Electronic Supplementary Material (ESI) for Food & Function.

Supplementary Data

Table 2S. Instrumental quality parameters for the determination of phenolic compounds in plasma, urine and faeces samples.

a) Plasma samples

Phenolic compound	%R	%ME	Linearity (μM)	Calibration curve	%RSD (n=3)		% Accuracy (*n*=3)	LOQ (nM)	LOD (nM)
					0.01 μM	0.1 μM	0.1 μM		
Catechol	89	6.2	0.1-15	y = 312.28x + 81.704	6.6 [a]	5.4 [b]	101 [b]	100	30
p-Hydroxybenzoic acid	92	7.4	0.003-7	y = 19452x + 904.83	5.6	4.2	98	3	1
Vanillic acid	85	7.1	0.008-8	y = 7436.9x + 1559.8	6.9	6.0	96	8	3
p-Coumaric acid	82	6.5	0.009-9	y = 15275x + 179.85	6.5	5.4	101	9	3
Ferulic acid	86	8.1	0.003-6	y = 24400x + 811.5	6.0	5.1	98	3	1
Caffeic acid	80	9,2	0.007-10	y = 19788x – 1218.8	6.6	5.2	103	7	2
Phenylacetic acid	79	10.5	0.004-20	y = 9930.3x + 6537.5	6.3	5.2	102	4	1
4-Hydroxyphenylacetic acid	89	9.3	0.008-16	y = 4124.1x + 1610.9	5.5	6.4	99	8	3
3,4-Dihydroxyphenylacetic acid	82	8,9	0.5-15	y = 184x – 65.852	6.8 [c]	6.8 [d]	6.8 [d]	500	220
3-(4-Hydroxyphenyl)propionic acid	81	9.6	0.002-13	y = 2889.4x + 855.97	7.0	6.1	103	2	0.7
3-(2,4-Dihydroxyphenyl)propionic acid	79	10,8	0.01-10	y = 11106x + 254.11	6.7 [a]	6.2 [b]	104 [b]	10	3

[a] 0.2 μM, [b] 2 μM, [c] 1.0 μM [d] 10 μM

b) Urine samples

Phenolic compound	%R	%ME	Linearity (μM)	Calibration curve	%RSD (n=3)		% Accuracy (*n*=3)	LOQ (nM)	LOD (nM)
					0.01 μM	0.1 μM	0.1 μM		
Catechol	86	8.0	2-520	y = 30.034x + 405.19	6.2 [a]	5.8 [b]	103 [b]	2000	680
p-Hydroxybenzoic acid	89	6.2	0.01-250	y = 1350.1x + 4176.8	5.0	4.6	102	10	3
Protocatechuic acid	85	8.6	0.06-125	y = 320.32x + 102.12	5.9	5.2	97	60	20
Phenylacetic acid	82	9.2	0.06-700	y = 741.01x + 11279	6.0	5.4	98	60	20
p-Hydroxyphenylacetic acid	84	10.6	0.1-500	y = 63.66x + 5652.6	7.7 [c]	6.4 [d]	105 [d]	100	35
Dihydroxyphenylacetic acid	86	6.8	0.5-110	y = 50.898x – 161.89	6.4	5.8	105	500	170
Hydroxyphenylpropionic acid	80	6.0	0.19-475	y = 155.92x + 2152.8	6.6 [e]	5.9 [f]	105 [f]	300	100
Vanillic acid	79	11.6	0.3-120	y = 376.08x + 1099.7	7.2 [e]	6.6 [f]	98 [f]	300	100
Caffeic acid	82	8.9	0.05-260	y = 2490.6x – 1341.6	6.8	5.9	101	50	20
p-Coumaric acid	86	7.0	0.03-320	y = 1215.1x + 5836.6	6.2	5.6	104	30	10
Ferulic acid	88	9.4	0.02-220	y = 1191x + 2301.7	5.5	5.2	101	20	7

[a] 10 μM, [b] 100 μM, [c] 0.2 μM, [d] 2 μM, [e] 0.5 μM, [f] 50 μM,

c) Faeces samples

Phenolic compound	%R	%ME	Linearity (µmol/g dry)	Calibration curve	%RSD (n=3)		% Accuracy (*n*=3)	LOQ	LOD
					0.01 µM	0.1 µM	0.1 µM	(nmol/g dry)	(nmol/g dry)
p-Hydroxybenzoic acid	86	7.6	0.05-10	y = 1005.8x + 173.48	7.1	6.5	97	50	15
Protocatechuic acid	83	8.2	0.07-14	y = 1479.6x – 376.17	5.4	4.8	104	70	25
Dihydroxyphenylacetic acid	80	8.5	0.10-12	y = 128.04x – 14.539	6.8 [a)]	5.4 [b)]	103 [b)]	100	30
Hydroxyphenylpropionic acid	78	9.9	0.05-20	y = 1853.6x + 565.85	6.2	5.7	96	50	30
Vanillic acid	75	7.4	0.01-13	y = 4070.8x + 950.26	6.8	6.4	95	10	3
Caffeic acid	85	8.4	0.001-12	y = 12176x + 15.551	7.2	6.5	104	1	0.3
p-Coumaric acid	79	10.9	0.01-15	y = 9041x – 68.104	6.2	5.0	99	10	3
Ferulic acid	80	6.8	0.005-10	y = 15757x + 179.25	5.0	4.8	104	5	2

[a)] 0.2 µM, [b)] 2 µM,