

SUPPORTING INFORMATION – FIGURES AND TABLES

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Figure SI-39-45 – Plasma pharmacokinetics.*

* Graphs in figures SI 1-35 and SI-37-38 depict urinary excretion of polyphenol metabolites, while graphs in figures SI-39-45 show plasma concentrations of polyphenol metabolites. For clarity, statistical comparisons are shown in tables below each figure. Lower case letters indicate differences between doses and the same time point (i.e., down a column), while upper case letters indicate differences between time points and within dose (i.e., across a row). Two-way ANOVA with Tukey's HSD ($p < 0.05$) used for all comparisons. nd = not detected; trace = metabolite detected but below LOQ. Data shown as mean \pm SEM in graphs; mean \pm SD in tables.

Supporting Information for *Colonic metabolism of blueberry phenolics*

Table SI-1 – Mass spectrometry parameters for compounds quantified via MS².

Compound	MRM mode	RT (min)	MW	Precursor ion (m/z)	MS ² fragments (m/z) ^a	CV	CE (eV)	Quantitation Standard
Anthocyanins								
Cyanidin								
Arabinoside	+	1.77	419.1	419	287	46	20	
Galactoside	+	1.41	449.1	449	137, 287	46	54, 20	Cyanidin-3-glucoside
Glucoside	+	1.62	449.1	449	137, 287	46	54, 20	
Glucuronide	+	1.8	463.1	464	287	35	20	
Delphinidin								
Arabinoside	+	1.41	435.4	435	303	100	18	
Galactoside	+	1.12	465.4	465	69, 303	100	74, 18	Delphinidin-3-glucoside
Glucoside	+	1.24	465.4	465	69, 303	100	74, 18	
Glucuronide	+	3.2	479.4	479	303	100	18	
Sulfate	+	4.11	383.4	383	153, 303	100	54, 18	
Malvidin								
Arabinoside	+	2.79	463.4	463	331	100	34	
Galactoside	+	2.4	493.4	493	315, 331	100	50, 34	Malvidin-3-glucoside
Glucoside	+	2.63	493.4	493	315, 331	100	50, 34	
Peonidin								
Arabinoside	+	2.44	433.4	433	301	35	20	
Galactoside	+	2.11	463.4	464	301	35	20	
Glucoside	+	2.4	463.4	464	301	35	20	Peonidin-3-glucoside
Glucuronide	+	4.28	477.4	477	301	35	20	
Sulfate	+	4.24	381.4	381	301	35	20	
Petunidin								
Arabinoside	+	2.13	449.4	449	317	40	22	
Galactoside	+	1.69	479.4	479	317	40	22	
Glucoside	+	1.91	479.4	479	317	40	22	Petunidin-3-glucoside
Glucuronide	+	3.77	493.4	493	317	40	22	
Sulfate	+	4.26	397.4	397	317	40	22	

Supporting Information for *Colonic metabolism of blueberry phenolics*

Phenolic Acids

Benzaldehydes (BALD)

4-OH-BALD	-	1.70	126	121	65, 92	44	22, 24	4-OH-BALD
3-OH-4-OMe-BALD	-	2.30	150.2	151	92, 136	24	22, 12	3-OH-4-OMe-BALD

Benzoic acids (BzA)

Protocatechuic acid	-	0.86	154.1	153	81, 91	28	18, 24	Protocatechuic acid
Gallic acid	-	0.61	170.1	169	79, 97	32	22, 20	Gallic acid
3-OH-4-OMe-BzA	-	1.64	168.1	167	108, 152	28	20, 12	3-OH-4-OMe-BzA
Syringic acid	-	1.91	198.2	197	123, 182	36	24, 14	Syringic acid
BzA sulfate	-	3.93	202.1	201	121	28	12	4-OH-BALD
BzA glucuronide	-	3.81	298.2	297	121	30	22	4-OH-BALD

Phenyl Acetic Acids (PAA)

4-OH-PAA	-	1.52	152.2	151	107, 133	28	10	4-OH-PAA
3-OMe-PAA	-	3.62	166.2	165	106, 121	28	24, 6	3-OMe-PAA
3-OH-4-OMe-PAA	-	2.35	182.2	181	79, 122	14	16, 12	3-OH-4-OMe-PAA

