

## SUPPLEMENTARY FIGURES

### Isolation of three Lycorine type Alkaloids from *Rhodolirium speciosum* using pH-zone-refining Centrifugal Partition Chromatography and their Acetylcholinesterase inhibitory activity

Diana Correa<sup>1</sup>, Edgar R. Pastene-Navarrete<sup>1,2,5\*</sup>, Luis Bustamante<sup>3</sup>, Marcelo Baeza<sup>4</sup>, Julio E. Alarcón-Enos<sup>2\*</sup>.

<sup>1</sup>Laboratorio de Farmacognosia, Dpto. de Farmacia, Facultad de Farmacia, P.O. Box 237, Universidad de Concepción, Concepción, Chile.

<sup>2</sup>Laboratorio de Síntesis y Biotransformación de Productos Naturales, Dpto. Ciencias Básicas, Universidad del Bío-Bío, Chillan, Chile.

<sup>3</sup>Dpto. de análisis instrumental, Facultad de Farmacia, Universidad de Concepción, Concepción, Chile.

<sup>4</sup>Dpto. Botánica, Facultad de Ciencias Naturales y Oceanográficas, Universidad de Concepción. Concepción, Chile.

<sup>5</sup>Universidad de Concepción, Unidad de Desarrollo Tecnológico, UDT.

Table 1S. Different solvent systems used for purification of *R. speciosum* alkaloids by pH zone refinement CPC.

#	Solvent Systemns	Retentor (TEA)	Displacer (acid)
1	<i>n</i> -Hept/EtOAc/ <i>n</i> -PrOH/W	15 mM	HCl 6 mM
2	<i>n</i> -Hept/EtOAc/ <i>n</i> -PrOH/W	15 mM	Acetic acid 6 mM
3	<i>n</i> -Hept/EtOAc/ <i>n</i> -PrOH/W	15 mM	Formic acid 3 mM
4	MtBE/ACN/W	15 mM	Formic acid 6 mM
5	MtBE/ACN/W	12 mM	Formic acid 6 mM

*n*-Hept: n-heptane; EtOAc: ethyl acetate; *n*-PrOH: n-propanol; W: water; MtBE: Methyl terbutyl ether; ACN: acetonitrile.

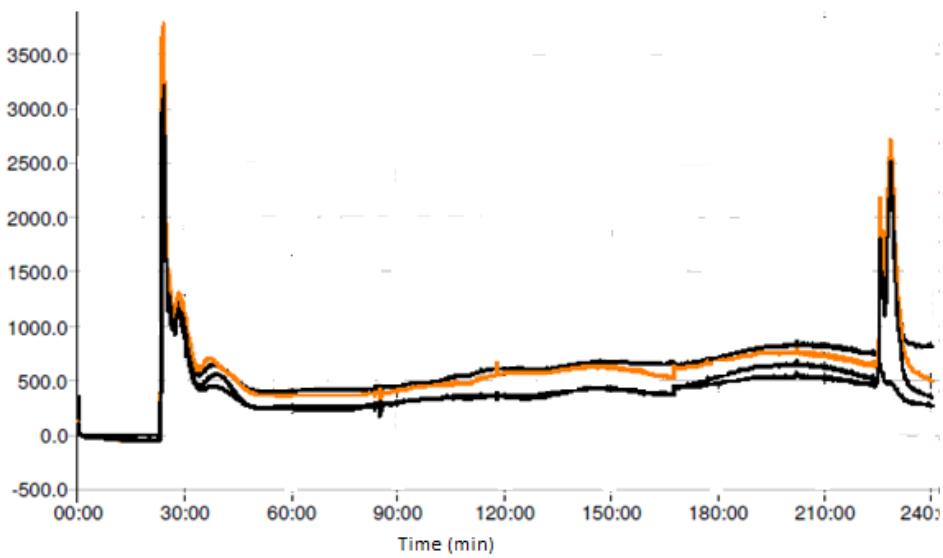


Figure S1: pH zone refinement CPC of *R. speciosum* using solvent system: n-Hept/EtOAc/n-PrOH/H<sub>2</sub>O (15 mM TEA and 6 mM HCl).

