

Supplementary Material

Table S1. Chromatographic and mass spectral data acquired in (-)-HESI for each analyte and the internal standard (IS).

[illegible]

Catechin	8.27	C ₁₅ H ₁₄ O ₆	C ₁₅ H ₁₆ O ₆ ⁻	289.0718	289.0720	-0.69	245.0817/ 205.0499/ 179.0344/ 165.0182/ 137.020 / 109.0279
Epicatechin	8.58	C ₁₅ H ₁₄ O ₆	C ₁₅ H ₁₃ O ₆ ⁻	289.0718	289.0720	-0.69	245.0821/ 205.0503/ 179.0341/ 165.0182/ 137.031/ 109.0279
Epicatechin gallate	9.18	C ₂₂ H ₁₈ O ₁₀	C ₂₂ H ₁₇ O ₁₀ ⁻	441.0827	441.0831	-0.91	n.d.
Epigallocatechin	7.89	C ₁₅ H ₁₄ O ₇	C ₁₅ H ₁₃ O ₇ ⁻	305.0667	305.0668	-0.33	n.d.
Epigallocatechin gallate	8.67	C ₂₂ H ₁₈ O ₁₁	C ₂₂ H ₁₇ O ₁₁ ⁻	457.0776	457.0783	-1.53	n.d.
Flavonol glycosides							
Isoquercetin	8.97	C ₂₁ H ₂₀ O ₁₂	C ₂₁ H ₁₉ O ₁₂ ⁻	463.0882	463.0891	-1.94	301.0350/ 300.0279
Rutin	8.77	C ₂₇ H ₃₀ O ₁₆	C ₂₇ H ₂₉ O ₁₆ ⁻	609.1461	609.1469	-1.31	301.0361/ 300.0278/ 343.0461/ 271.0252
Stilbenes							
<i>trans</i> -Resveratrol	10.56	C ₁₄ H ₁₂ O ₃	C ₁₄ H ₁₁ O ₃ ⁻	227.0714	227.0711	1.32	185.0599/ 143.0490
E-Viniferin	11.68	C ₂₈ H ₂₂ O ₆	C ₂₈ H ₂₁ O ₆ ⁻	453.1344	453.1351	-1.54	n.d.
Piceid	9.03	C ₂₀ H ₂₂ O ₈	C ₂₀ H ₂₁ O ₈ ⁻	389.1242	389.1251	-2.31	227.0711
Phenylethanoids							
3-Hydroxytyrosol	7.59	C ₈ H ₁₀ O ₃	C ₈ H ₉ O ₃ ⁻	153.0546	153.0544	1.31	123.0436
Oleuropein	9.53	C ₂₅ H ₃₂ O ₁₃	C ₂₅ H ₃₁ O ₁₃ ⁻	539.1770	539.1779	1.67	377.1239, 275.0923, 307.0821
Cinnamic acid and derivatives							
<i>trans</i> -Cinnamic acid	12.00	C ₉ H ₈ O ₂	C ₉ H ₇ O ₂ ⁻	147.0441	147.0438	2.04	n.d.
Caffeic acid	8.75	C ₉ H ₈ O ₄	C ₉ H ₇ O ₄ ⁻	179.0339	179.0341	-1.12	135.0438
Chlorogenic acid	8.08	C ₁₆ H ₁₈ O ₉	C ₁₆ H ₁₇ O ₉ ⁻	353.0878	353.0882	-1.13	n.d.
<i>o</i> -Coumaric acid	10.22	C ₉ H ₈ O ₃	C ₉ H ₇ O ₃ ⁻	163.0390	163.0387	1.84	119.0487
<i>p</i> -Coumaric acid	9.39	C ₉ H ₈ O ₃	C ₉ H ₇ O ₃ ⁻	163.0390	163.0388	1.23	191.0554/ 179.0341
Ferulic acid	9.53	C ₁₀ H ₁₀ O ₄	C ₁₀ H ₉ O ₄ ⁻	193.0495	193.0499	-2.07	178.0263/ 149.0596/ 134.0359
Neochlorogenic acid	7.56	C ₁₆ H ₁₈ O ₉	C ₁₆ H ₁₇ O ₉ ⁻	353.0878	353.0883	-1.42	n.d.
Sinapic acid	9.41	C ₁₁ H ₁₂ O ₅	C ₁₁ H ₁₁ O ₅ ⁻	223.0612	223.0608	1.79	n.d.

Benzoic acid derivatives							
Gallic acid	4.68	C ₇ H ₆ O ₅	C ₇ H ₅ O ₅ ⁻	169.0131	169.0132	-0.59	125.0229/ 97.0278/ 81.0329
Syringic acid	8.81	C ₉ H ₁₀ O ₅	C ₉ H ₉ O ₅ ⁻	197.0444	197.0447	-1.52	182.0212/ 23.0079/ 121.0280/ 95.0122
Vanillic acid	9.58	C ₈ H ₈ O ₄	C ₈ H ₇ O ₄ ⁻	167.0339	167.0337	1.20	152.0103/ 123.0436/ 108.0201
Internal Standard							
Quercetin-d3 (IS)	11.02	C ₁₅ H ₇ D ₃ O ₇	C ₁₅ H ₆ D ₃ O ₇ ⁻	304.0531	304.0543	3.95	n.d.

Figures S1a-S9b: Example extracted ion chromatograms (XICs) of selected polar phenolics for each pre-treatment method tested for plasma and serum samples.

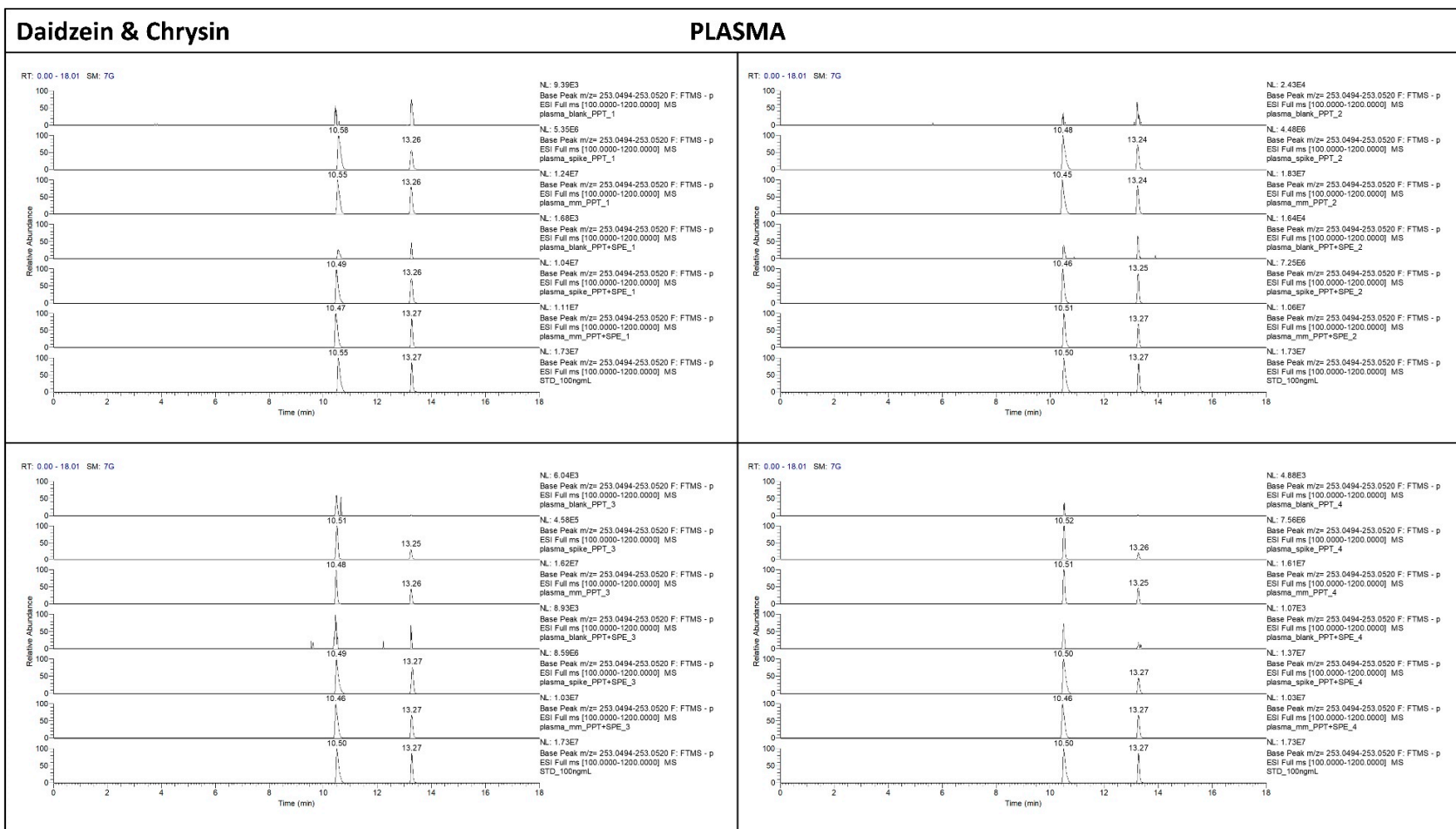


Figure S1a. Extracted ion chromatograms (XICs) of daidzein (10.50 min) and chrysin (13.27 min) for each pre-treatment method tested for plasma samples.

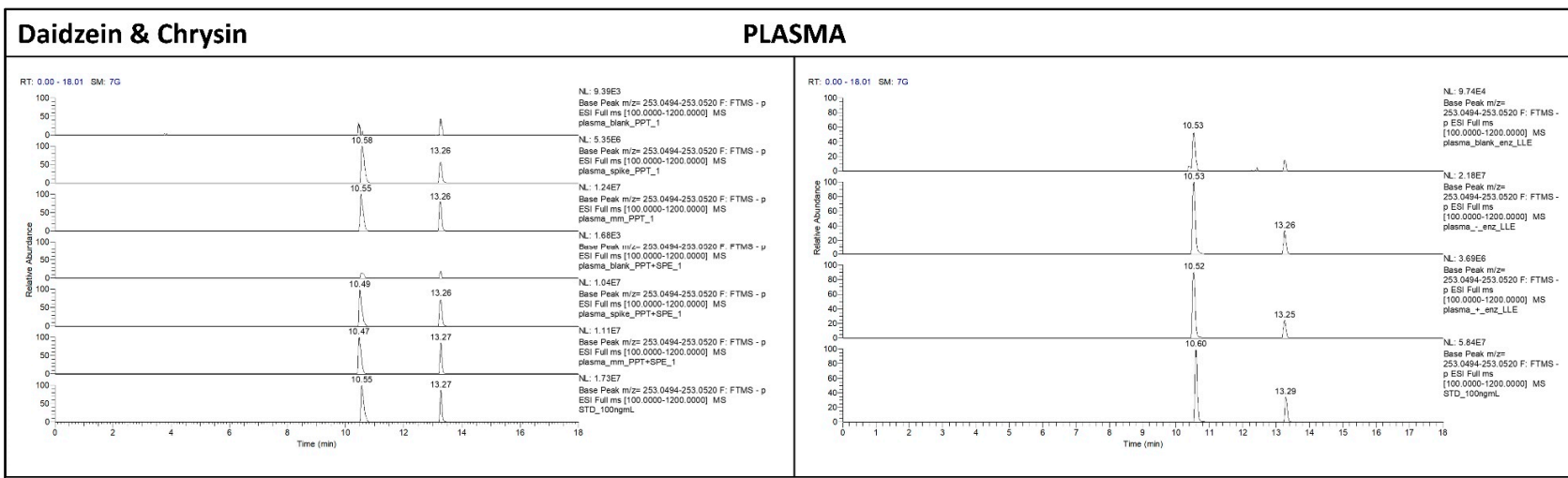


Figure S1a. (continued)

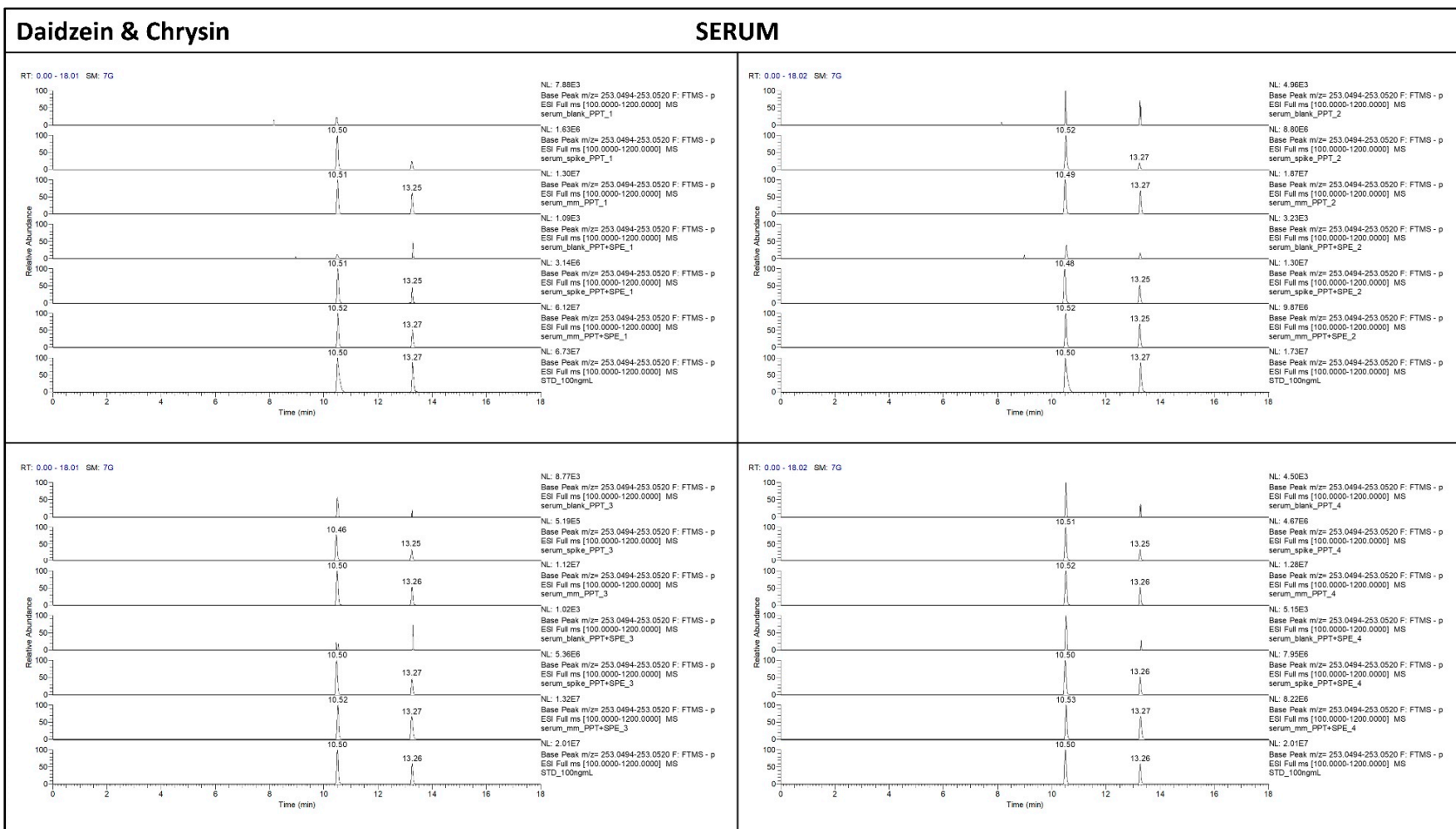


Figure S1b. Extracted ion chromatograms (XICs) of daidzein (10.50 min) and chrysin (13.27 min) for each pre-treatment method tested for serum samples.