Phenyl Propionic Acids (PPA)

3-OH-PPA	-	2.82	166.2	165	121, 147	24	16, 12	3-OH-PPA
3-OH-4-OMe-PPA	-	3.24	196.2	195	135, 136	32	26, 12	3-OH-4-OMe-PPA

trans-Cinnamic Acids

<i>p</i> -Coumaric acid	-	2.41	164	163	93, 120	28	28, 32	<i>p</i> -Coumaric acid
Caffeic acid	-	1.62	180.2	179	107, 117	32	22, 24	Caffeic acid
Caffeic acid sulfate	-	4.35	260.2	259	179	32	12	Caffeic acid
Caffeic acid glucuronide	-	1.46	356.2	355	179	30	18	Caffeic acid glucuronide
Ferulic acid	-	3.12	194.2	193	134, 178	30	18, 12	Ferulic acid
Ferulic acid sulfate	-	1.82	274.2	273	134, 193	30	18, 12	Ferulic acid
Ferulic acid glucuronide	-	3.51	370.2	369	193	30	22	Ferulic acid
Chlorogenic acid	-	1.49	354.3	353	85, 191	26	40, 18	Chlorogenic acid
Feruloylquinic acid	-	2.64	368.3	367	134, 191	30	40, 20	Ferulic acid
Ethyl gallate	-	2.62	198.2	197	124, 125	30	30	Ethyl gallate
Taxifolin	-	3.19	304.3	303	125, 177	34	22, 14	Taxifolin

Catechins

Catechin	-	1.40	290.3	289	109, 123	33	24, 26	Catechin
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Supporting Information for *Colonic metabolism of blueberry phenolics*

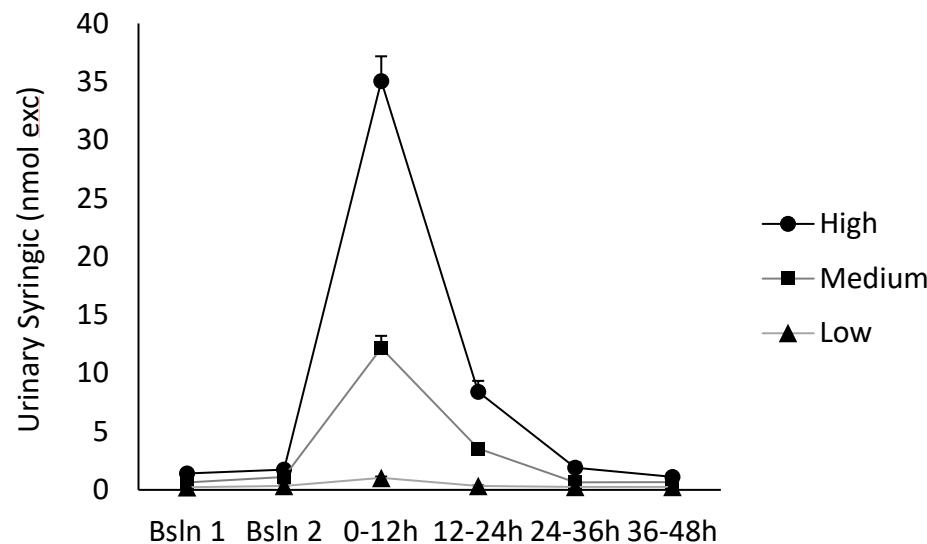
Epicatechin	-	2.11	290.3	289	<i>109, 123</i>	33	24, 26	Epicatechin
(Epi)gallocatechin peak 1	-	0.80	306.3	305	<i>125, 179</i>	40	20, 14	Catechin
(Epi)gallocatechin peak 2	-	1.00	306.3	305	<i>125, 179</i>	40	20, 14	Catechin
Flavonols								
Quercetin	-	4.19	302.2	301	<i>151, 179</i>	38	20, 18	Quercetin
Kaempferol	-	4.52	286.2	285	<i>146, 151</i>	58	30, 18	Quercetin
Myricetin	-	3.79	318.2	317	<i>151, 179</i>	46	26, 20	Myricetin
Kaempferol-3-glycs ^b	-	1.40	448.4	447	<i>284</i>	42	18	Quercetin-3-glucoside
Quercetin-3-glycs	-	3.39	464.1	463	<i>271, 300</i>	42	40, 24	Quercetin-3-glucoside
Quercetin-3-rutinoside	-	3.41	610.2	609	<i>300</i>	42	24	Quercetin
Quercetin glucuronide	-	3.46	478.1	477	<i>151, 300</i>	42	38, 22	Quercetin glucuronide
4-OMe-quercetin	-	4.62	316.2	315	<i>151, 300</i>	28	32, 20	4-OMe-quercetin
Me-quercetin glucuronide	-	3.80	492.1	491	<i>151, 315</i>	42	38, 22	Quercetin glucuronide
Hippuric Acids								
Hippuric acid	-	1.58	179.2	178	<i>56, 77</i>	28	12, 16	Hippuric acid
3-OH-hippuric acid	-	1.04	195.2	194	<i>93, 121</i>	32	22, 24	3-OH-hippuric acid

