of fraction 93PA1E6 obtained from the crude EtOAc extract (93PA1E) afforded a pure isolate (93PA1E6/6). The pure isolate 93PA1E6/6 was found active against *B. subtilis* (ZI=8.0 mm). Structure (1) is proposed for isolate 93PA1E6/6 from the analysis of its nmr, IR, MS and UV data. No compound with this structure has been reported.