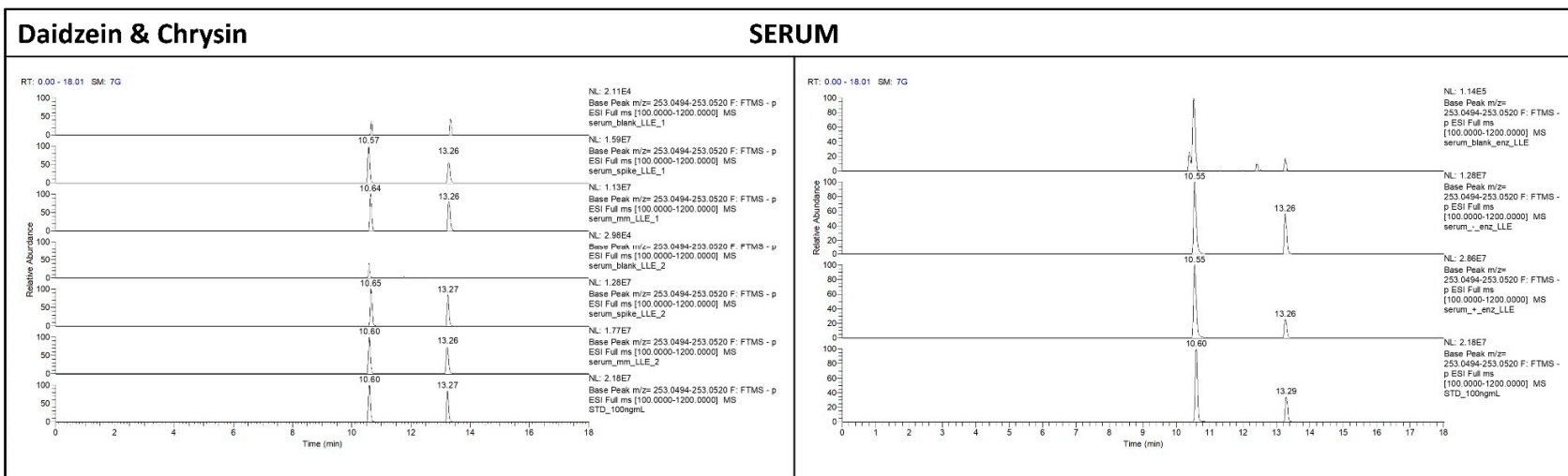


Figure S1b. (continued)

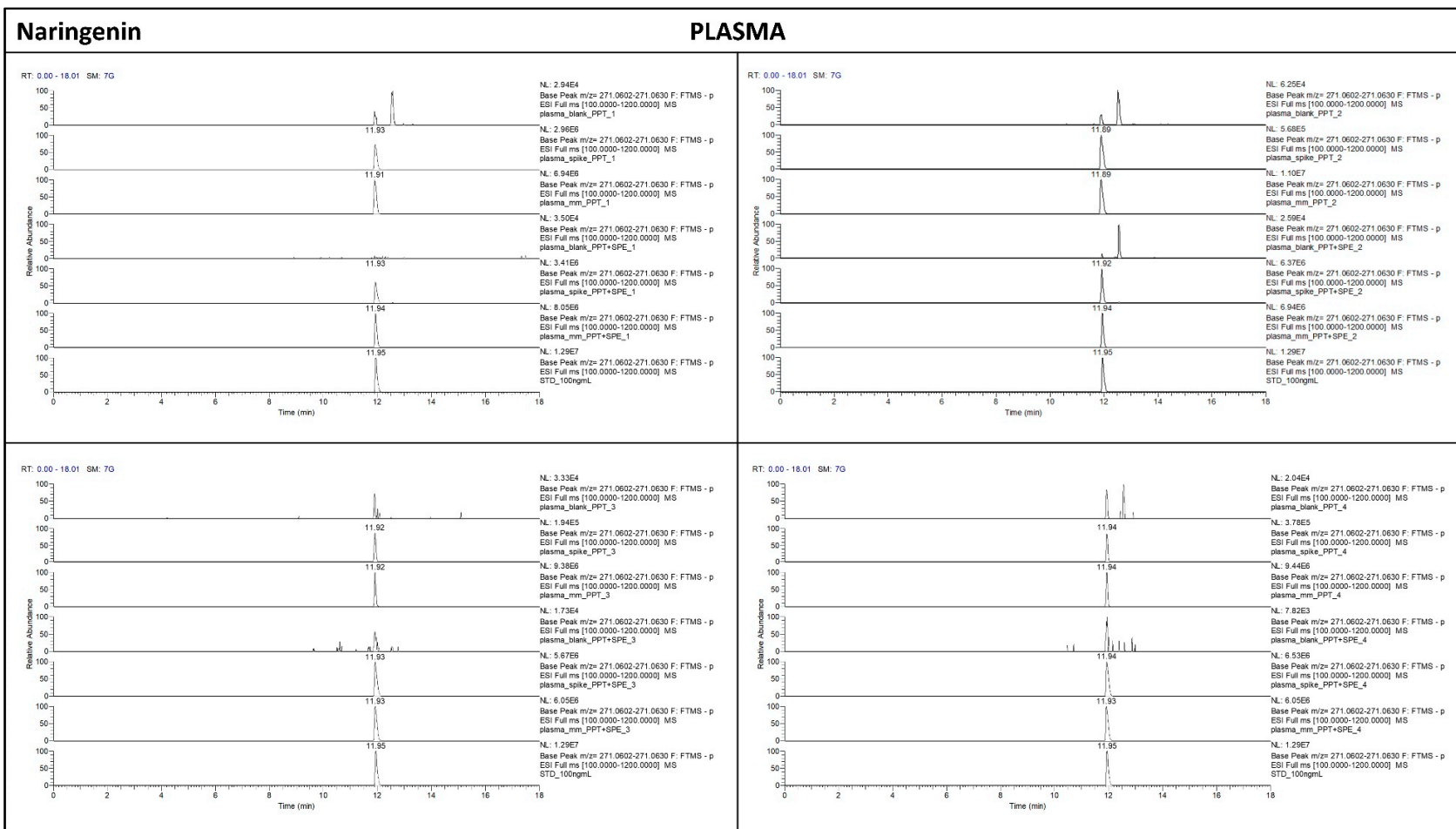


Figure S2a. Extracted ion chromatograms (XICs) of naringenin (11.95 min) for each pre-treatment method tested for plasma samples.

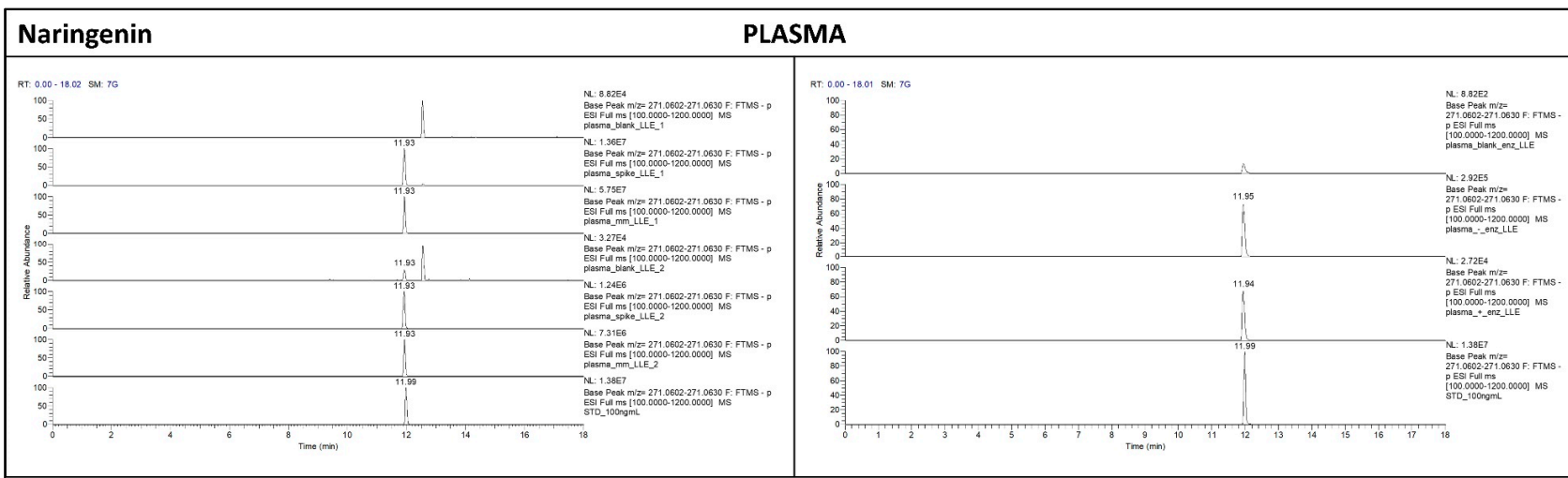


Figure S2a. (continued)

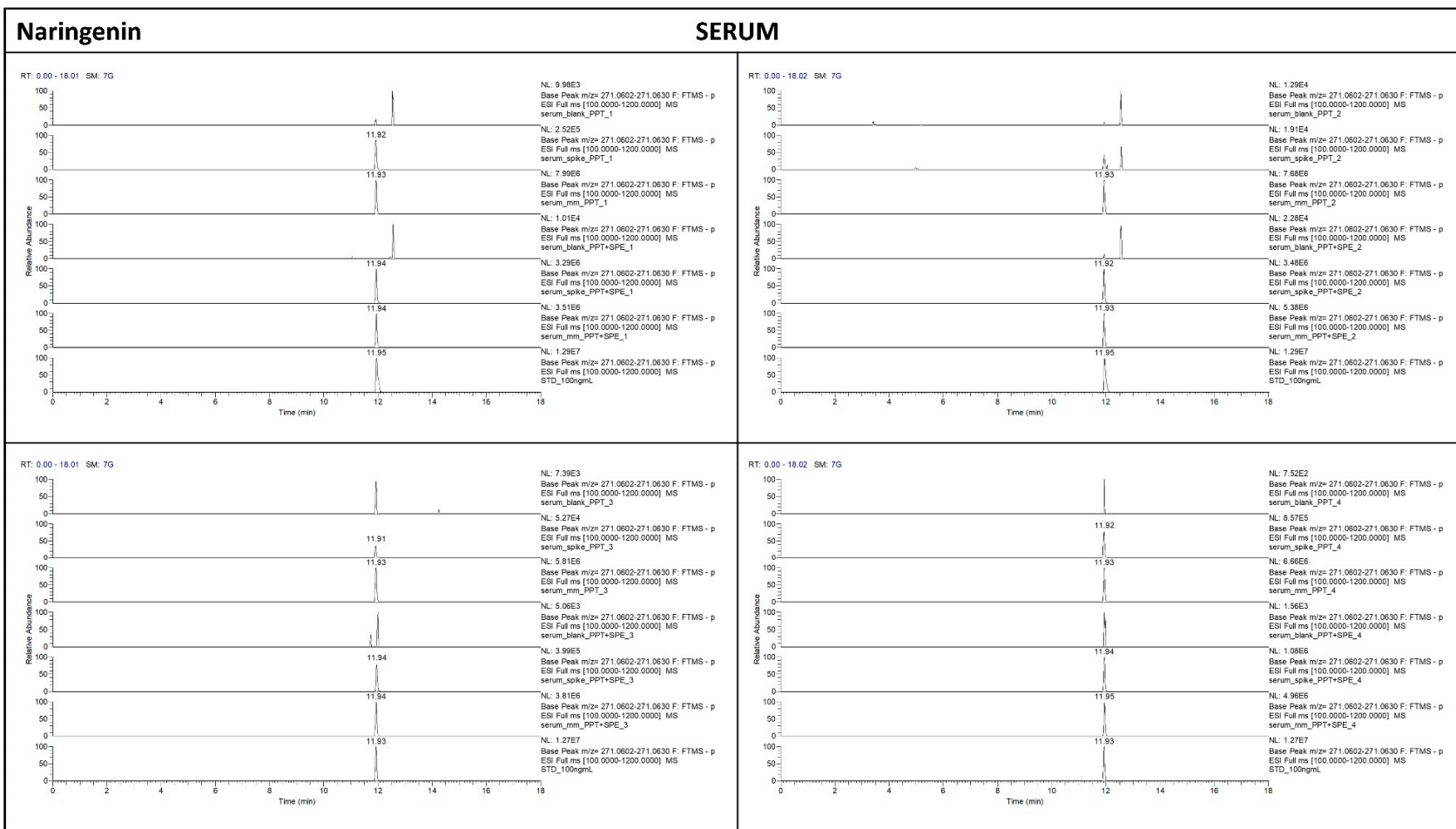


Figure S2b. Extracted ion chromatograms (XICs) of naringenin (11.95 min) for each pre-treatment method tested for serum samples.

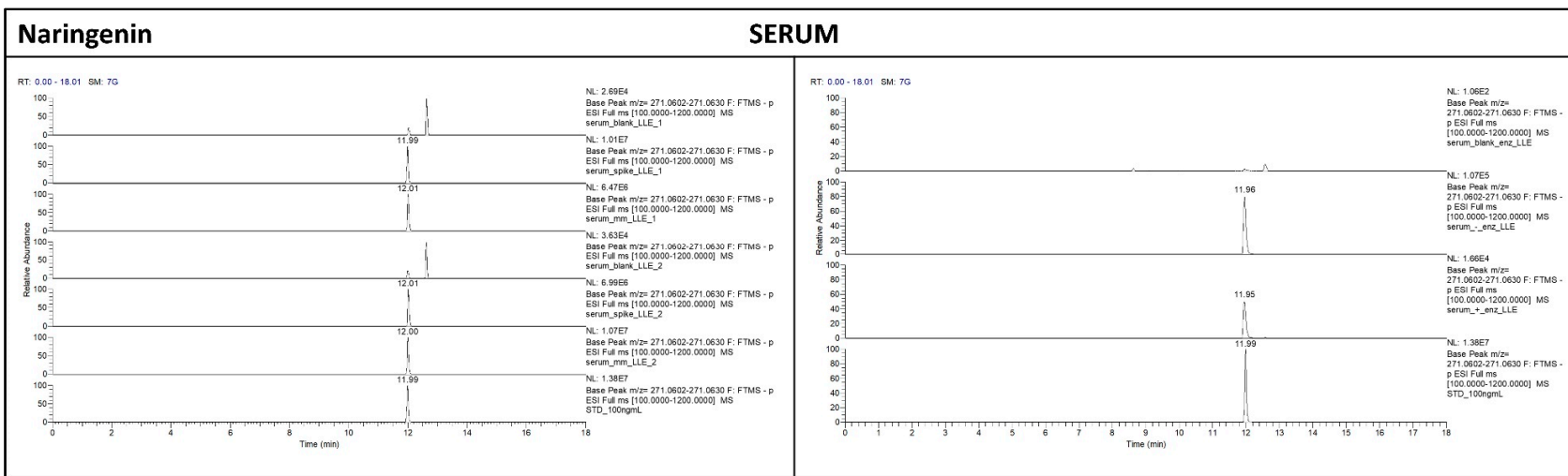


Figure S2b. (continued)

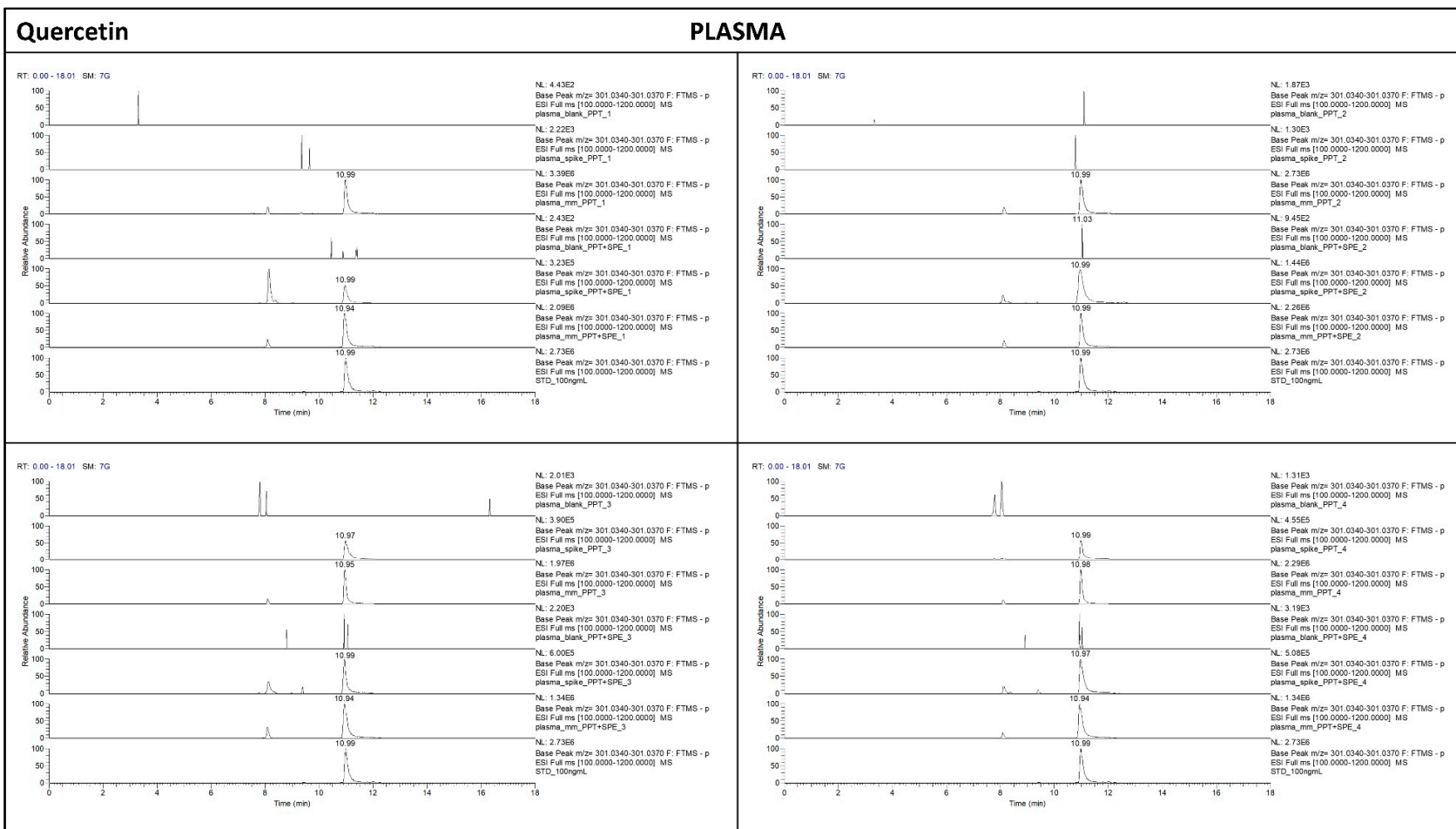


Figure S3a. Extracted ion chromatograms (XICs) of quercetin (10.99 min) for each pre-treatment method tested for plasma samples.