MRM = Multiple Reaction Monitoring; RT = retention time; MW = molecular weight; CV = cone voltage; CE = collision energy.

^a Daughter fragments monitored; fragment listed in italics used for quantitation.

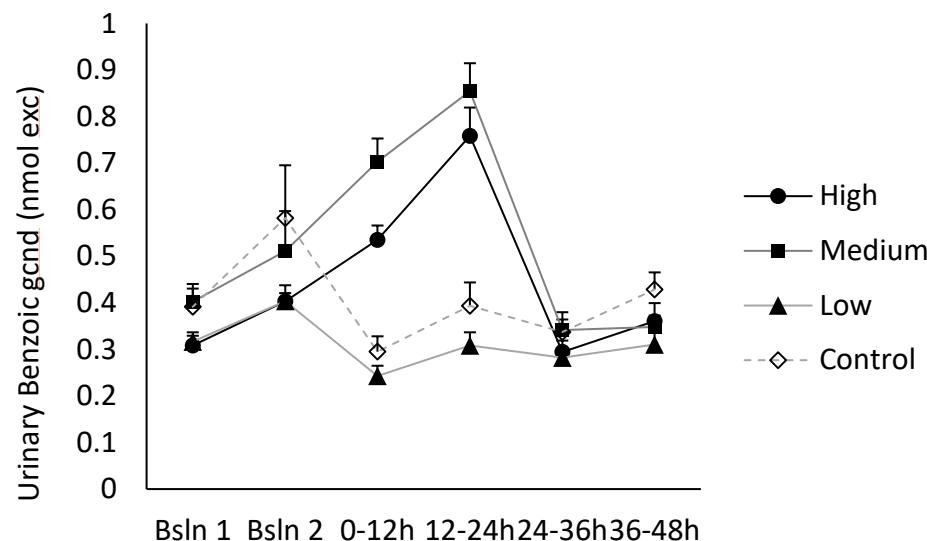
^b Galactoside and glucoside peaks overlapped and were not distinguishable, so quantitated as sum of both peaks.

Figure SI-1 – Urinary excretion of syringic acid.



