SUPPLEMENTARY MATERIAL

A novel pyrrole alkaloid from the fruit peels of *Strychnos nux-blanda*

Jirapast Sichaem^a, Kornkanok Ingkaninanand^b and Santi Tip-pyang^{a,*}

^a*Natural Products Research Unit, Department of Chemistry, Faculty of Science, Chulalongkorn University, Bangkok 10330, Thailand*

^b*Department of Pharmaceutical Chemistry and Pharmacognosy, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok 65000, Thailand*

Corresponding author

Assoc. Prof. Dr. Santi Tip-pyang, Natural Products Research Unit, Department of Chemistry, Faculty of Science, Chulalongkorn University, Bangkok 10330, Thailand, Tel.: +662 218 7625; fax +662 218 7598; E-mail address: Santi.Ti@chula.ac.th

Abstract

A novel pyrrole alkaloid, strychnuxin (**1**), along with five known compounds (**2-6**) were isolated from the fruit peels of *Strychnos nux-blanda*. The structures of all the isolated compounds (**1-6**) were fully characterized using spectroscopic data, as well as comparisons with the previous literature data. Moreover, all isolated compounds were assessed for their α -glucosidase and acetylcholinesterase inhibitory activities.

Keywords: *Strychnos nux-blanda*, Loganiaceae, Pyrrole alkaloid, Anti- α -Glucosidase activity, Antiacetylcholinesterase activity.

Figure S1. ^1H NMR spectrum of **1** in CDCl_3 .

Figure S2. ^{13}C NMR spectrum of **1** in CDCl_3 .

Figure S3. COSY NMR spectrum of **1** in CDCl₃.

Figure S4. HSQC NMR spectrum of **1** in CDCl₃.

Figure S5. HMBC NMR spectrum of **2** in CDCl_3 .

Figure S6. NOESY NMR spectrum of **1** in CDCl_3

Figure S7. Selected HMBC (arrows), COSY (bold lines) and NOESY correlations of **1**.

Table S1. ^1H and ^{13}C NMR data of **1** in CDCl_3 (400 MHz for ^1H , 100 MHz for ^{13}C).

Position	1	
	δ_{H} (ppm), J (Hz)	δ_{C} (ppm)
2	-	131.0
3	6.14, d (3.4)	108.7
4	5.84, d (3.4)	101.3
5	-	131.4
6a	5.06, d (14.4)	65.0
6b	4.94, d (14.4)	
8	4.78, dd (11.0, 3.4)	75.9
9a	4.21, dd (12.2, 3.4)	48.3
9b	3.91, dd (12.2, 11.0)	
1'	-	129.9
2',6'	7.31, d (8.4)	127.8
3',5'	6.86, d (8.4)	115.5
4'	-	155.7
2-CH ₂ OH	4.57 d (4.0)	56.3