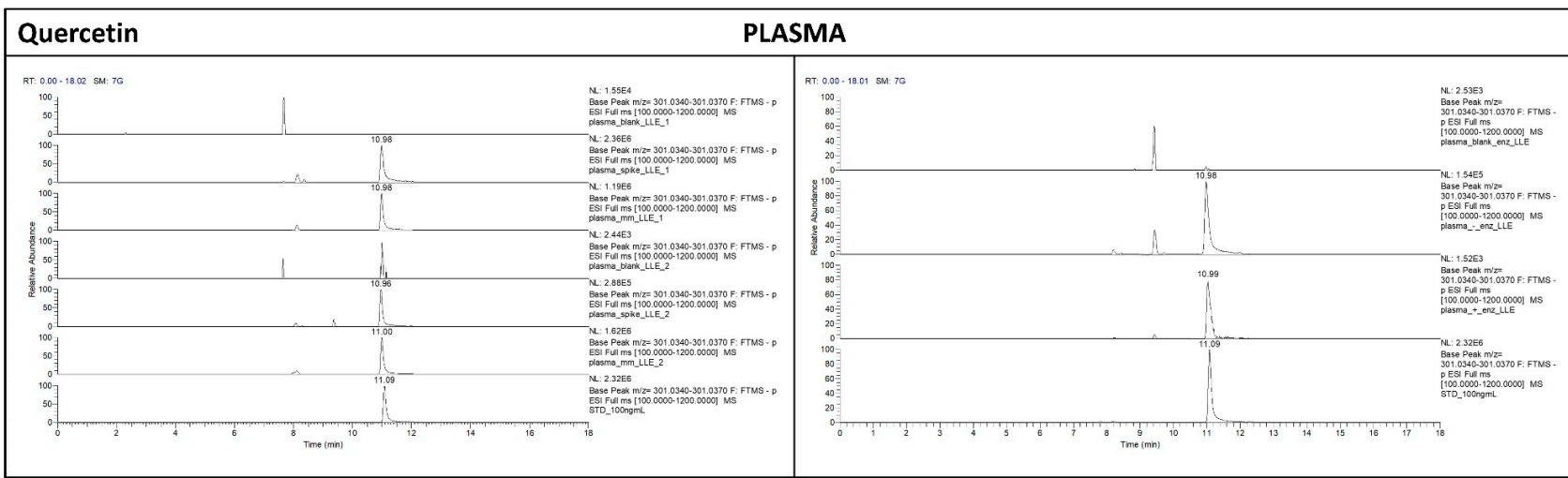


Figure S3a. (continued)

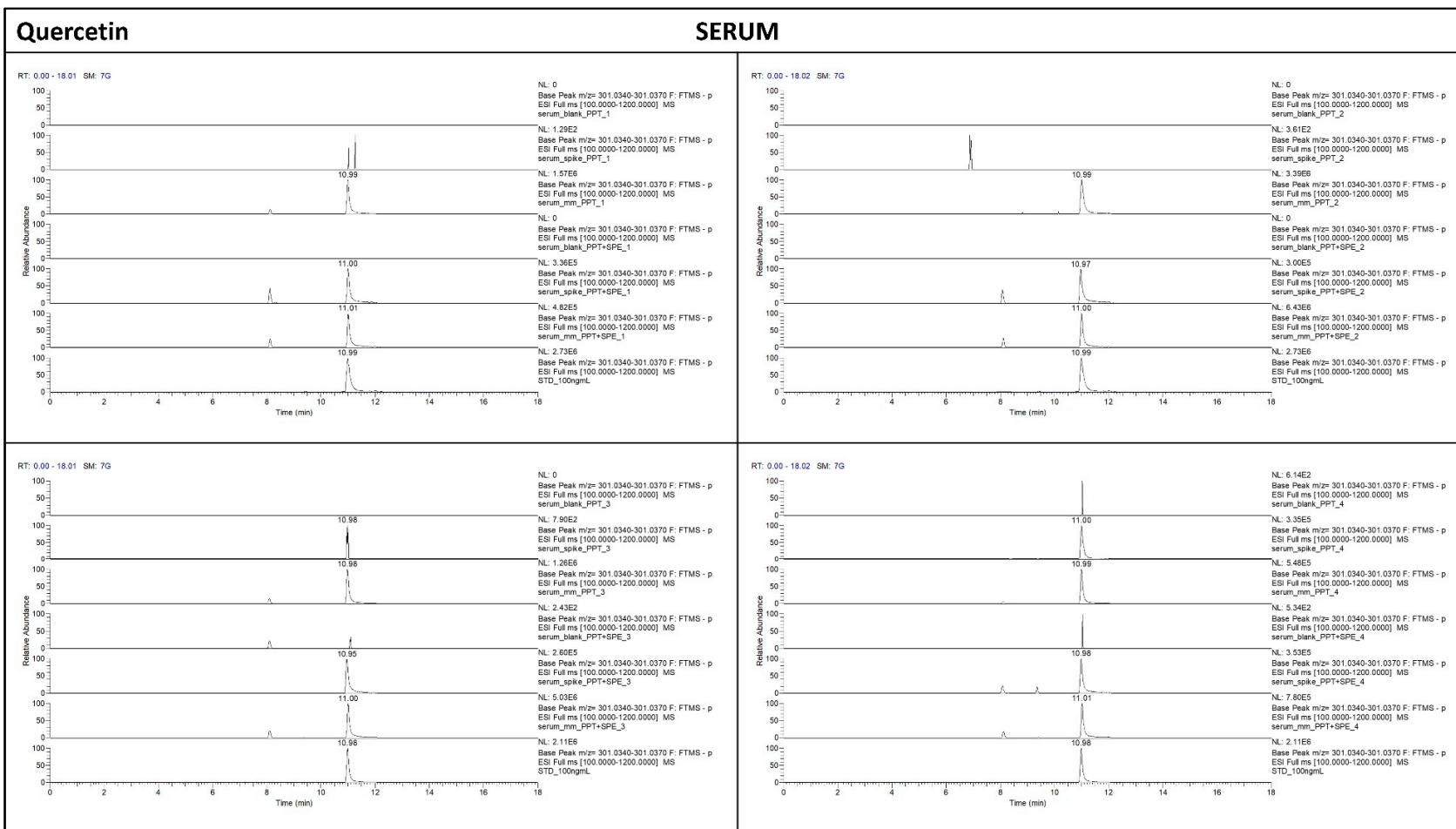


Figure S3b. Extracted ion chromatograms (XICs) of quercetin (10.99 min) for each pre-treatment method tested for serum samples.

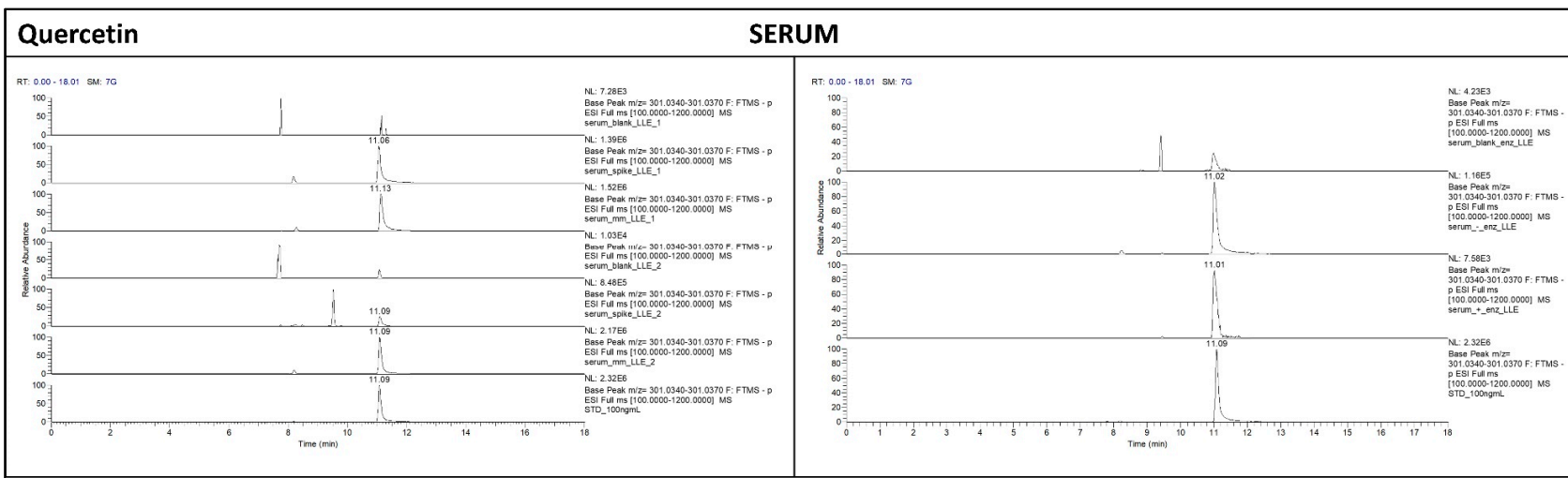


Figure S3b. (continued)

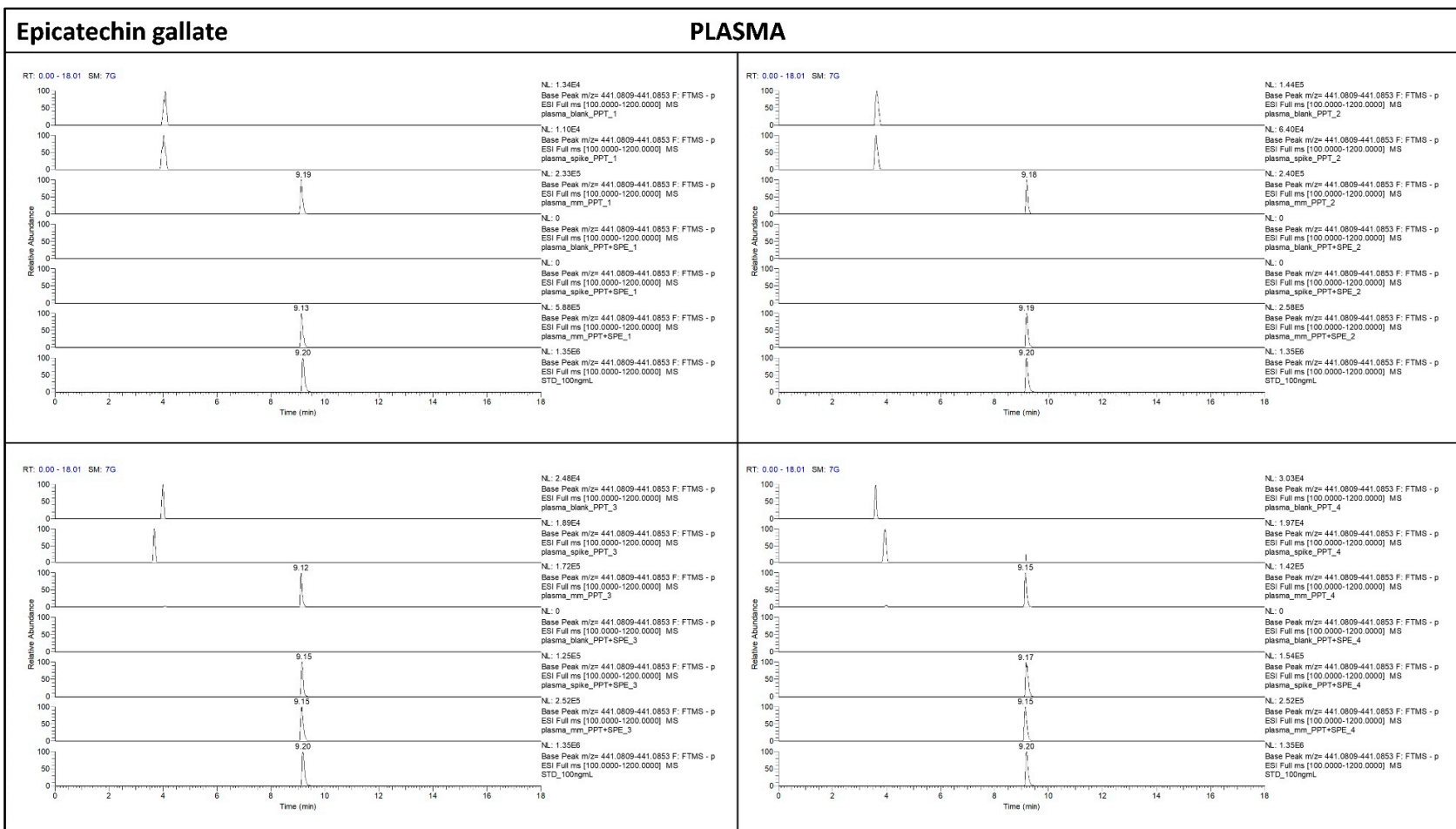


Figure S4a. Extracted ion chromatograms (XICs) of epicatechin gallate (9.20 min) for each pre-treatment method tested for plasma samples.

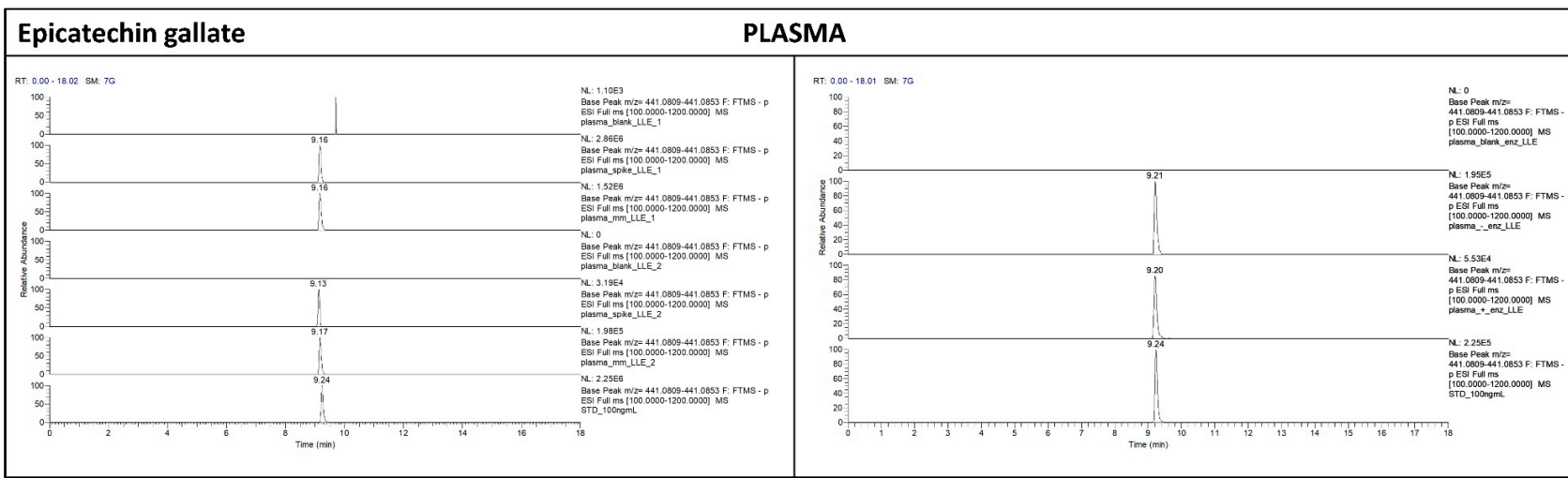


Figure S4a. (continued)

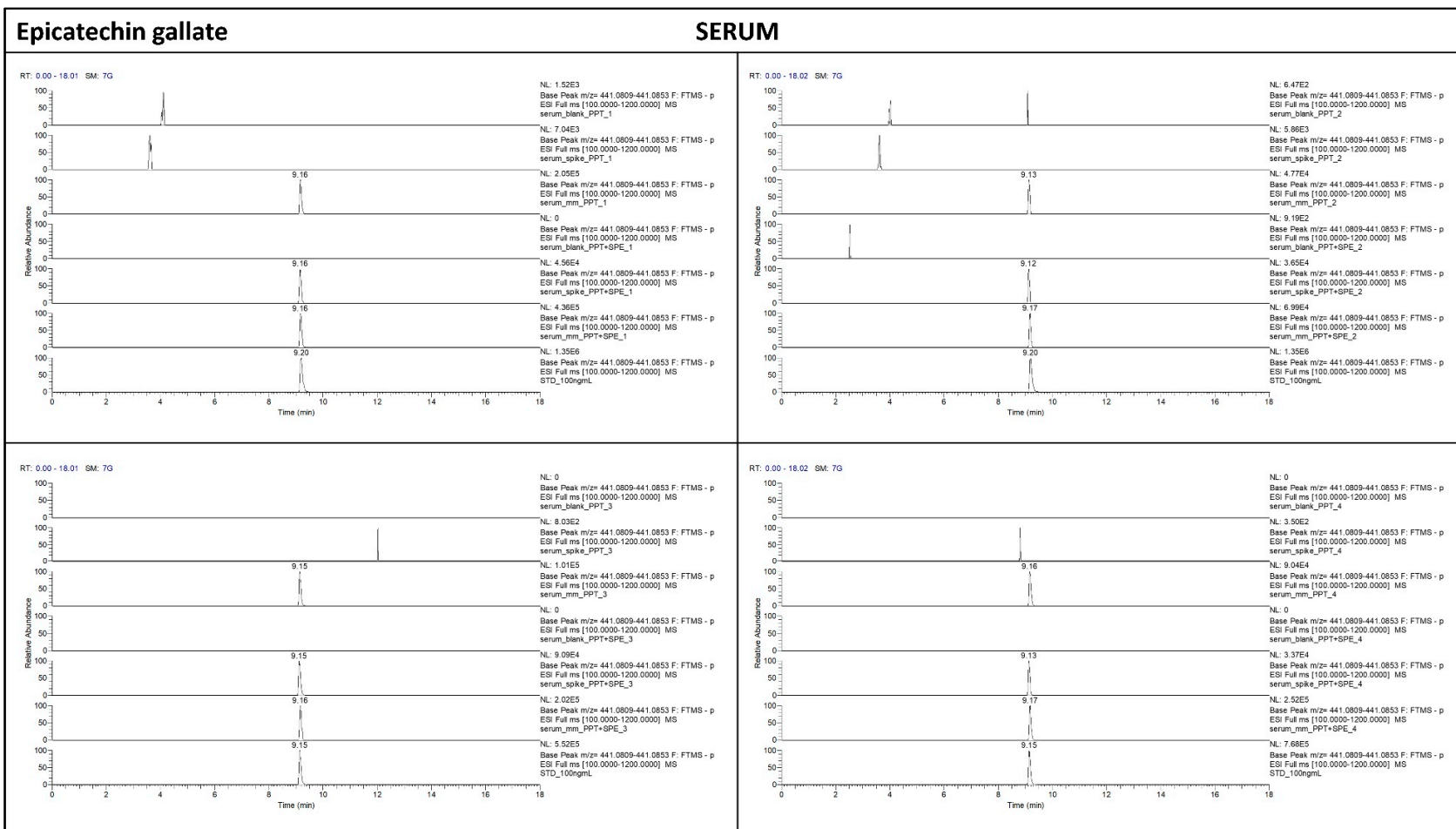


Figure S4b. Extracted ion chromatograms (XICs) of epicatechin gallate (9.20 min) for each pre-treatment method tested for serum samples.