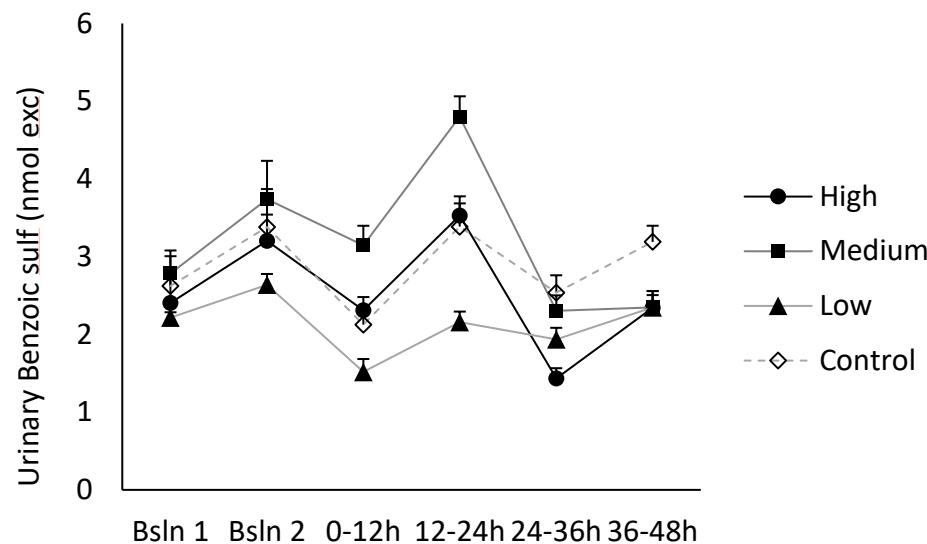
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	$0.23 \pm 0.09^{\text{aB}}$	$0.35 \pm 0.11^{\text{aB}}$	$1.03 \pm 0.3^{\text{aA}}$	$0.35 \pm 0.09^{\text{aB}}$	$0.25 \pm 0.06^{\text{aB}}$	$0.27 \pm 0.09^{\text{aB}}$
Medium	$0.65 \pm 0.34^{\text{bC}}$	$1.12 \pm 0.59^{\text{bC}}$	$12.16 \pm 2.95^{\text{bA}}$	$3.55 \pm 0.92^{\text{bB}}$	$0.65 \pm 0.4^{\text{bC}}$	$0.65 \pm 0.29^{\text{bC}}$
High	$1.39 \pm 0.58^{\text{cc}}$	$1.74 \pm 0.59^{\text{cc}}$	$35.06 \pm 6^{\text{cA}}$	$8.41 \pm 2.65^{\text{cB}}$	$1.9 \pm 1.25^{\text{cc}}$	$1.12 \pm 0.28^{\text{cc}}$

Figure SI-2 – Urinary excretion of benzoic acid glucuronide.



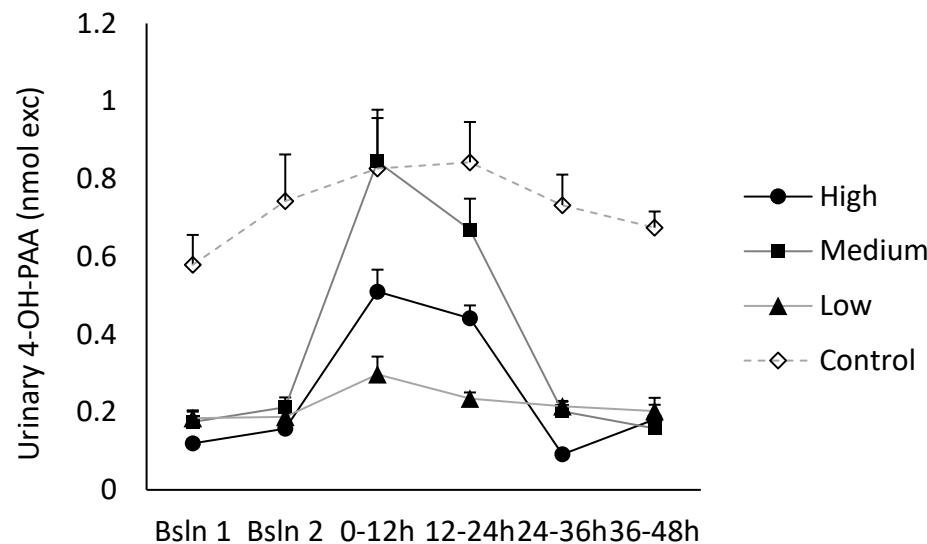
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	0.39 ± 0.14 ^A	0.58 ± 0.32 ^A	0.3 ± 0.09 ^{bC}	0.39 ± 0.14 ^{bABC}	0.34 ± 0.12 ^{BC}	0.43 ± 0.1 ^{AB}
Low	0.32 ± 0.04 ^A	0.4 ± 0.05 ^A	0.24 ± 0.06 ^{BB}	0.31 ± 0.08 ^{bAB}	0.28 ± 0.05 ^{AB}	0.31 ± 0.07 ^{AB}
Medium	0.4 ± 0.08 ^B	0.51 ± 0.24 ^B	0.7 ± 0.14 ^{aA}	0.85 ± 0.17 ^{aA}	0.34 ± 0.06 ^B	0.35 ± 0.07 ^B
High	0.31 ± 0.08 ^C	0.4 ± 0.1 ^C	0.54 ± 0.09 ^{aB}	0.76 ± 0.17 ^{aA}	0.29 ± 0.07 ^C	0.36 ± 0.1 ^C

Figure SI-3 – Urinary excretion of benzoic acid sulfate.



