SUPPLEMENTARY DATA

Simultaneous determination of some heterocyclic amines (HCAs) in processed foods by liquid chromatography tandem mass spectrometry (LC-MS/MS)

Phung Cong Ly[1,2], Tran Cao Son[1,3], Bui Cao Tien[1], Nguyen Thi Anh Huong[2], Nguyen Thi Hong Ngoc[1,3*]

[1]National Institute for Food Control, Hanoi, Vietnam

[2]Faculty of Chemistry, University of Science, Vietnam National University, Hanoi, Vietnam

[3]Faculty of Analytical Chemistry and Drug Quality Control, Hanoi University of Pharmacy, Hanoi, Vietnam

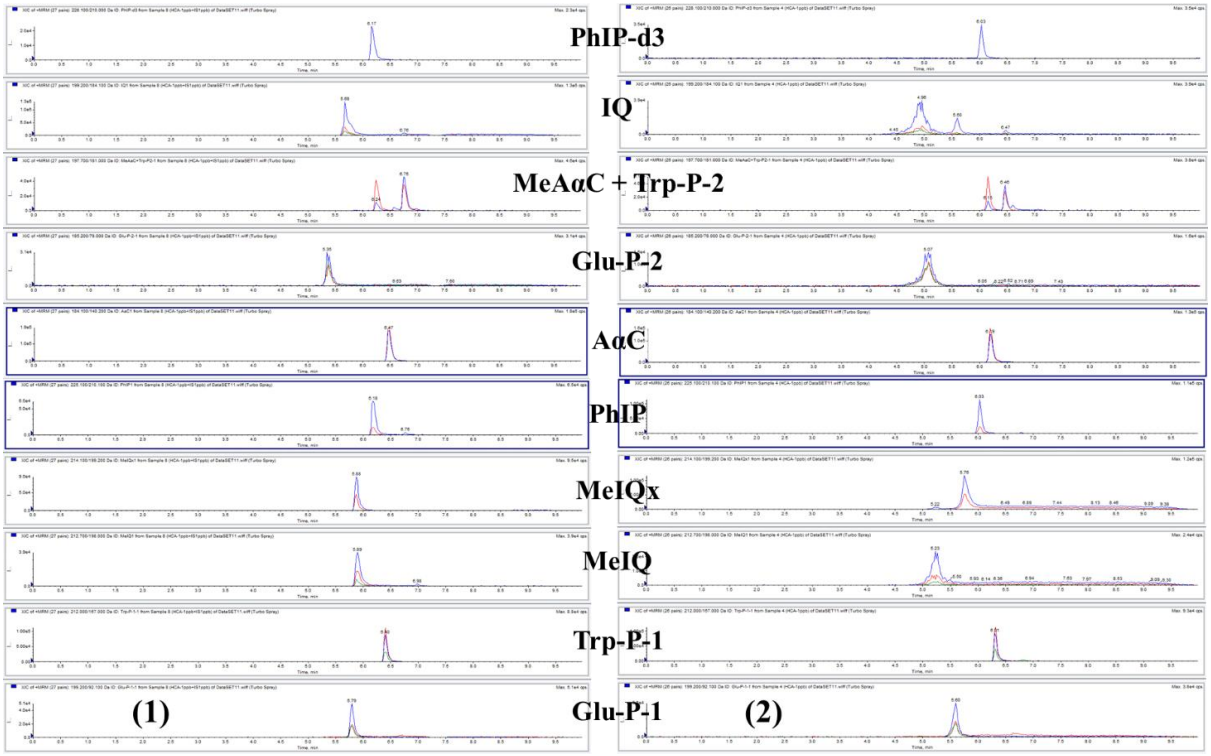

Figure S1. *Chromatography of 10 HCAs in dynamic phase solvents*

(1) 0.1% formic acid in water (channel A) and methanol (channel B);

(2) 0.1% formic acid in water (channel A) and acetonitrile (channel B).