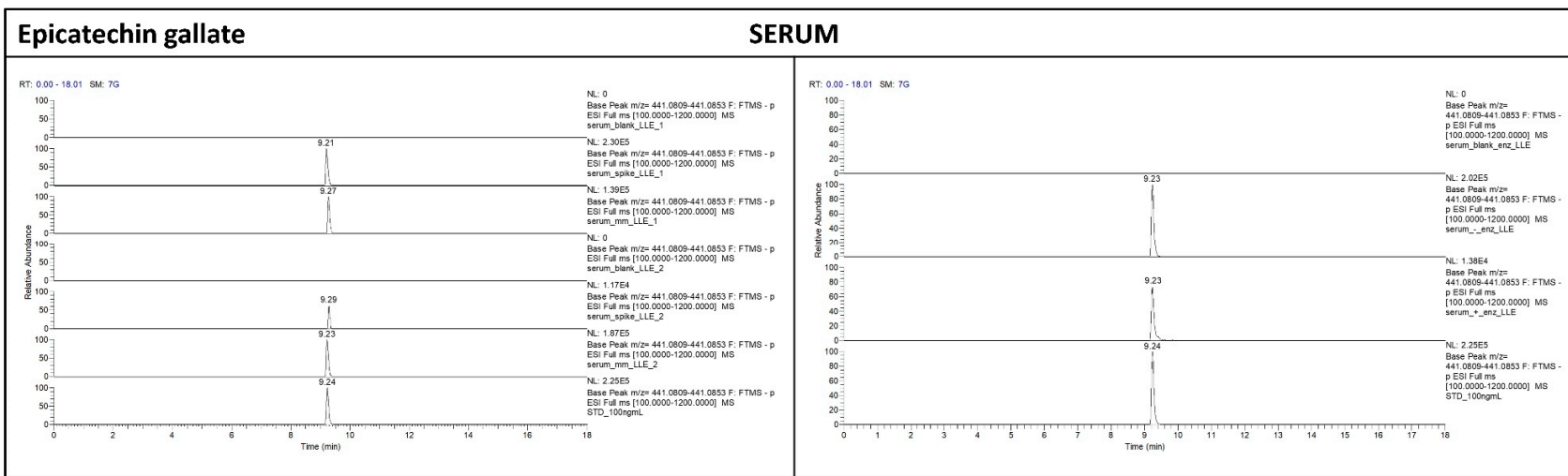


Figure S4b. (continued)

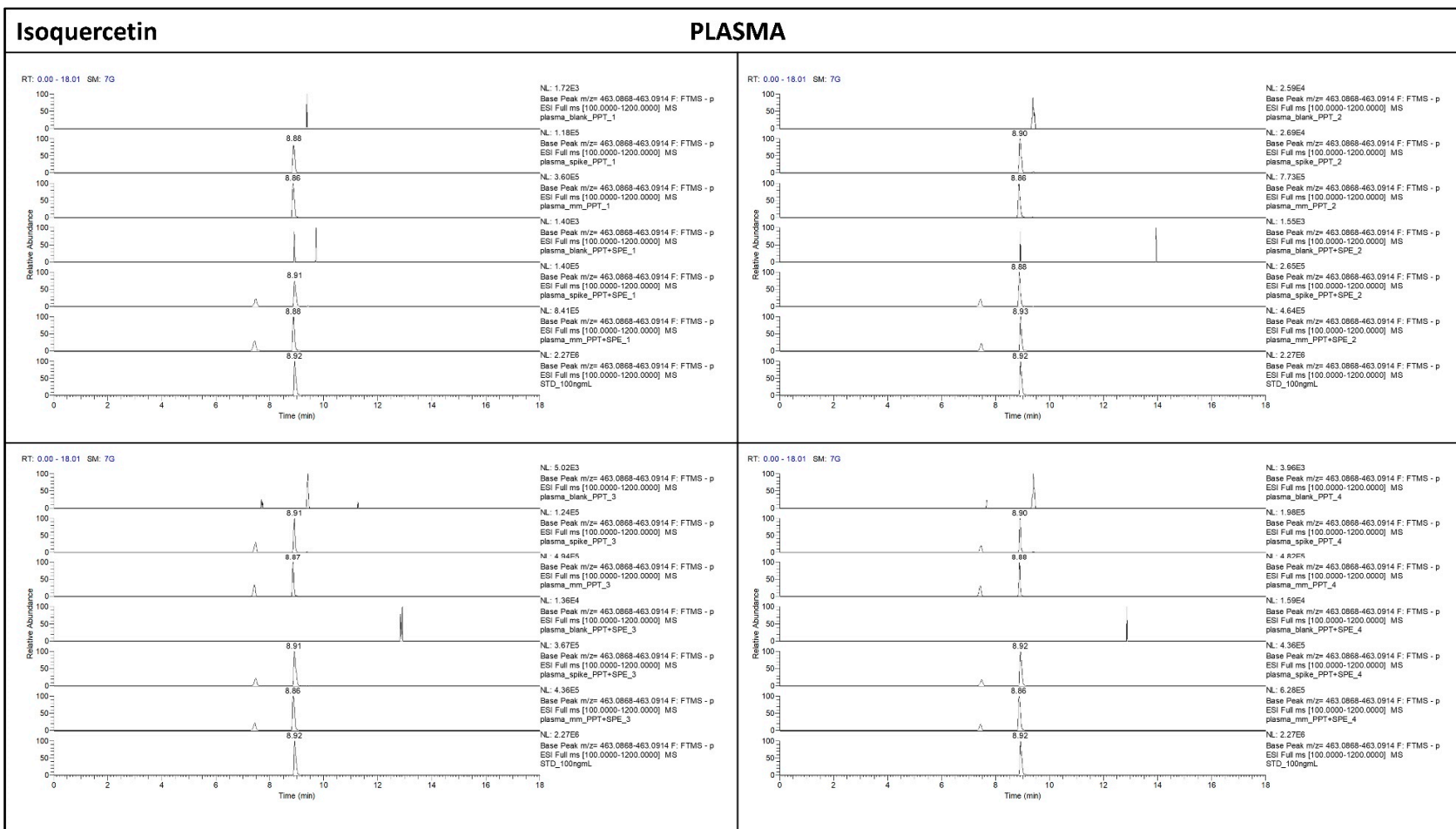


Figure S5a. Extracted ion chromatograms (XICs) of isoquercetin (8.92 min) for each pre-treatment method tested for plasma samples.

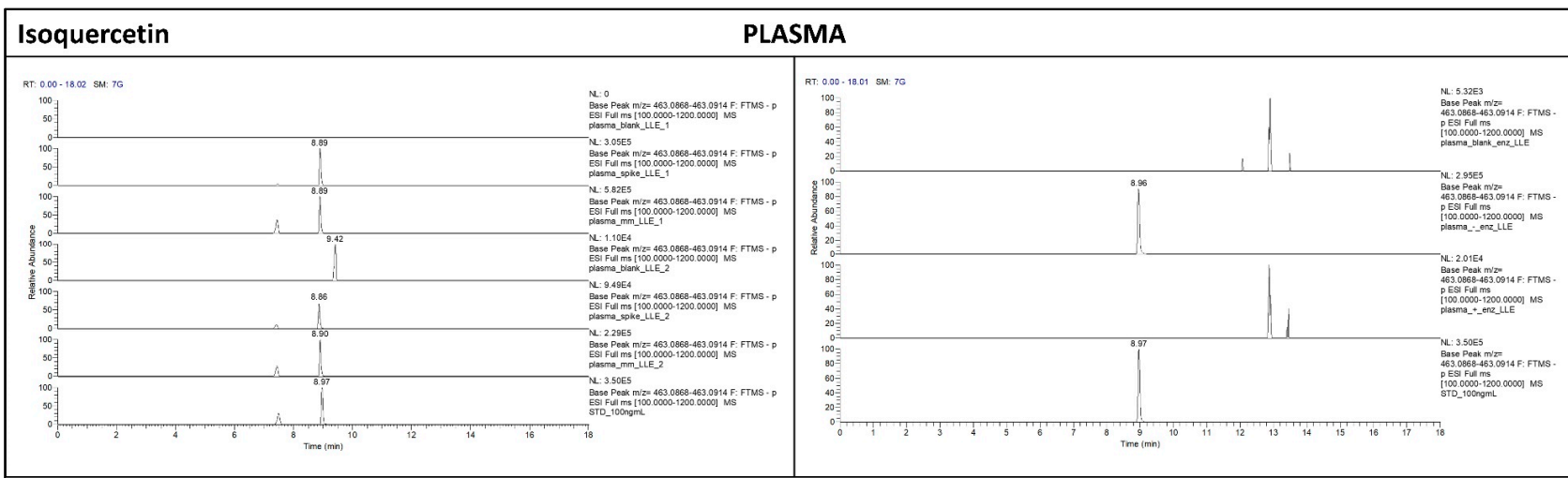


Figure S5a. (continued)

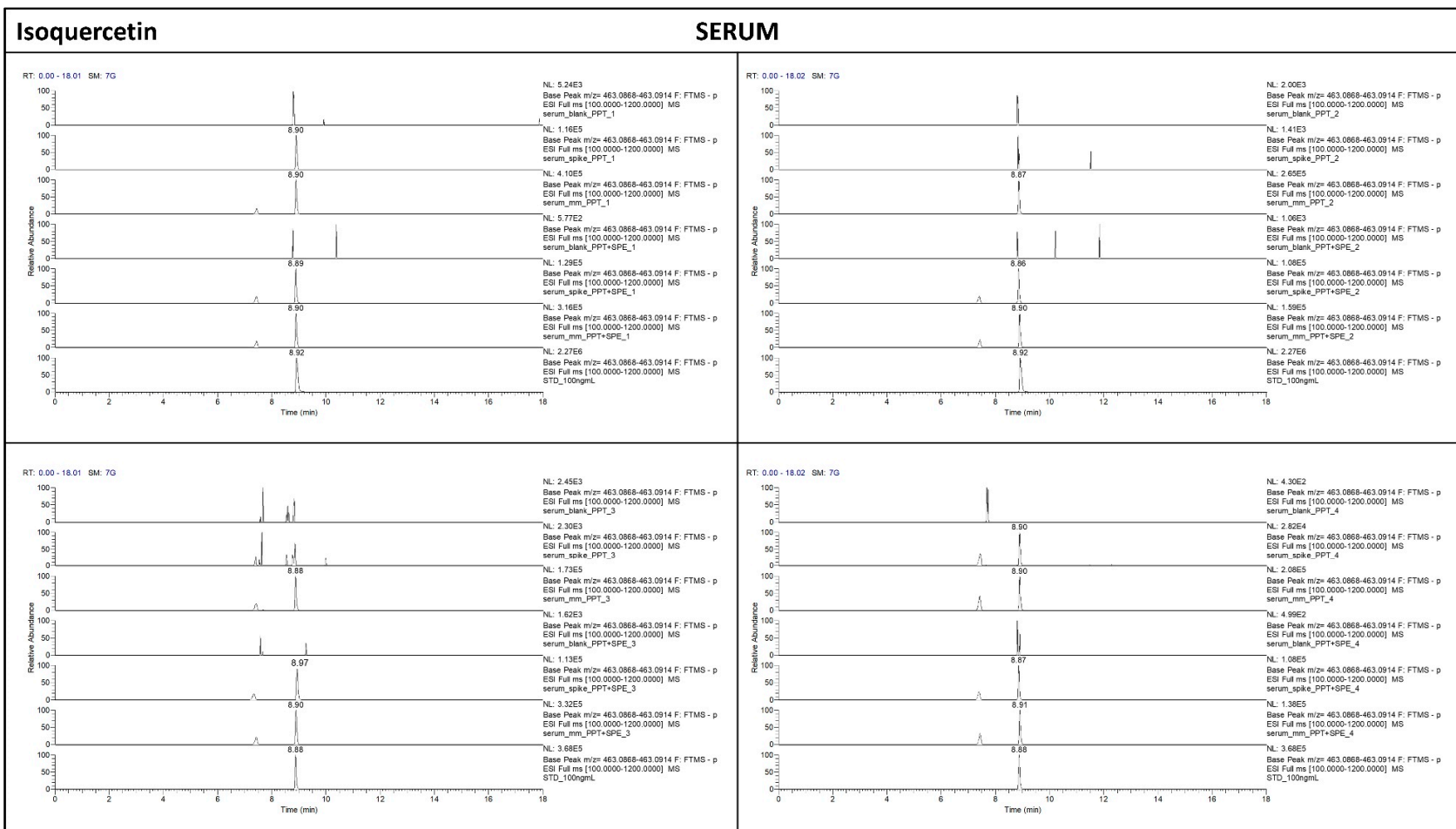


Figure S5b. Extracted ion chromatograms (XICs) of isoquercetin (8.92 min) for each pre-treatment method tested for serum samples.

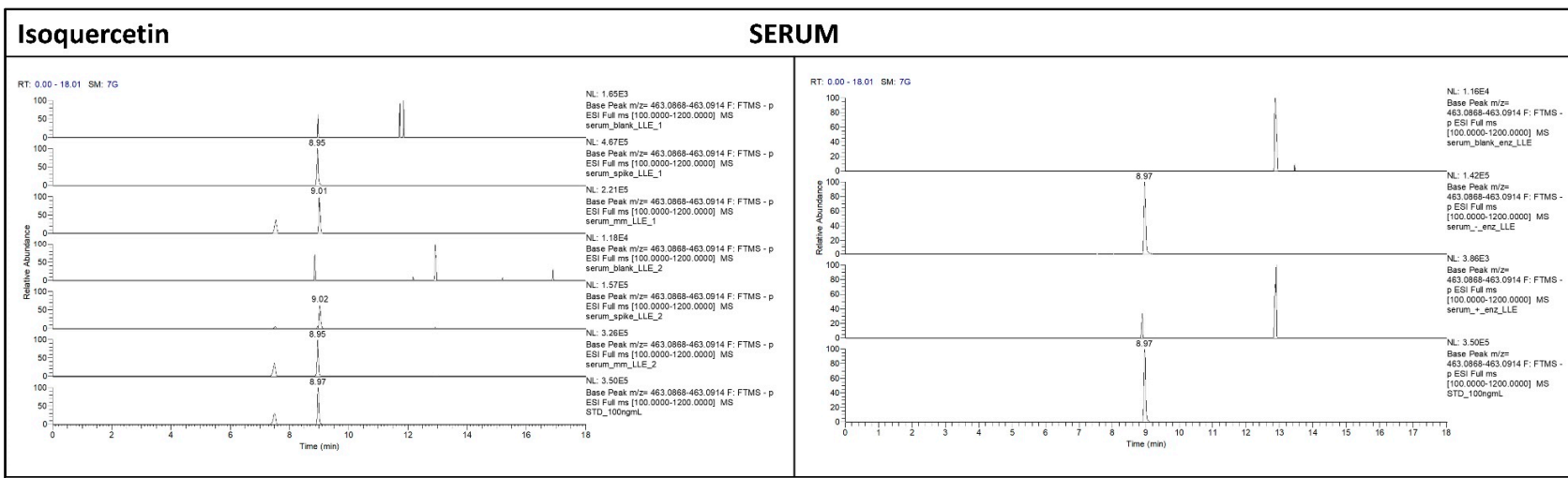


Figure S5b. (continued)

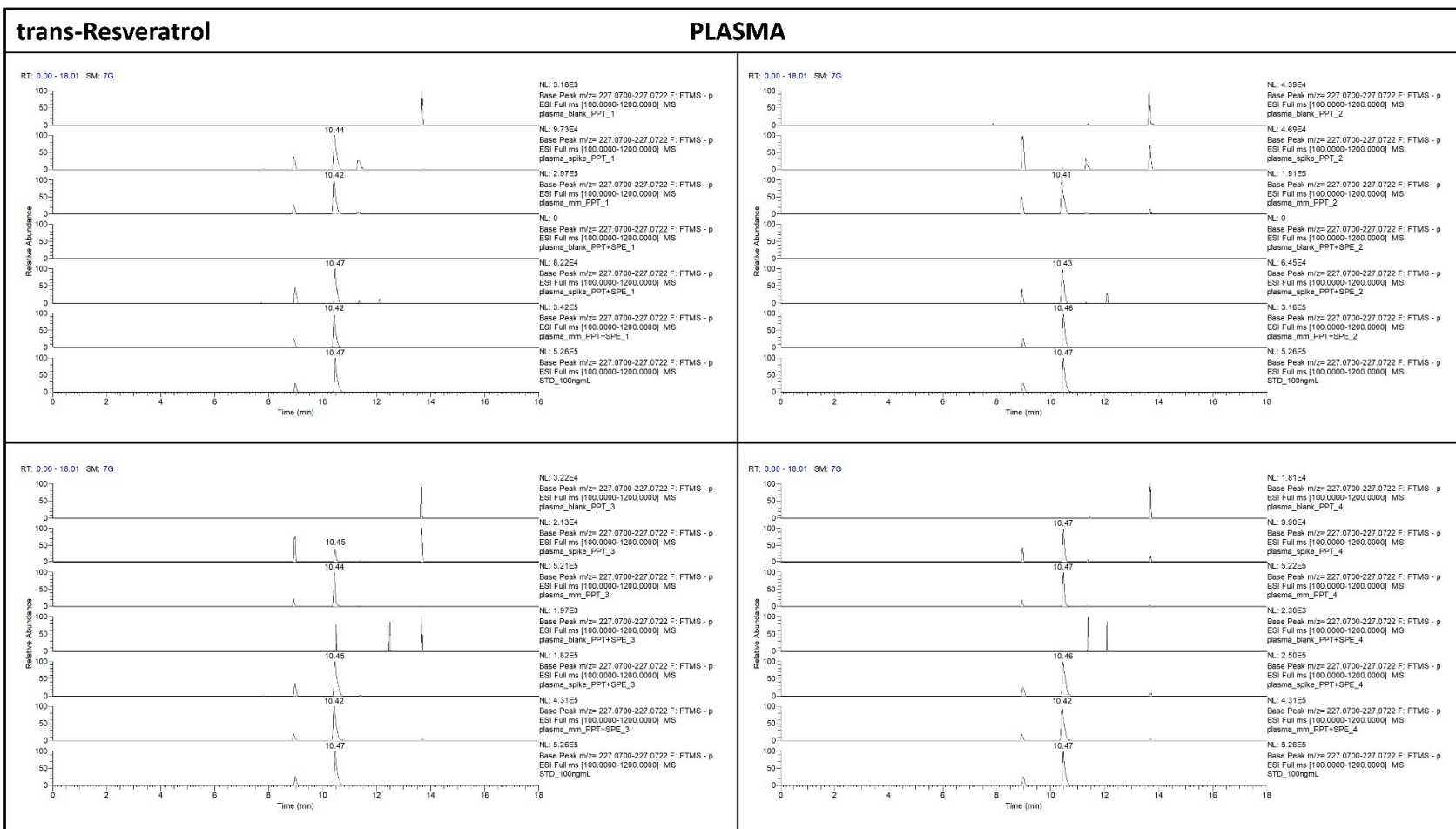


Figure S6a. Extracted ion chromatograms (XICs) of trans-resveratrol (10.47 min) for each pre-treatment method tested for plasma samples.