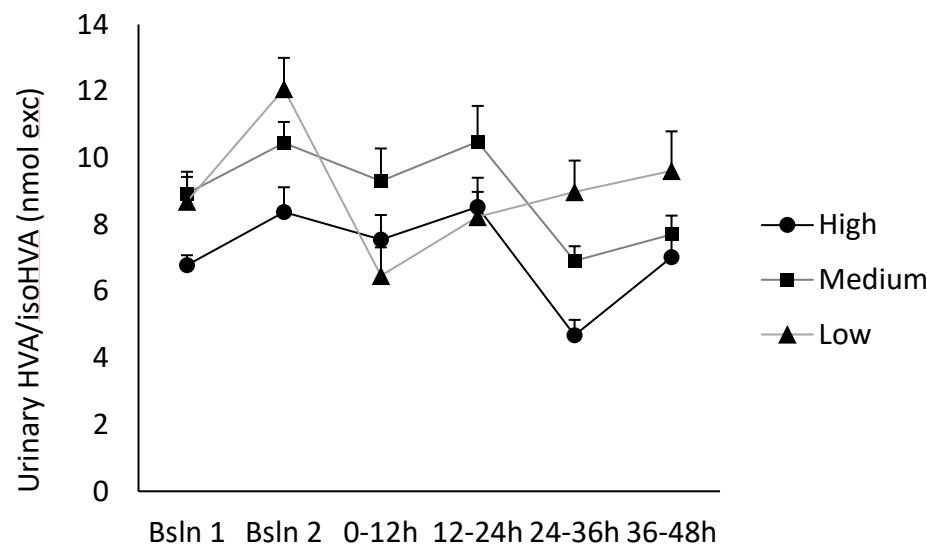
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	2.62 ± 1.09 ^{AB}	3.38 ± 1.3 ^{AB}	2.13 ± 0.59 ^{bA}	3.39 ± 0.85 ^{bB}	2.54 ± 0.63 ^{aAB}	3.19 ± 0.59 ^B
Low	2.21 ± 0.2 ^A	2.64 ± 0.39 ^A	1.52 ± 0.44 ^{cB}	2.16 ± 0.38 ^{cA}	1.93 ± 0.42 ^{abAB}	2.35 ± 0.6 ^A
Medium	2.78 ± 0.83 ^B	3.74 ± 1.39 ^B	3.15 ± 0.71 ^{Abc}	4.8 ± 0.74 ^{aA}	2.3 ± 0.56 ^{aD}	2.35 ± 0.59 ^{CD}
High	2.41 ± 0.87 ^{AB}	3.21 ± 0.95 ^{AB}	2.31 ± 0.48 ^{abB}	3.53 ± 0.7 ^{abA}	1.43 ± 0.37 ^{bc}	2.34 ± 0.43 ^B

Figure SI-4 – Urinary excretion of 4-hydroxyphenyl acetic acid.



