## **ELECTRONIC SUPPORTING INFORMATION**

## Nano-Liposome Encapsulation of Adenosine and Cordycepin from Cordyceps

## militaris: Preparation, Characterization, Stability, and In Vitro Digestion

## Evaluation

Nguyen Quynh Dao<sup>1,2</sup>, Nguyen Thanh Tan<sup>1</sup>, Nguyen Ba Thanh<sup>1</sup>, Le Minh Hung<sup>3</sup>, Nguyen Van

My<sup>4</sup>, Nguyen Minh Hai<sup>5</sup>, Nguyen Phuong Tuyen<sup>2</sup>, Nguyen Quoc Thang<sup>6</sup>, Tran Chi Dung<sup>6</sup>, Tran

Quang Hieu<sup>2\*</sup>

<sup>1</sup>Institute of Biotechnology and Food Technology, Industrial University of Ho Chi Minh City, 12

Nguyen Van Bao Street, Ward 1, Go Vap District, Ho Chi Minh City 700000, Viet Nam

<sup>2</sup>Faculty of Food Technology -Saigon Technology University, Ho Chi Minh City, Vietnam, 180

Cao Lo Street, Ward 4, District 8, Ho Chi Minh City 700000, Vietnam

<sup>3</sup>Sub-Institute of Agricultural Engineering and Post-Harvest Technology, 54 Tran Khanh Du, Ho

Chi Minh City 700000, Vietnam

<sup>4</sup>Chemistry Faculty, Ho Chi Minh University of Education, Vietnam, 280 An Duong Vuong,

District 5, Ho Chi Minh City, 700000 Viet Nam

<sup>5</sup>Faculty of Chemical and Food Technology HCMC University of Technology and Education, Vo

Van Ngan Street, Thu Duc City, Ho Chi Minh City 700000, Vietnam

<sup>6</sup>Faculty of Chemical Engineering, Industrial University of Ho Chi Minh City, 12 Nguyen Van Bao, Go Vap, Ho Chi Minh City 700000 Viet Nam \*Corresponding author, email address: <u>hieu.tranquang@stu.edu.vn</u>

Table S1. Effect of injection rate on LCMs parameters
Table S2. Effect of ultrasonication amplitute capacity on LCMs parameters
Table S3. Effect of ultrasonication time on LCMs parameters
Figure S1. Representative chromatogram UHPLC-MS/MS of standard COR at 100 ppb.
Figure S2. Representative chromatogram UHPLC-MS/MS of COR in real sample

Figure S3. Representative chromatogram UHPLC-MS/MS of standard ADE at 100 ppb

Figure S4. Representative chromatogram UHPLC-MS/MS of ADE in real sample

Injection rate _(ml/min)	EE_ADE, %	SD	EE_COR, %	SD	Z-average (nm)	SD
0.4	65.7	2.1	66.7	4.0	124.3	4.0
0.6	75.3	3.5	70.7	0.6	122.3	4.2
0.8	71.0	2.6	71.0	1.0	146.0	5.3
1.0	69.0	9.5	66.3	5.5	180.7	10.1

Table S1. Effect of injection rate on LCMs parameters

Table S2. Effect of ultrasonication amplitute capacity on LCMs parameters

Ultrasonication					Z-average	
amplitute (%)	EE_ADE, %	SD	EE_COR, %	SD	(nm)	SD
30	63.7	3.5	62.7	3.5	173.3	15.3
40	69.7	2.5	67.0	6.2	145.3	5.5
50	75.0	2.6	71.7	2.1	132.0	2.6
60	75.7	3.8	73.7	3.2	108.3	7.6
70	77.7	1.5	69.3	8.1	98.3	7.6
80	65.7	5.1	57.3	4.0	88.3	2.1

 Table S3. Effect of ultrasonication time on LCMs parameters

Ultrasonication time (second)	EE%_ADE	SD	EE%_COR	SD	Z-average (nm)	SD
30	69.0	3.6	69.7	2.5	165.7	5.1
45	69.7	2.5	75.0	2.6	147.0	4.5
60	72.7	3.2	75.7	3.8	102.0	1.0
75	74.3	5.1	72.7	6.0	94.7	4.2
90	64.7	5.7	67.3	6.7	92.0	10.4
120	54.3	5.1	51.0	1.0	84.7	6.1



Figure S1. Representative chromatogram UHPLC-MS/MS of standard COR at100 ppb.



Figure S2. Representative chromatogram UHPLC-MS/MS of sample



Figure S3. Representative chromatogram UHPLC-MS/MS of standard ADE at 100 ppb.





Figure S4. Representative chromatogram UHPLC-MS/MS of real sample.