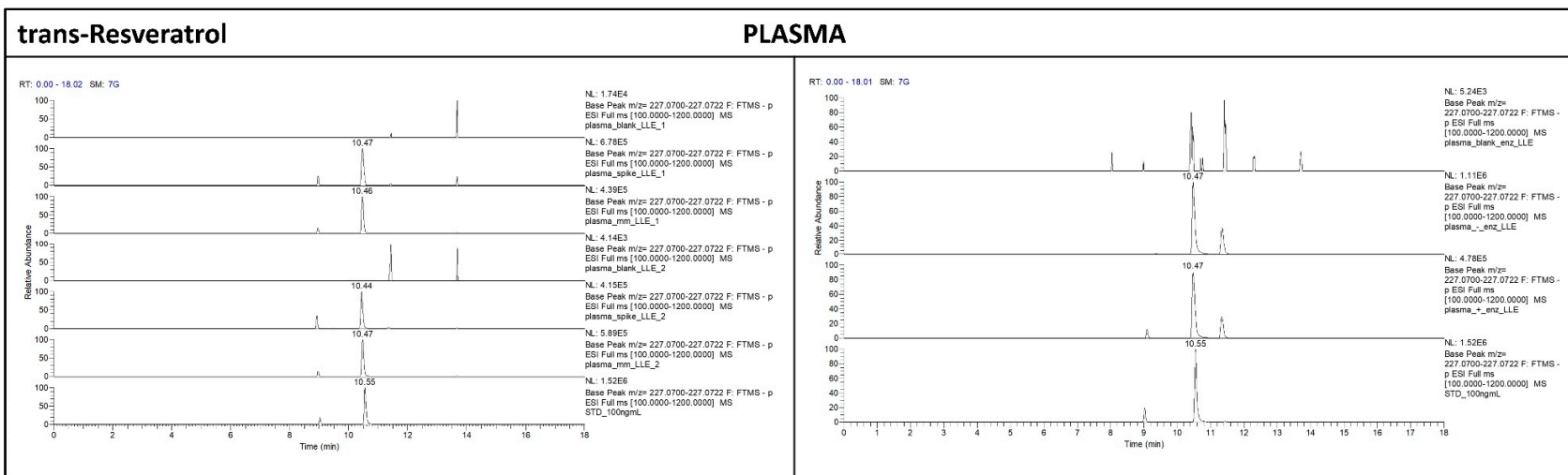


Figure S6a. (continued)

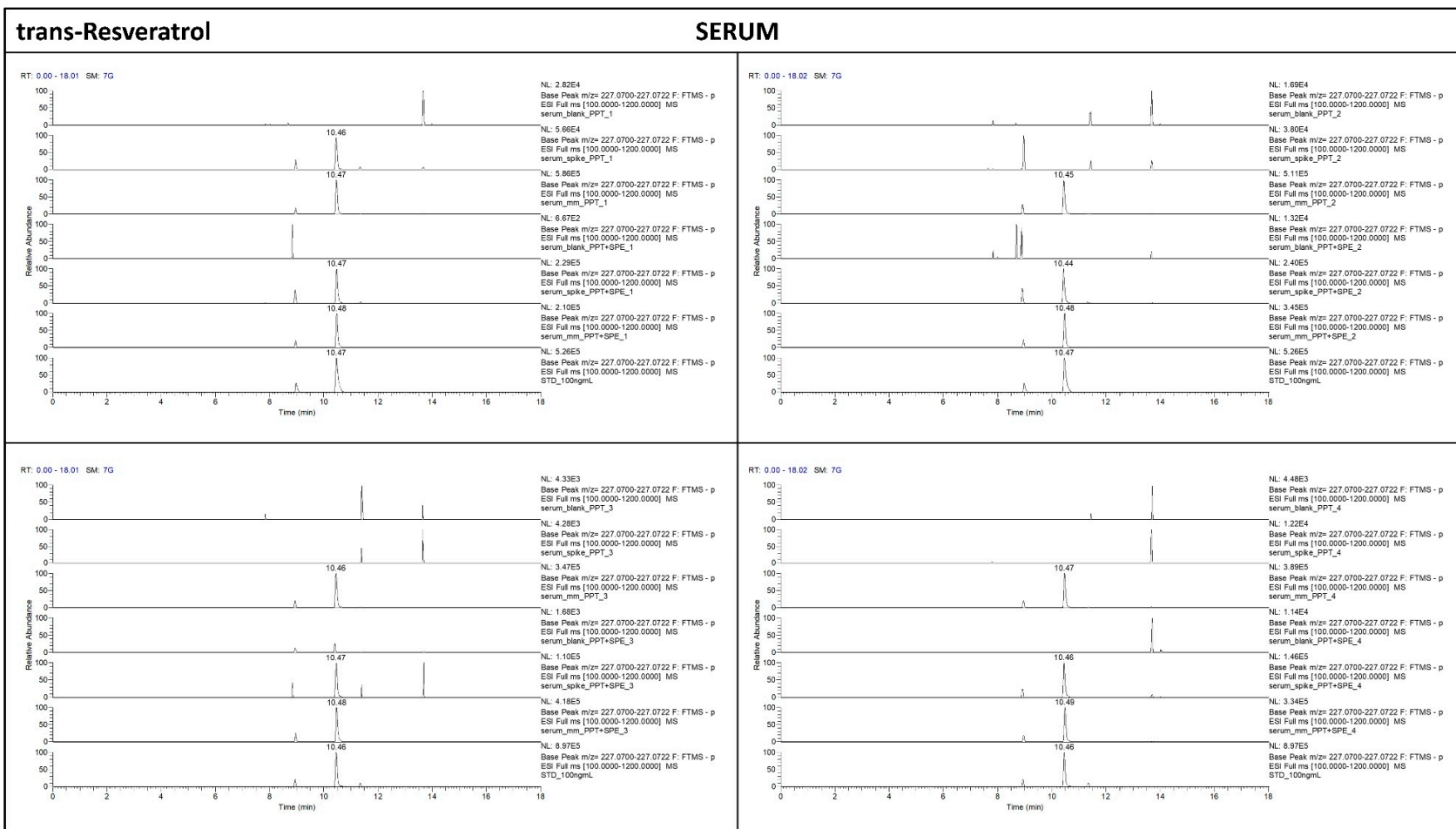


Figure S6b. Extracted ion chromatograms (XICs) of trans-resveratrol (10.47 min) for each pre-treatment method tested for serum samples.

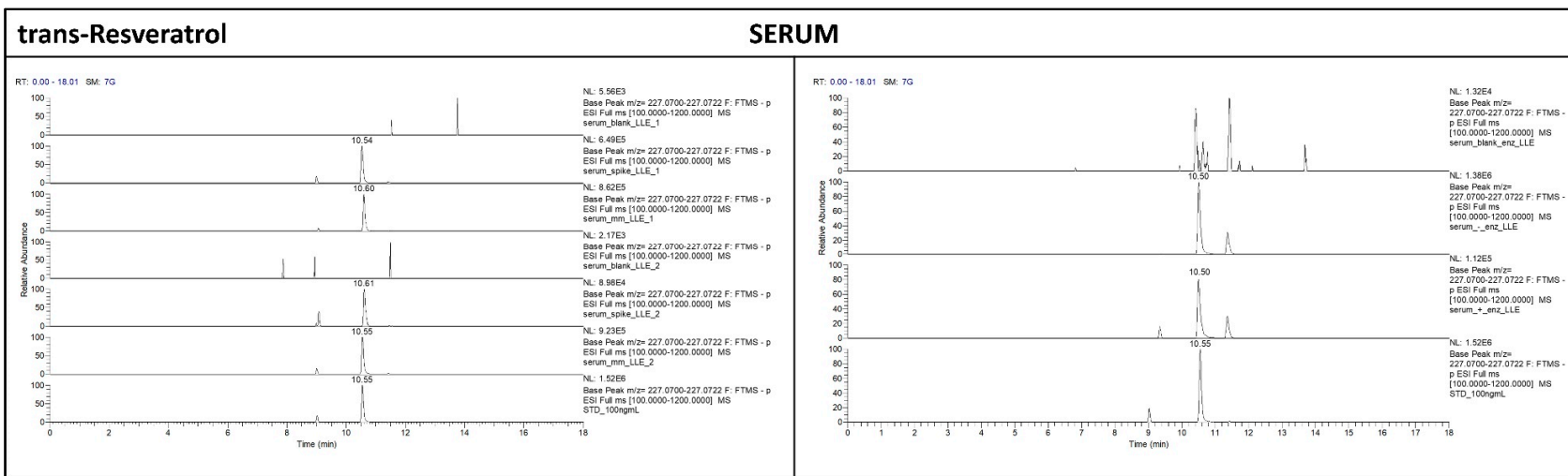


Figure S6b. (continued)

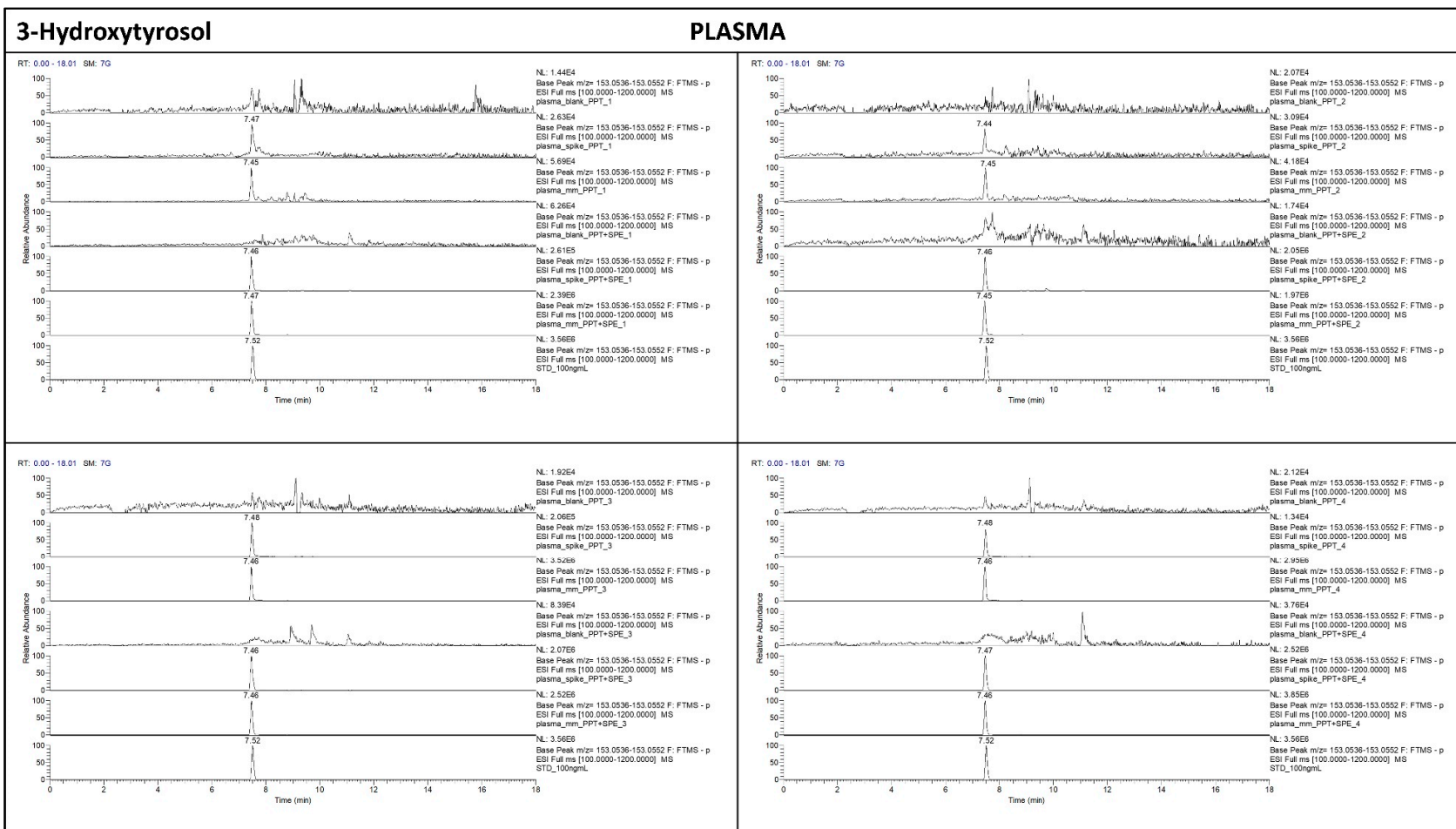


Figure S7a. Extracted ion chromatograms (XICs) of 3-hydroxytyrosol (7.50 min) for each pre-treatment method tested for plasma samples.

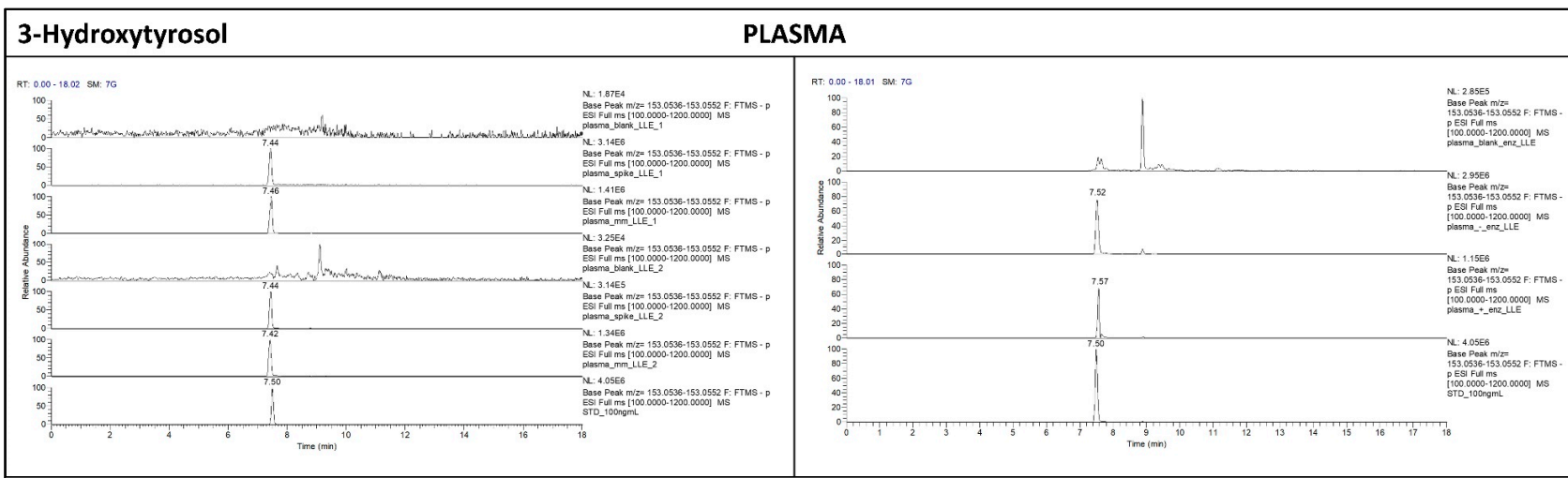


Figure S7a. (continued)

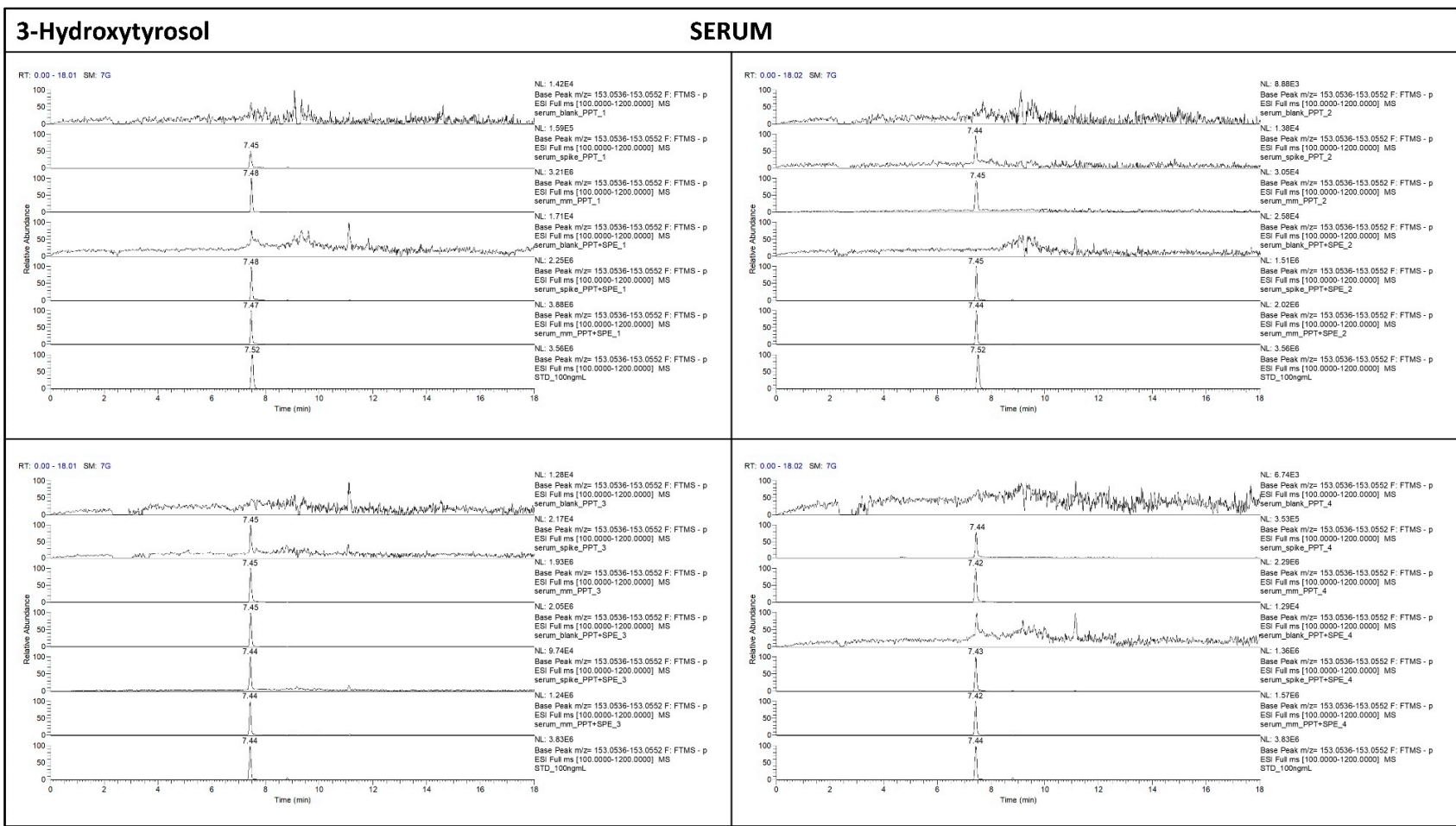


Figure S7b. Extracted ion chromatograms (XICs) of 3-hydroxytyrosol (7.50 min) for each pre-treatment method tested for serum samples.