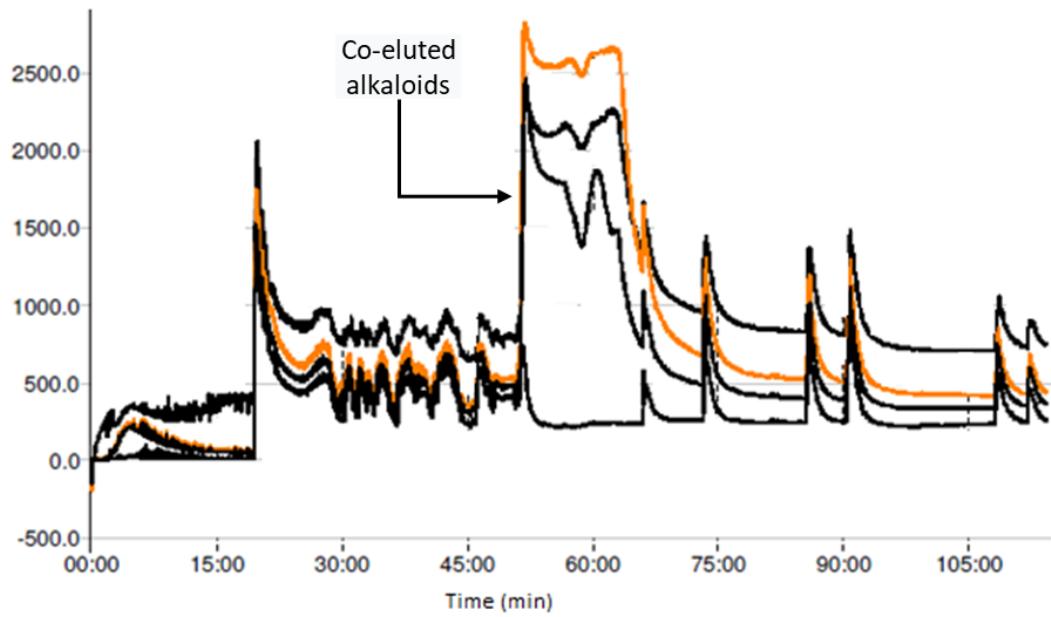


Figure S2: pH zone refinement CPC of *R. speciosum* using solvent system: n-Hept/EtOAc/n-PrOH/H<sub>2</sub>O (15 mM TEA and 6 mM acetic acid).

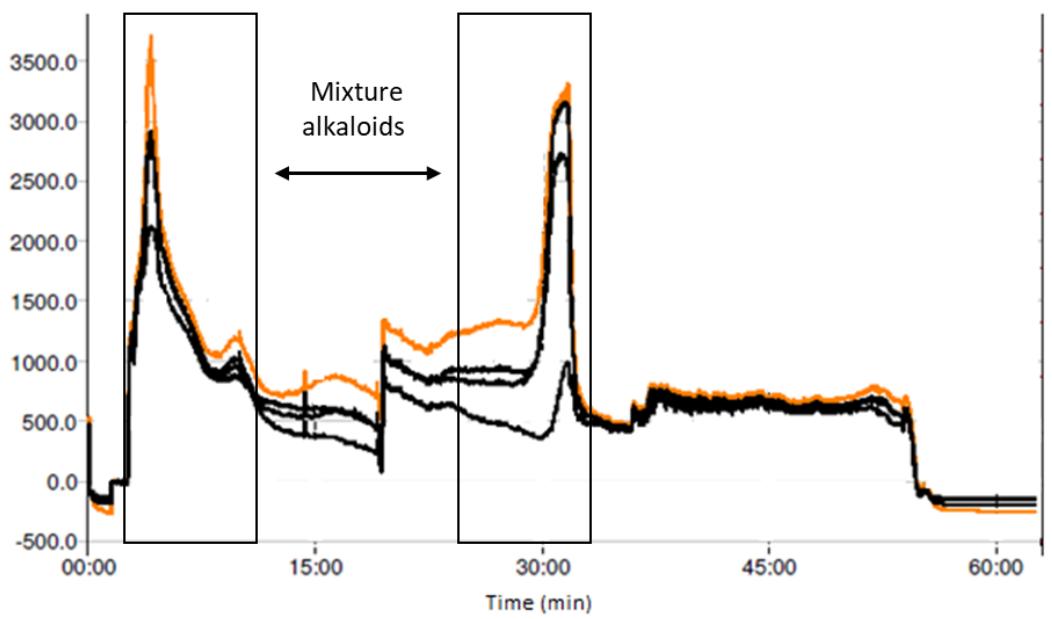


Figure S3: pH zone refinement CPC of *R. speciosum* using solvent system: n-Hept/EtOAc/n-PrOH/H<sub>2</sub>O (15 mM TEA and 3 mM formic acid).

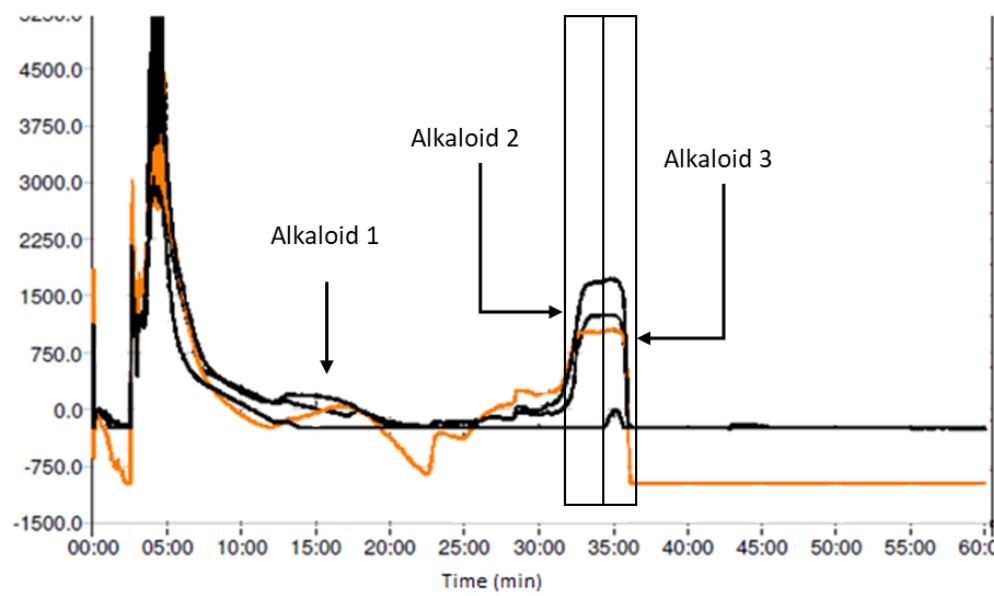


Figure S4: pH zone refinement CPC of *R. speciosum* using solvent system: n- MtBE/ACN/W (12 mM TEA and 6 mM formic acid)