

Alkaloids of *Crinum x powellii* “Album” (Amaryllidaceae) and their Topoisomerase Inhibitory Activity

Jaime Niño*, Gina M. Hincapié, Yaned M. Correa, and Oscar M. Mosquera

Grupo de Biotecnología – Productos Naturales, Escuela de Tecnología Química, Universidad Tecnológica de Pereira, Pereira, Colombia. Fax: 57-6-321 3206. E-mail: janino@utp.edu.co

* Author for correspondence and reprint requests

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The alkaloids lycorine, 1-*O*-acetyllycorine and ismine were isolated from the basic dichloromethane-soluble fraction of *Crinum x powellii* “Album” bulbs. The alkaloid structures were established by physical and spectroscopic analyses, including 1D NMR techniques and GC-MS analysis. The three alkaloids are reported for the first time for this hybrid.

Additionally, the three alkaloids isolated were tested against a mechanism-based bioassay utilizing genetically engineered mutants of the yeast *Saccharomyces cerevisiae* strains RAD+, RAD52Y and RS321 where lycorine was the only alkaloid that displayed moderate topoisomerase I inhibitory activity.

Key words: Amaryllidaceae-Type Alkaloids, Mutant Yeast Assay, *Saccharomyces cerevisiae*