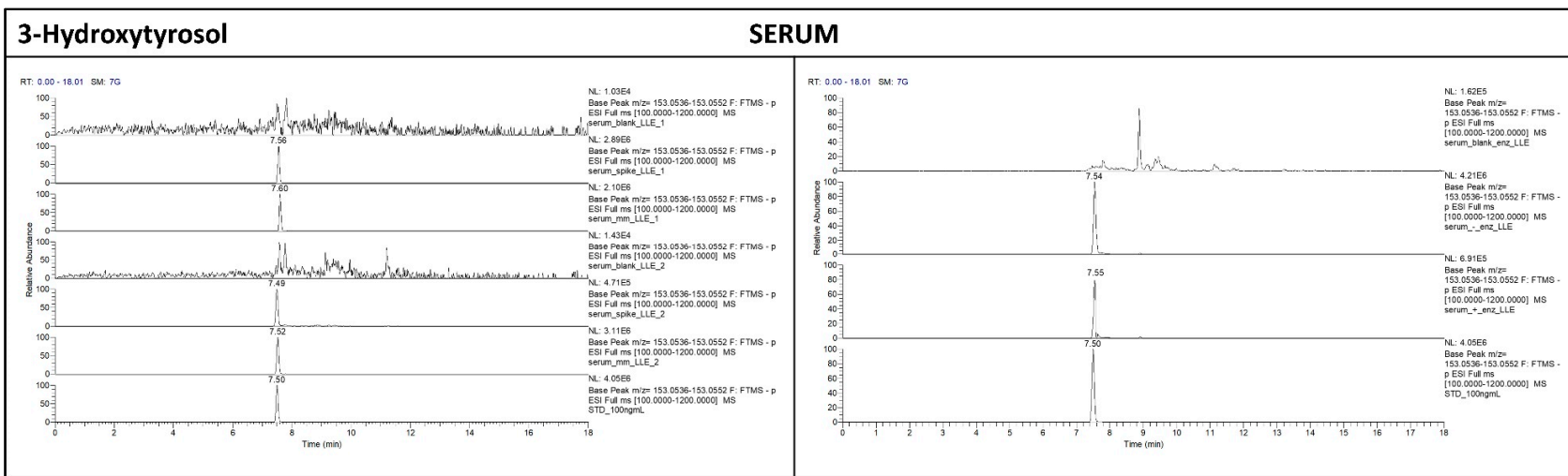


Figure S7b. (continued)

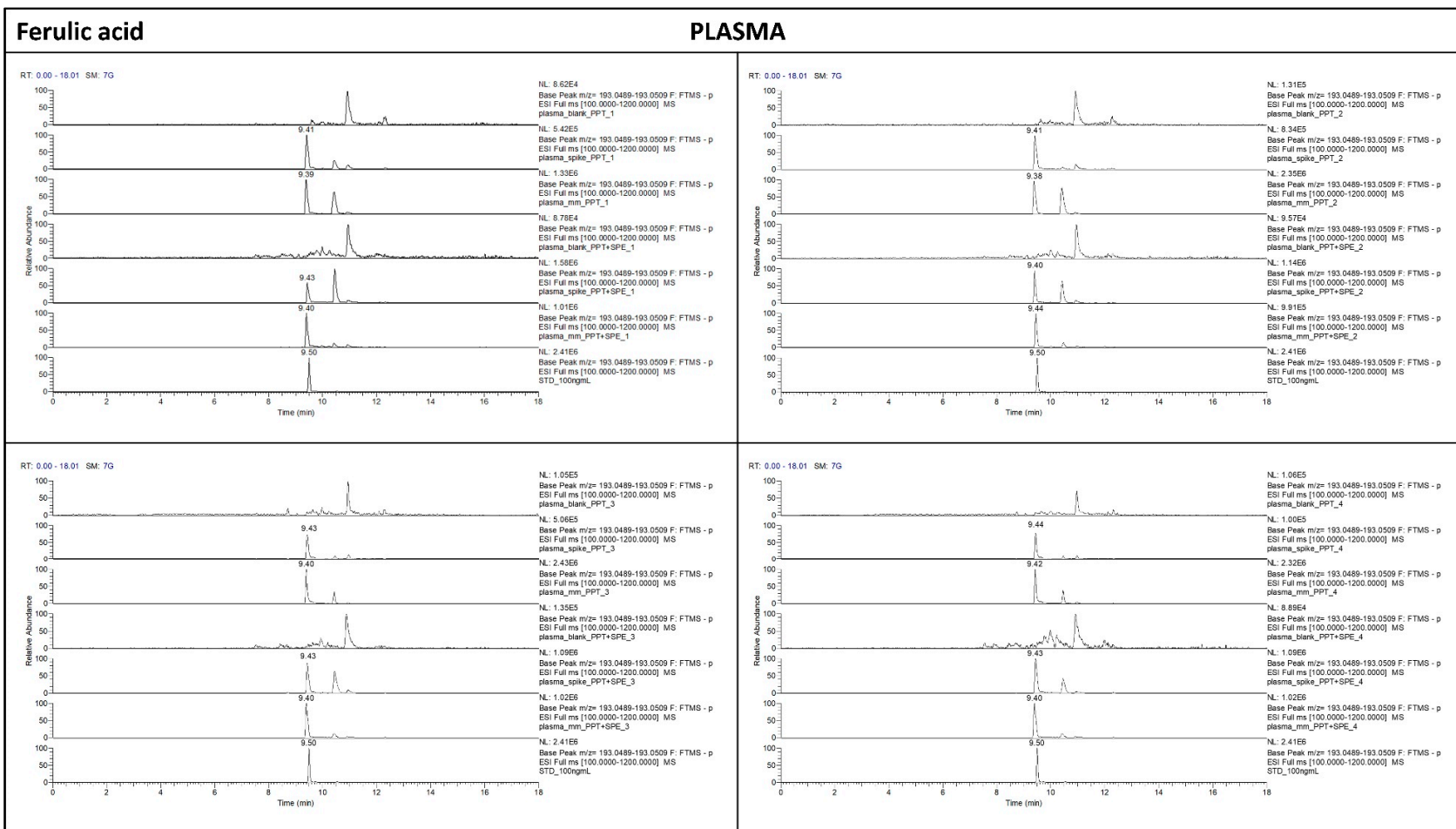


Figure S8a. Extracted ion chromatograms (XICs) of ferulic acid (9.50 min) for each pre-treatment method tested for plasma samples.

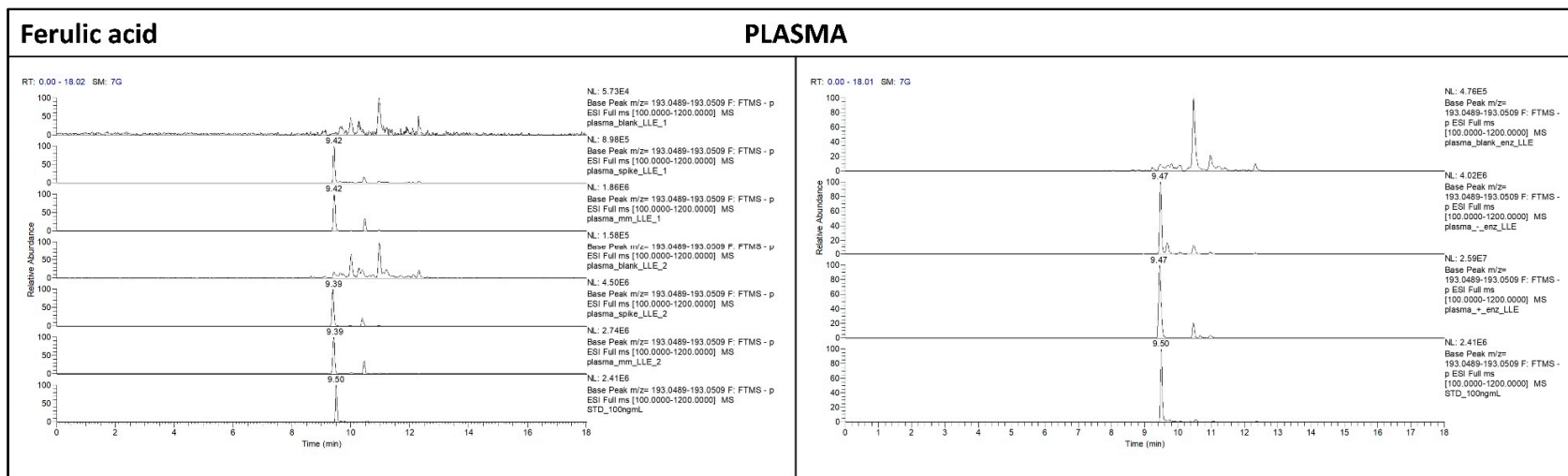


Figure S8a. (continued)

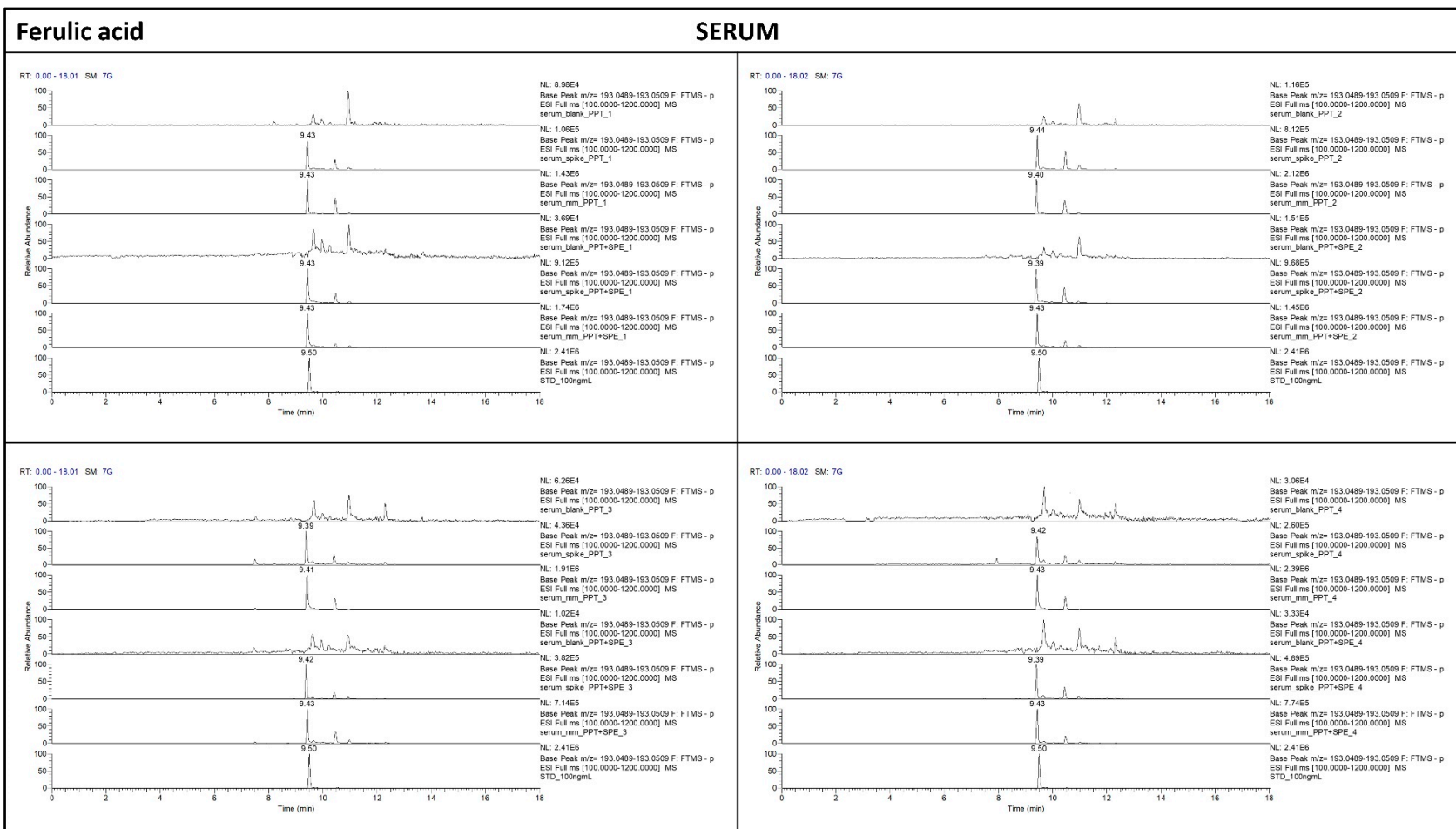


Figure S8b. Extracted ion chromatograms (XICs) of ferulic acid (9.50 min) for each pre-treatment method tested for serum samples.

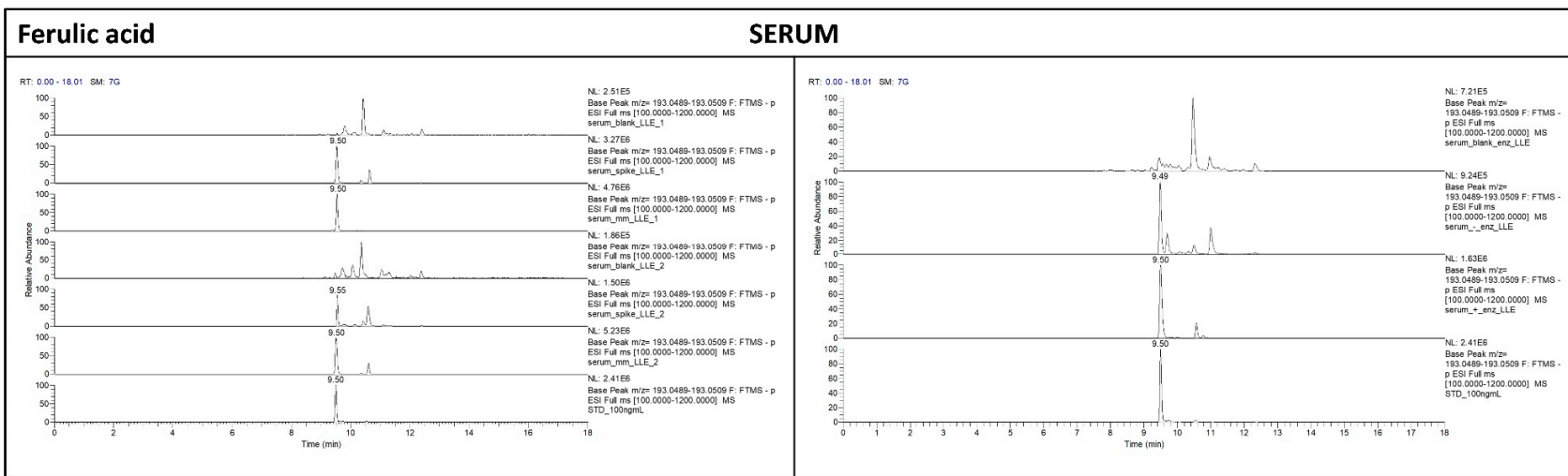


Figure S8b. (continued)

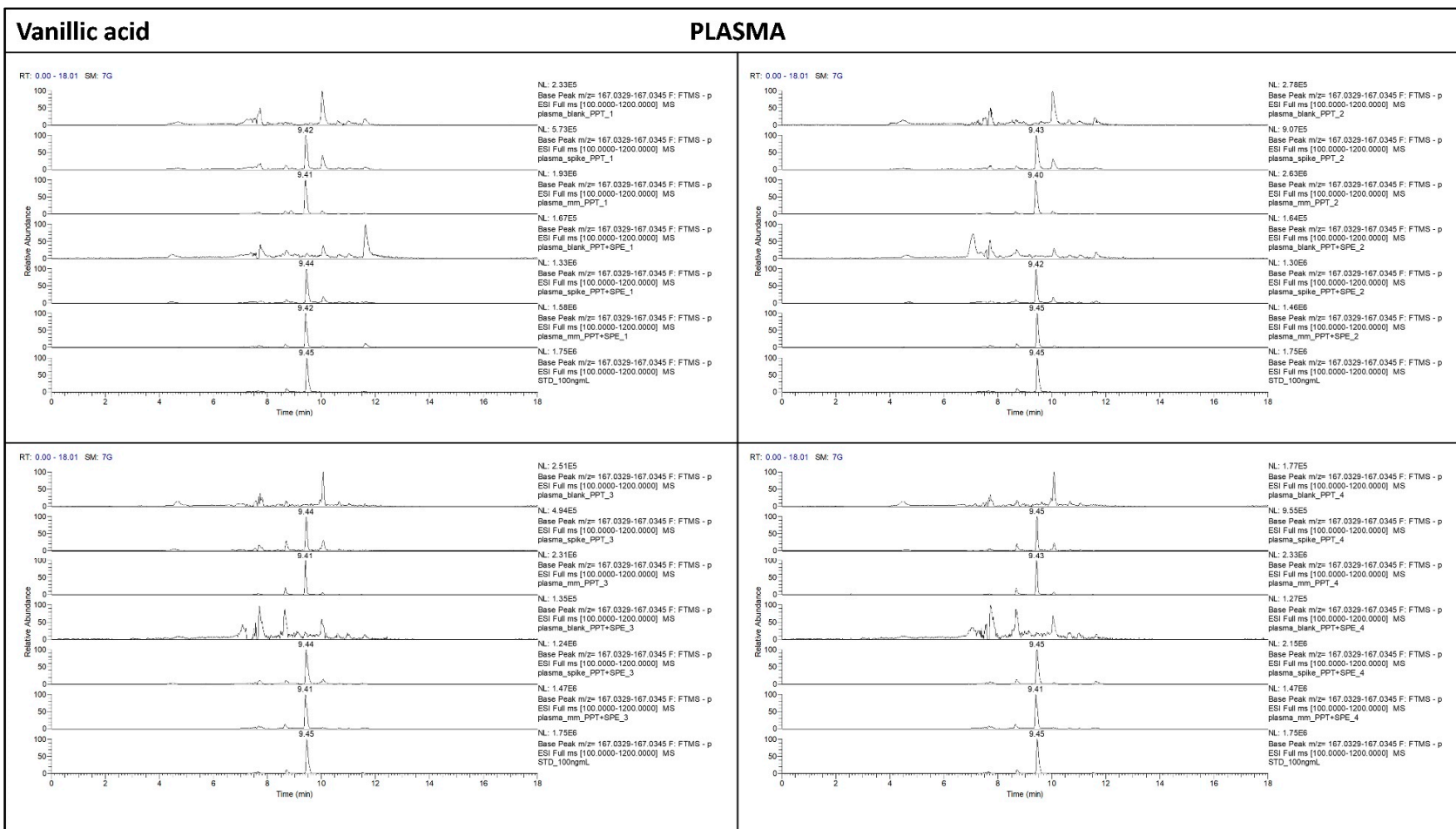


Figure S9a. Extracted ion chromatograms (XICs) of vanillic acid (9.50 min) for each pre-treatment method tested for plasma samples.