* *Corresponding author: Nguyen Thi Hong Ngoc (E-mail: ngocnth@nifc.gov.vn)*

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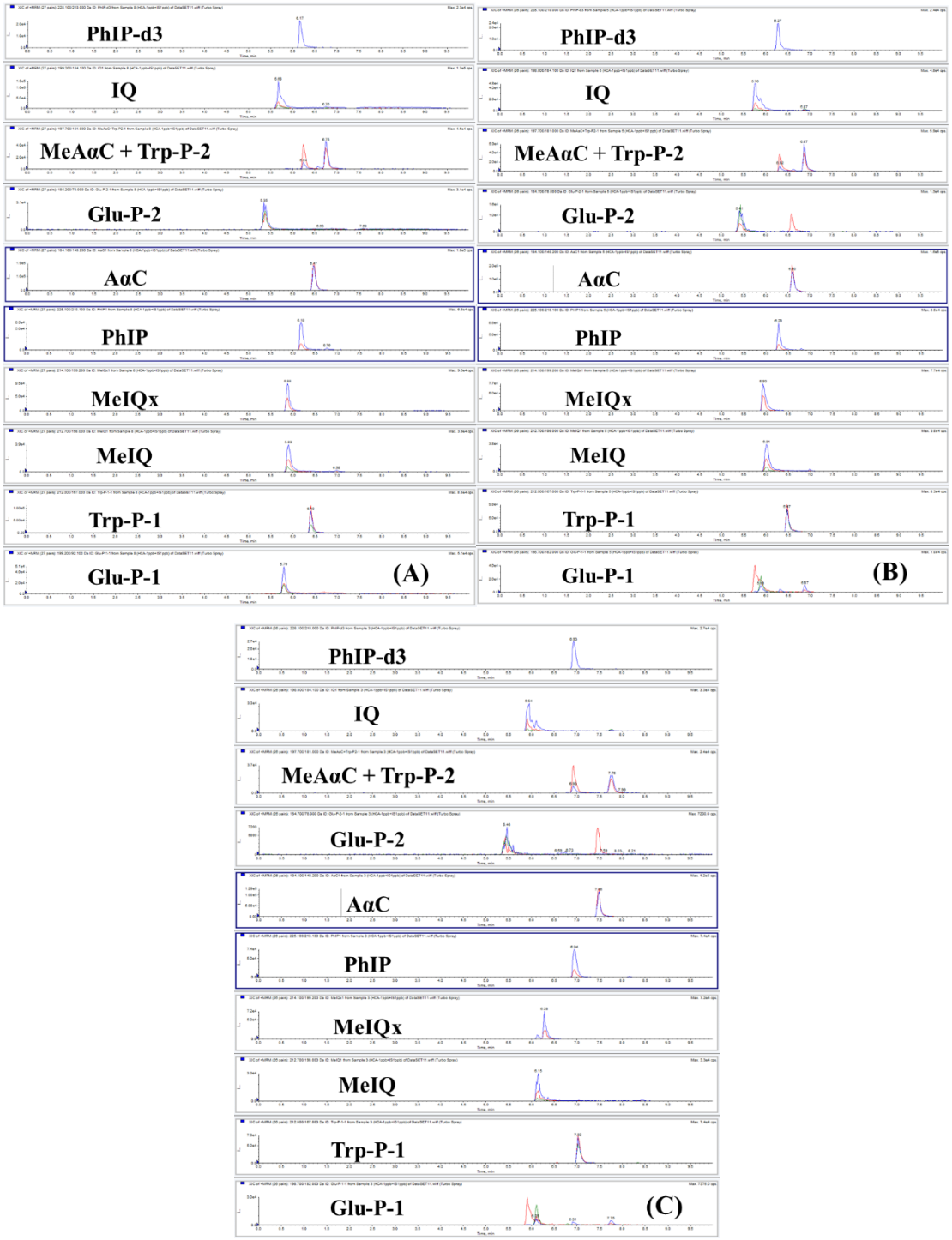

Figure S2. *Chromatography of 10 HCAs in different chromatographic columns (A) Symmetry C18 (150 mm x 3.0 mm x 3.5 µm); (B) Symmetry C18 (100 mm x 2.1 mm x 3.5 µm) and (C) Eclipse Plus C18 (150 mm x 2.1 mm x 3.5 µm).*