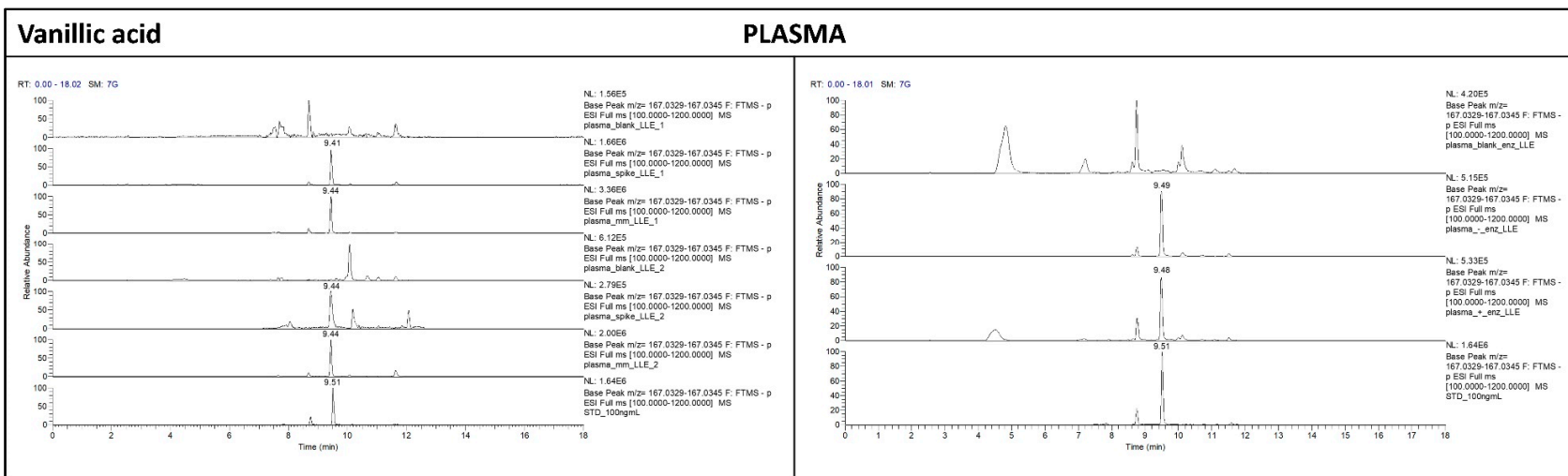


Figure S9a. (continued)

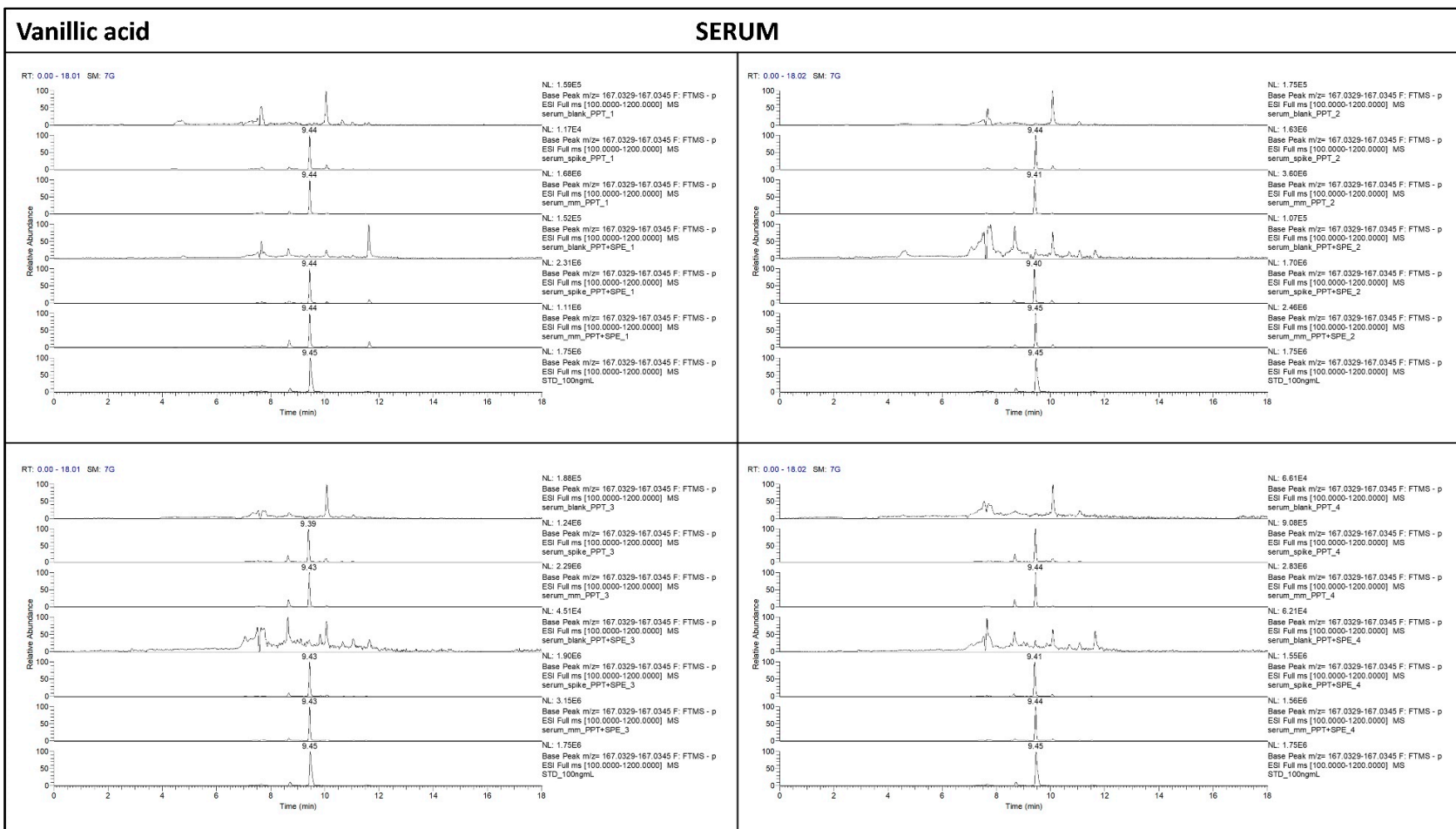


Figure S9b. Extracted ion chromatograms (XICs) of vanillic acid (9.50 min) for each pre-treatment method tested for serum samples.

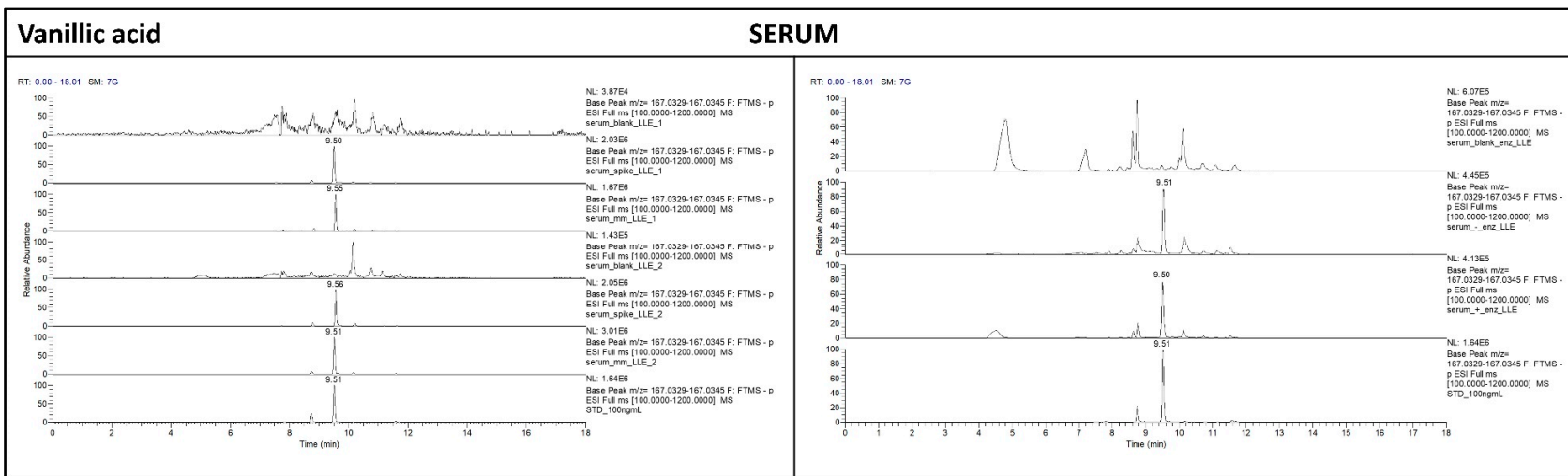


Figure S9b. (continued)

Table S2. Calibration curves obtained in serum matrix, linear ranges, limits of detection (LOD), limits of quantitation (LOQ) and matrix effects (%ME) of each analyte.

Analyte	Matrix-matched Calibration Curve (serum)	R ²	Range (ng/mL)	Matrix Effect (%ME)	LOD/LOQ (ng/mL, serum)
Isoflavones					
Daidzein	$y = 0.2595x + 2.6735$	0.9931	0.5-300	-14	0.2/ 0.7
Formononetin	$y = 0.0982x + 0.4012$	0.9959	0.5-300	-19	0.1/ 0.3
Genistein	$y = 0.1907x + 1.3104$	0.9941	0.5-300	1	1.1/ 3.2
Flavanones					
Hesperetin	$y = 0.0825x + 0.4625$	0.9952	0.5-300	-18	1.1/ 3.2
Naringenin	$y = 0.1212x + 0.7799$	0.9967	0.5-300	-18	0.9/ 2.7
Flavones					
Apigenin	$y = 0.1379x + 1.1436$	0.9932	0.5-300	-32	0.9/ 2.9
Chrysin	$y = 0.1606x + 0.3186$	0.9909	0.5-300	33	0.6/ 1.9
Luteolin	$y = 0.0937x + 0.4716$	0.9932	0.5-300	-48	0.2/ 0.6
Flavonols					
Isorhamnetin	$y = 0.0216x + 0.0998$	0.9948	0.5-300	-39	0.8/ 2.5
Kaempferol	$y = 0.0926x + 0.3899$	0.9966	0.5-300	-48	0.9/ 2.9
Quercetin	$y = 0.0367x + 0.0093$	0.9990	0.5-300	-37	0.5/ 1.6
Flavan-3-ols					
Catechin	$y = 0.0184x + 0.0651$	0.9964	0.5-300	-35	0.7/ 2.1
Epicatechin	$y = 0.0189x + 0.0597$	0.9986	0.5-300	-32	0.8/ 2.5
Epicatechin gallate	$y = 0.0032x + 0.0044$	0.9981	0.5-300	-30	3.2/ 9.7
Epigallocatechin	$y = 0.0147x - 0.0221$	0.9980	0.5-300	-24	0.7/ 2.2
Epigallocatechin gallate	$y = 0.0014x - 0.0084$	0.9977	0.5-300	-90	0.4/ 1.3
Flavonol glycosides					
Isoquercetin	$y = 0.0028x + 0.0086$	0.9979	0.5-300	-40	0.2/ 0.6
Rutin	$y = 0.0007x + 0.0038$	0.9981	5-300	-36	0.9/ 2.7
Stilbenes					
<i>trans</i> -Resveratrol	$y = 0.0226x + 0.1796$	0.9907	0.5-300	9	0.5/ 1.6
E-Viniferin	$y = 0.0018x + 0.0045$	0.9979	0.5-300	-18	0.8/ 2.4
Piceid	$y = 0.0033x + 0.0150$	0.9968	0.5-300	-20	1.1/ 3.2
Phenylethanoids					
3-Hydroxytyrosol	$y = 0.0494x + 0.3187$	0.9900	0.5-300	-6	0.8/ 2.4
Oleuropein	$y = 0.0018x + 0.0103$	0.9967	1-300	-53	1.1/ 3.3
Cinnamic acid and derivatives					
<i>trans</i> -Cinnamic acid	$y = 0.0008x + 0.0019$	0.9953	5-300	-47	0.8/ 2.3
Caffeic acid	$y = 0.0919x - 0.0970$	0.9975	0.5-300	-57	1.6/ 4.9

Chlorogenic acid	$y = 0.0070x + 0.0392$	0.9943	0.5-300	-29	0.7/ 2
<i>o</i> -Coumaric acid	$y = 0.0442x - 0.0671$	0.9982	0.5-300	26	0.9/ 2.9
<i>p</i> -Coumaric acid	$y = 0.1147x - 0.1141$	0.9980	0.5-300	6	1.1/ 3.2
Ferulic acid	$y = 0.0279x - 0.0277$	0.9979	0.5-300	-9	0.9/ 2.6
Neochlorogenic acid	$y = 0.0035x + 0.0036$	0.9979	0.5-300	-10	0.8/ 2.4
Sinapic acid	$y = 0.0258x + 0.0095$	0.9960	0.5-300	7	0.9/ 2.8
Benzoic acid derivatives					
Gallic acid	$y = 0.0357x - 0.1406$	0.9979	0.5-300	-67	0.5/ 1.6
Syringic acid	$y = 0.0050x - 0.0115$	0.9975	5-300	-43	1.1/ 3.2
Vanillic acid	$y = 0.0028x + 0.0003$	0.9980	1-300	-28	3.1/ 9.3

Table S3. Accuracy (error, RE%) and precision data (RSD%) of the analytes in spiked serum matrix (n = 6).

Analytes	Concentration (ng/mL)	Accuracy RE (%)	Intra-day RSD (%)	Inter-day RSD (%)	Recovery (% mean \pm SD)
Isoflavones					
Daidzein	1	4.2	7.0	10.7	75 \pm 6
	20	1.3	5.8	3.7	71 \pm 1
	60	8.8	6.3	7.2	78 \pm 8
	160	1.3	6.2	4.4	85 \pm 11
Formononetin	1	1.8	0.3	1.3	81 \pm 9
	20	4.4	6.0	4.0	81 \pm 4
	60	2.0	3.8	6.3	93 \pm 8
	160	-8.4	4.7	7.2	79 \pm 11
Genistein	1	-10.8	7.5	6.4	81 \pm 7
	20	-7.5	8.0	6.8	72 \pm 3
	60	-0.2	4.3	4.4	78 \pm 6
	160	0.1	6.6	4.3	89 \pm 6
Flavanones					
Hesperetin	10	-0.7	3.3	3.2	74 \pm 4
	40	2.0	5.1	4.7	70 \pm 6
	80	5.7	1.6	5.5	64 \pm 5
	160	-3.6	3.8	5.6	74 \pm 4
Naringenin	10	8.1	1.6	7.2	66 \pm 4
	40	1.1	3.7	4.7	66 \pm 7
	80	4.9	5.1	6.0	70 \pm 7
	160	-7.9	3.9	7.7	72 \pm 6
Flavones					
Apigenin	10	-4.0	7.1	4.9	66 \pm 5
	40	-7.4	5.4	6.3	74 \pm 6
	80	-8.3	6.4	4.5	83 \pm 5

	160	-1.3	5.5	4.0	74 ± 3
Chrysin	10	6.2	3.4	3.9	81 ± 7
	40	-7.5	7.1	13.5	77 ± 13
	80	-9.3	5.2	7.2	78 ± 8
	160	-7.5	3.0	8.2	75 ± 13
Luteolin	1	-5.7	12.8	10.0	66 ± 8
	40	-0.2	1.6	2.2	72 ± 5
	80	5.7	4.7	9.9	61 ± 4
	160	-3.8	3.7	6.0	71 ± 2
Flavonols					
Isorhamnetin	10	1.4	10.9	7.4	64 ± 4
	40	5.2	7.3	6.6	69 ± 5
	80	0.3	5.7	6.6	70 ± 3
	160	-3.7	3.2	4.0	73 ± 5
Kaempferol	10	5.5	2.6	5.4	61 ± 9
	40	-1.3	3.0	4.3	67 ± 2
	80	-2.3	4.4	4.9	61 ± 6
	160	-5.6	4.5	5.1	75 ± 7
Quercetin	10	5.1	6.1	8.2	69 ± 6
	40	-2.1	7.0	5.2	72 ± 6
	80	0.3	1.8	5.2	68 ± 5
	160	-0.9	4.4	3.4	70 ± 9
Flavan-3-ols					
Epicatechin	10	5.2	5.4	3.7	69 ± 4
	40	2.4	14.3	12.1	73 ± 9
	80	-0.8	5.0	6.6	64 ± 4
	100	-7.9	4.7	7.2	72 ± 6
Epigallocatechin	10	-11.2	1.5	4.0	53 ± 3
	40	1.6	5.1	4.7	82 ± 6
	80	-1.0	2.0	4.9	78 ± 4
	160	4.0	5.3	4.2	83 ± 20
Epigallocatechin gallate	10	1.3	8.0	9.0	76 ± 6
	40	-7.7	0.7	4.1	75 ± 5
	80	0.7	7.8	7.2	92 ± 6
	160	-7.3	0.5	7.5	90 ± 5
Catechin	10	-1.2	8.4	5.7	71 ± 2
	40	3.0	1.7	10.0	77 ± 11
	80	9.3	5.4	9.5	64 ± 9
	160	-3.7	6.5	7.9	78 ± 9
Epicatechin gallate	10	3.2	2.4	4.6	83 ± 1
	40	-11.0	11.9	8.0	88 ± 10
	80	-0.9	5.8	7.5	76 ± 5
	160	-10.9	5.8	6.9	92 ± 11
Flavonol glycosides					
Isoquercetin	1	-3.5	7.5	6.0	53 ± 2

	20	0.2	3.4	3.4	60 ± 4
	60	-2.2	4.9	4.8	71 ± 7
	160	2.3	2.6	2.8	80 ± 6
Rutin	10	3.8	3.1	4.9	56 ± 6
	40	-0.3	3.0	5.1	86 ± 10
	80	-0.8	1.1	6.3	72 ± 9
	160	-1.4	3.3	3.3	85 ± 8
Stilbenes					
<i>trans</i> -Resveratrol	10	4.0	4.6	9.4	59 ± 6
	40	2.0	9.6	9.7	56 ± 6
	80	1.2	0.9	7.0	56 ± 5
	160	-0.3	0.4	1.7	48 ± 6
E-Viniferin	10	-1.2	1.5	3.6	73 ± 3
	40	1.4	3.0	6.5	70 ± 6
	80	-1.4	5.3	4.1	81 ± 4
	160	-0.6	1.9	3.4	82 ± 7
Piceid	10	0.0	8.5	6.0	62 ± 6
	40	7.2	2.1	5.7	83 ± 13
	80	-1.0	4.3	4.4	73 ± 5
	160	0.3	5.0	3.7	73 ± 22
Phenylethanoids					
3-Hydroxytyrosol	10	4.4	8.3	11.2	68 ± 9
	40	6.6	3.0	6.8	77 ± 7
	80	-3.8	4.1	6.4	68 ± 7
	160	1.8	1.2	5.0	70 ± 7
Oleuropein	10	2.9	6.8	5.8	84 ± 4
	40	-0.3	8.3	5.9	81 ± 2
	80	0.6	2.0	2.3	79 ± 6
	160	1.1	1.1	2.3	81 ± 8
Cinnamic acid and derivatives					
Caffeic acid	10	3.6	1.8	10.2	86 ± 8
	40	-7.7	8.5	8.4	80 ± 10
	80	-2.7	6.1	7.5	67 ± 5
	160	-1.4	4.8	3.4	81 ± 5
<i>trans</i> -Cinnamic acid	10	3.4	5.6	6.5	42 ± 5
	40	2.0	1.6	7.2	40 ± 5
	80	2.3	1.5	4.0	38 ± 4
	160	-0.6	2.8	1.9	46 ± 12
Chlorogenic acid	10	-3.0	4.5	7.4	55 ± 6
	40	-0.8	1.5	3.8	50 ± 5
	80	-0.6	1.6	4.4	65 ± 9
	160	0.2	2.6	2.1	56 ± 4
<i>o</i> -Coumaric acid	10	-1.6	3.9	4.8	87 ± 8
	40	-3.8	6.0	6.7	82 ± 1
	80	-1.7	3.4	6.0	76 ± 9

	160	-3.4	7.8	6.3	77 ± 7
<i>p</i> -Coumaric acid	10	5.2	5.1	8.5	72 ± 11
	40	-4.4	5.5	6.9	83 ± 7
	80	-7.3	3.5	6.0	81 ± 6
	160	-1.4	8.5	5.7	87 ± 10
Ferulic acid	10	14.9	0.8	10.6	73 ± 12
	40	-0.1	8.8	7.4	67 ± 9
	80	-2.0	6.0	7.0	71 ± 9
	160	-7.0	3.3	7.4	84 ± 14
Neochlorogenic acid	10	3.7	0.6	4.6	28 ± 2
	40	-4.1	8.4	6.9	45 ± 5
	80	-8.0	4.9	5.8	29 ± 7
	160	1.6	2.6	1.9	41 ± 8
Sinapic acid	10	4.9	4.2	5.6	78 ± 6
	40	-2.3	7.4	9.1	83 ± 5
	80	0.2	1.0	1.6	71 ± 7
	160	-1.2	2.3	3.2	78 ± 8
Benzoic acid derivatives					
Gallic acid	1	3.0	4.2	5.3	36 ± 6
	40	-7.1	7.7	5.4	32 ± 3
	80	-6.7	2.1	2.1	33 ± 1
	160	5.3	1.4	2.1	42 ± 9
Syringic acid	10	3.0	3.4	6.3	46 ± 49
	40	-0.1	4.6	4.1	12 ± 3
	80	0.9	0.2	1.3	27 ± 4
	160	0.5	1.4	1.9	27 ± 3
Vanillic acid	10	4.4	3.4	6.8	66 ± 9
	40	-3.8	6.9	5.6	59 ± 5
	80	-1.1	3.2	5.3	84 ± 8
	160	-0.2	3.1	3.3	80 ± 8

Table S4. Stability of analytes in serum samples under various storage conditions (n = 3).

Analyte	Concentration (ng/mL)	Auto sampler temperature (4°C) after 24 h	After one freeze- thaw cycle	Long-term stability (2 months, stored at -40°C)
Isoflavones				
Daidzein	10	9.6 ± 0.3 (3.6)	10.3 ± 1 (9.4)	10.1 ± 1 (10)
	80	88.1 ± 6.6 (7.4)	82.7 ± 4.3 (5.1)	84.1 ± 4.7 (5.6)
Formononetin	10	10 ± 0.4 (4.1)	10.1 ± 0.2 (2.1)	10.2 ± 0.1 (1.4)
	80	82.3 ± 10.7 (13)	83.3 ± 5.6 (6.7)	79.2 ± 5.4 (6.8)
Genistein	10	10.4 ± 0.8 (7.6)	10 ± 1 (9.5)	10.1 ± 1.1 (11.1)
	80	81.7 ± 2.3 (2.8)	78.5 ± 3 (3.9)	78.1 ± 4.1 (5.2)
Flavanones				
Hesperetin	10	10.2 ± 0.5 (4.5)	10.2 ± 0.3 (3.2)	10.3 ± 0.1 (0.7)
	80	86.8 ± 5.7 (6.6)	83.1 ± 1.4 (1.7)	85.2 ± 7 (8.2)
Naringenin	10	10.1 ± 0.8 (7.8)	9.8 ± 0.8 (8.3)	9.9 ± 0.7 (7)
	80	81.5 ± 7.3 (9)	79.3 ± 5.2 (6.5)	81.3 ± 2.2 (2.7)
Flavones				
Apigenin	10	9.4 ± 0.1 (0.9)	9.6 ± 0.7 (6.9)	9.9 ± 0.5 (4.6)
	80	73.1 ± 4.3 (5.9)	75.6 ± 1.6 (2.1)	74.4 ± 2 (2.7)
Chrysin	10	10.3 ± 0.4 (3.4)	10.4 ± 0.6 (5.3)	10.3 ± 0.3 (3)
	80	79.7 ± 4.1 (5.1)	74.3 ± 3.5 (4.7)	75.2 ± 8 (10.7)
Luteolin	10	10.4 ± 0.5 (4.5)	10.4 ± 0.1 (0.7)	10.6 ± 0.3 (2.7)
	80	82.2 ± 3.6 (4.4)	80.4 ± 6.7 (8.4)	73.5 ± 6.8 (9.3)
Flavonols				
Isorhamnetin	10	10.4 ± 0.5 (4.3)	9.9 ± 0.8 (8.1)	10.4 ± 1.2 (11.1)
	80	81.6 ± 7 (8.6)	80.7 ± 5.2 (6.4)	75.2 ± 1.4 (1.9)
Kaempferol	10	10.2 ± 0.2 (2.4)	10 ± 0.8 (8)	10 ± 0.7 (6.7)
	80	79.6 ± 4.9 (6.2)	80.9 ± 2.7 (3.3)	76.9 ± 4.2 (5.5)
Quercetin	10	9.7 ± 1 (10.7)	9.5 ± 0.8 (7.9)	10.3 ± 0.7 (6.4)
	80	80.1 ± 2.6 (3.2)	76.4 ± 5.1 (6.7)	77.2 ± 5.7 (7.3)
Flavan-3-ols				
Catechin	10	10.1 ± 0.6 (6.1)	9.4 ± 0.2 (2.4)	9.9 ± 0.7 (7.3)
	80	81.5 ± 10.3 (12.6)	77.2 ± 7.3 (9.4)	80.9 ± 6.6 (8.2)
Epicatechin	10	10.5 ± 0.2 (2.2)	10.6 ± 0.5 (4.9)	10.8 ± 0.6 (5.1)
	80	79.1 ± 7.7 (9.8)	74.8 ± 4 (5.3)	78.8 ± 4.5 (5.8)
Epicatechin gallate	10	10.5 ± 0.6 (5.3)	10.9 ± 0.4 (3.5)	10.4 ± 0.6 (6)
	80	75.1 ± 7.5 (10)	77.4 ± 4.1 (5.3)	74.3 ± 7.5 (10.1)
Epigallocatechin	10	8.8 ± 0.5 (5.5)	8.8 ± 0.5 (5.4)	9.2 ± 0.1 (1.5)
	80	80.2 ± 3.4 (4.3)	79.3 ± 1.5 (1.9)	78.4 ± 5.8 (7.4)
Epigallocatechin gallate	10	11 ± 0.9 (8.6)	10.8 ± 1.2 (11.1)	10.6 ± 1 (9.3)
	80	78.2 ± 2.1 (2.7)	81.8 ± 5.5 (6.7)	74.8 ± 3.6 (4.8)
Flavonol glycosides				
Isoquercetin	10	10.9 ± 0.1 (1.2)	10.5 ± 0.4 (3.4)	10.8 ± 0.6 (5.2)
	80	82.3 ± 7.5 (9.1)	81.3 ± 6 (7.4)	76.5 ± 2.7 (3.6)

Rutin	10	10.1 ± 0.1 (1.4)	9.8 ± 0.5 (5.6)	10.1 ± 0.8 (7.5)
	80	84.6 ± 6.9 (8.1)	85.1 ± 6.8 (7.9)	81 ± 2.5 (3.1)
Stilbenes				
<i>trans</i> -Resveratrol	10	9.2 ± 0.6 (7.1)	9.4 ± 1.2 (12.8)	9.5 ± 0.9 (9)
	80	80.5 ± 4 (5)	80.1 ± 3.9 (4.9)	72.8 ± 7.1 (9.8)
E-Viniferin	10	10.3 ± 0.5 (4.5)	10.3 ± 0.5 (4.8)	10.2 ± 0.1 (1.3)
	80	82.7 ± 1.8 (2.2)	78.5 ± 2.2 (2.8)	79.7 ± 3.5 (4.4)
Piceid	10	9.8 ± 0.7 (7.2)	10.3 ± 0.3 (2.5)	10.3 ± 0.5 (5.2)
	80	82.2 ± 3.7 (4.5)	81.5 ± 5.5 (6.7)	81.9 ± 1.2 (1.4)
Phenylethanoids				
3-Hydroxytyrosol	10	10.1 ± 1.4 (13.4)	9 ± 0.6 (6.7)	9.7 ± 1.5 (15.6)
	80	83.3 ± 5.1 (6.2)	80.2 ± 2.6 (3.2)	79.9 ± 5.7 (7.1)
Oleuropein	10	10.6 ± 0.8 (7.3)	10.5 ± 0.4 (3.8)	10.9 ± 0.5 (4.3)
	80	81 ± 2.3 (2.9)	81.7 ± 2.2 (2.7)	80.4 ± 1.6 (2)
Cinnamic acid and derivatives				
<i>trans</i> -Cinnamic acid	10	9.6 ± 0.4 (4.4)	9.5 ± 0.4 (3.8)	10 ± 0.9 (9)
	80	83.3 ± 0 (0)	80.7 ± 0.3 (0.4)	79.7 ± 4.5 (5.7)
Caffeic acid	10	9.1 ± 1.2 (12.9)	9.7 ± 1 (10.7)	9.9 ± 0.7 (7.1)
	80	75 ± 8.9 (11.9)	74.8 ± 0.6 (0.8)	72.1 ± 5.6 (7.8)
Chlorogenic acid	10	10.2 ± 0.8 (7.5)	10.6 ± 0.6 (6.1)	10.6 ± 0.9 (8.9)
	80	77.4 ± 3.6 (4.7)	75.7 ± 4 (5.3)	78.1 ± 4.1 (5.2)
<i>o</i> -Coumaric acid	10	9.5 ± 0.5 (4.9)	10 ± 0.2 (2.5)	9.8 ± 0.7 (7.2)
	80	78.7 ± 5.4 (6.9)	76.8 ± 5.5 (7.2)	73.3 ± 3 (4.1)
<i>p</i> -Coumaric acid	10	9.6 ± 0.6 (6.5)	9.5 ± 0.6 (6.2)	9.7 ± 1.2 (12.6)
	80	76.3 ± 5.5 (7.2)	75 ± 5.9 (7.9)	70.6 ± 1 (1.4)
Ferulic acid	10	10.1 ± 1.1 (10.8)	10.1 ± 1.2 (12.2)	10.2 ± 1.2 (11.8)
	80	77.8 ± 7.6 (9.8)	77.7 ± 4 (5.2)	72 ± 2.6 (3.6)
Neochlorogenic acid	10	10.4 ± 0.1 (1.4)	10.7 ± 0.4 (3.7)	10.8 ± 0.7 (6.1)
	80	78 ± 2.2 (2.8)	73.1 ± 3.4 (4.7)	73.3 ± 6.2 (8.5)
Sinapic acid	10	9.8 ± 0.3 (3.1)	9.9 ± 0.7 (7.4)	10.3 ± 0.7 (6.7)
	80	79.4 ± 1 (1.3)	79.2 ± 1.6 (2.1)	78.4 ± 0.9 (1.1)
Benzoic acid derivatives				
Gallic acid	10	9.3 ± 1.1 (11.6)	9.6 ± 1.1 (11)	10.4 ± 0.4 (4.2)
	80	74.6 ± 1.9 (2.6)	74.6 ± 1.7 (2.3)	74.9 ± 1.7 (2.3)
Syringic acid	10	9.4 ± 0.5 (4.8)	9.8 ± 0.7 (6.9)	10.2 ± 0.5 (4.8)
	80	79.9 ± 0.8 (1)	79.4 ± 1.3 (1.7)	79.8 ± 1.3 (1.6)
Vanillic acid	10	10 ± 0.7 (7)	9.5 ± 0.5 (5.8)	10.1 ± 0.8 (8.3)
	80	76.3 ± 4.8 (6.3)	78.6 ± 4.2 (5.3)	75.2 ± 4.5 (5.9)

Table S5

Polar phenol content of Corinthian currant and rat food (mg/100g).

Polar Phenol	Corinthian Currant	Rat Food
Isoflavones		
Daidzein	n.d.	111.6 ± 21.6
Formononetin	n.d.	6.1 ± 1.4
Genistein	0.2 ± 0.1	286.3 ± 46.7
Flavanones		
Hesperetin	0.6 ± 0	1.2 ± 0.3
Naringenin	2.2 ± 0.3	2.4 ± 0.8
Flavones		
Apigenin	n.d.	30.9 ± 3.3
Luteolin	1.14 ± 0.16	27.4 ± 8
Chrysin	0.15 ± 0.04	n.d.
Flavonols		
Isorhamnetin	27.3 ± 0.8	0.9 ± 0.2
Kaempferol	35 ± 4.8	12.1 ± 2
Quercetin	172.79 ± 19.38	4.1 ± 1.2
Flavonol glycosides		
Isoquercetin	479.61 ± 70.81	3.1 ± 1.3
Rutin	118.83 ± 13.91	11 ± 2.7
Stilbenes		
trans-Resveratrol	3.3 ± 0.4	n.d.
E-Viniferin	3.5 ± 0.2	n.d.
Piceid	27.9 ± 3.8	8.9 ± 1.3
Cinnamic acid derivatives		
Caffeic acid	52.1 ± 1.5	19.6 ± 2.4
Ferulic acid	9.9 ± 1.3	58.6 ± 14.8
p-Coumaric acid	10.9 ± 1.1	76.4 ± 12.5
Benzoic acid derivatives		
Gallic acid	193.1 ± 22.1	4.4 ± 1.5
Syringic acid	122.2 ± 18.7	33.4 ± 5
Vanillic acid	286.2 ± 45.1	39.5 ± 6.4