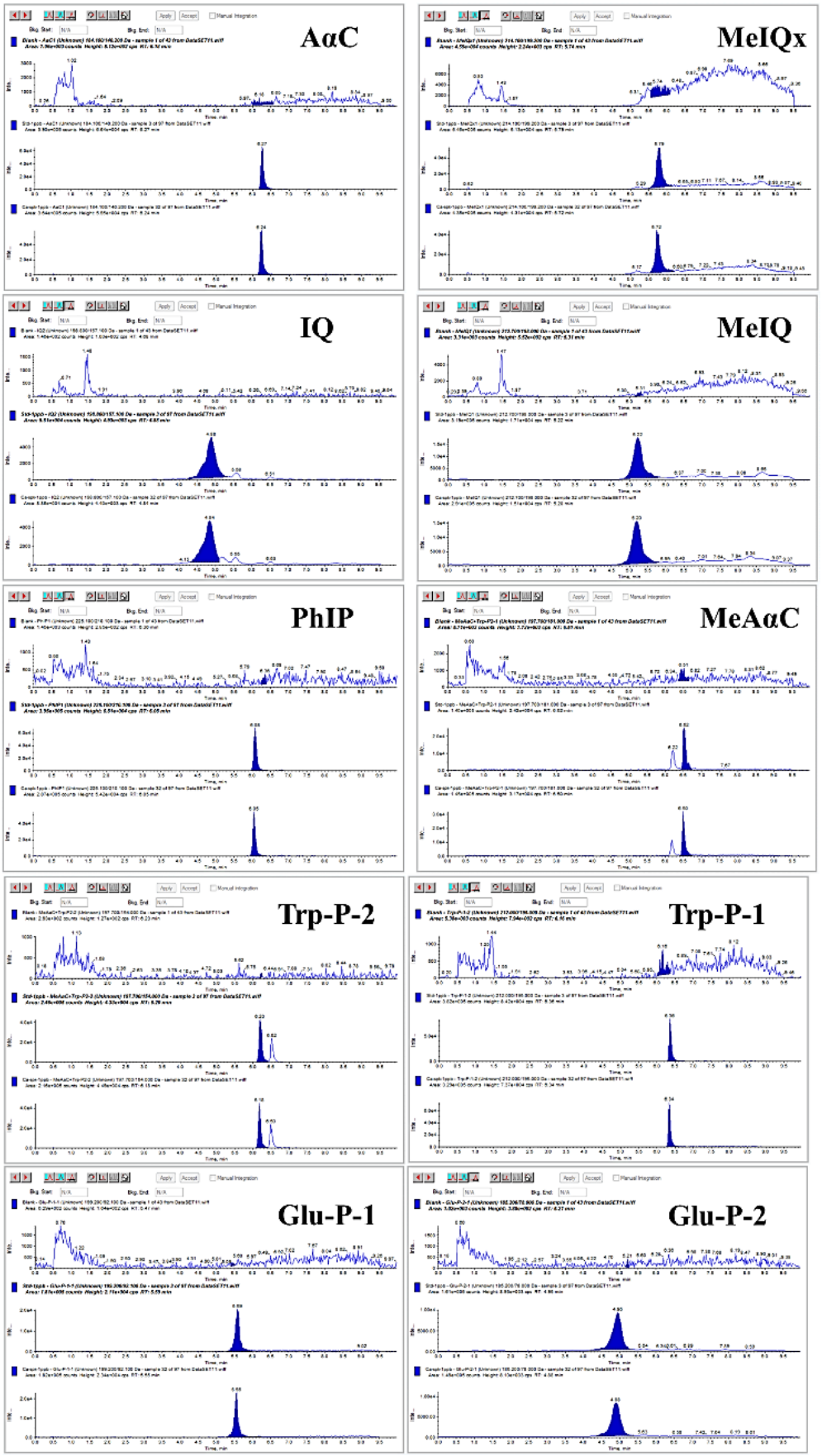

Figure S3. *Chromatography of 10 HCAs in the white sample, HCAs 1.0 ng/mL standard solution and white sample with HCAs 1.0 ng/mL*

Table S1. *Purity, code and lot of standards and internal standards used in research*

No.	Analytes	Purity (%)	Code	Lot
1.	IQ	98	A616500	2-NOS-34-2
2.	MeIQ	96	A605200	15-QIU-171-1
3.	MeIQx	98	A606600	6-SKR-158-2
4.	PhIP	98	A617000	7-RCD-119-3
5.	AαC	98	A629000	11-BHW-90-2
6.	MeAαC	97	A617500	16-ZCA-65-2
7.	Glu-P-1	96	A616100	17-ISU-124-2
8.	Glu-P-2	95	A608801	2-SKR-30-1
9.	Trp-P-1	97	A607500	68808-54-8
10.	Trp-P-2	95	A618001	1-CSZ-111-6
11.	AαC-$^{15}N_3$	97	A629002	8-NOT-38-2
12.	MeIQx-d_3	97	A606850	1-ASC-109-1
13.	PhIP-d_3	98	A617350	16-BHW-57-1

Table S2. *Comparison table of ion strength ratios*

No.	Analytes	Product ion (m/z)	IR% (Standard sample)	IR% (Spike sample)	Deviation R_{diff} %	Requirements
1	IQ	184.1	Quantification	Quantification	-	-
		157.1	27.0	25.2	- 6.61	± 40%
		130.2	16.6	0.15	- 9.75	± 40%
2	MeIQ	198.0	Quantification	Quantification	-	-
		197.0	47.3	43.6	- 7.80	± 40%
		170.0	13.2	15.4	17.2	± 40%
3	MeIQx	199.2	Quantification	Quantification	-	-
		131.1	49.8	54.0	8.44	± 40%
4	PhIP	210.1	Quantification	Quantification	-	-
		140.0	21.7	26.0	19.9	± 40%
5	AαC	140.2	81.3	85.8	5.66	± 40%
		167.1	Quantification	Quantification	-	-
6	MeAαC	181.0	Quantification	Quantification	-	-
		154.0	76.6	79.7	4.14	± 40%
7	Glu-P-1	92.1	Quantification	Quantification	-	-
		65.1	47.7	46.8	- 2.05	± 40%
		145.2	41.9	39.2	- 6.45	± 40%
8	Glu-P-2	78.0	Quantification	Quantification	-	-
		131.1	61.3	57.9	- 5.61	± 40%
		158.2	65.0	63.9	- 1.71	± 40%
9	Trp-P-1	167.0	Quantification	Quantification	-	-
		195.0	86.9	85.4	- 1.73	± 40%
		168.0	40.6	40.7	0.38	± 40%
10	Trp-P-2	181.0	28.1	27.9	- 0.92	± 40%
		154.0	Quantification	Quantification	-	-