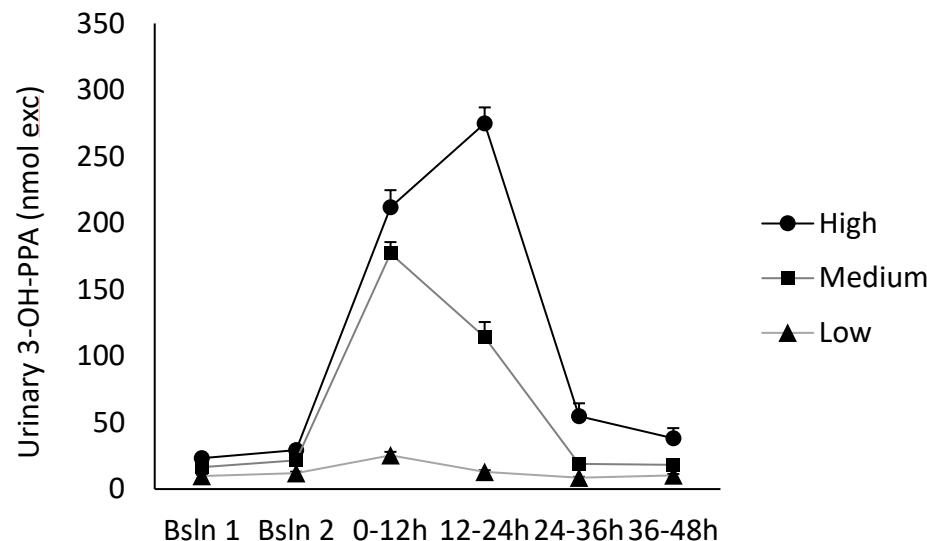
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	0.58 ± 0.22^a	0.74 ± 0.34^a	0.83 ± 0.37^{ab}	0.84 ± 0.29^a	0.73 ± 0.22^a	0.67 ± 0.12^a
Low	0.18 ± 0.05^b	0.19 ± 0.04^b	0.3 ± 0.12^c	0.23 ± 0.04^c	0.21 ± 0.04^b	0.2 ± 0.05^b
Medium	0.17 ± 0.08^{bB}	0.21 ± 0.07^{bB}	0.84 ± 0.38^{aA}	0.67 ± 0.23^{abA}	0.2 ± 0.07^{bB}	0.16 ± 0.08^{bB}
High	0.12 ± 0.03^{bBC}	0.16 ± 0.05^{bBC}	0.51 ± 0.16^{bA}	0.44 ± 0.09^{bA}	0.09 ± 0.02^{cC}	0.18 ± 0.15^{bB}

Figure SI-5 – Urinary excretion of homovanillic acid/isoHomovanillic acid.



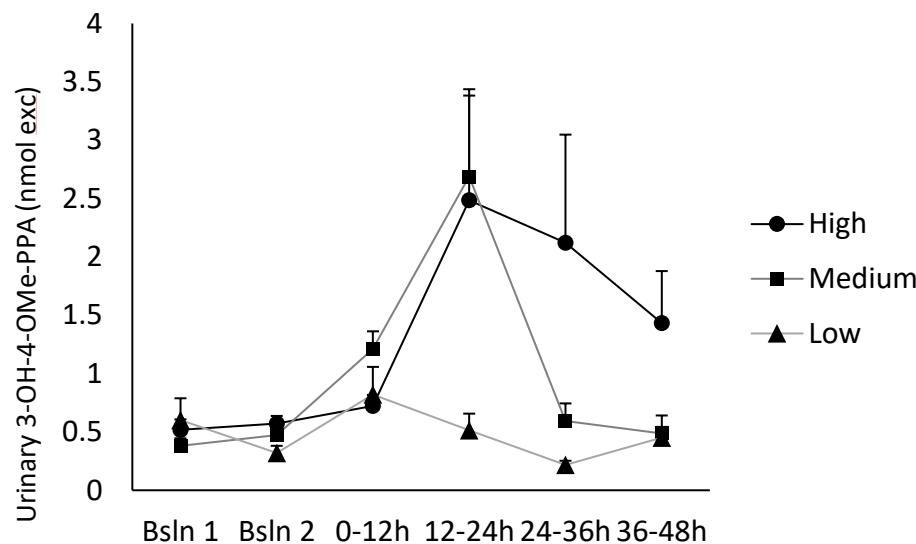
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	$8.69 \pm 2.07^{\text{aA}}$	$12.07 \pm 2.64^{\text{aA}}$	$6.46 \pm 2.25^{\text{bB}}$	$8.23 \pm 2.12^{\text{aAB}}$	$8.98 \pm 2.66^{\text{AB}}$	$9.61 \pm 3.34^{\text{A}}$
Medium	$8.93 \pm 1.83^{\text{Aab}}$	$10.45 \pm 1.66^{\text{abA}}$	$9.31 \pm 2.75^{\text{aAB}}$	$10.48 \pm 3.04^{\text{aA}}$	$6.91 \pm 1.24^{\text{B}}$	$7.7 \pm 1.61^{\text{AB}}$
High	$6.78 \pm 0.84^{\text{bA}}$	$8.37 \pm 1.97^{\text{bA}}$	$7.55 \pm 2.08^{\text{abA}}$	$8.53 \pm 2.48^{\text{bA}}$	$4.68 \pm 1.31^{\text{B}}$	$7.02 \pm 1.77^{\text{A}}$

Figure SI-6 – Urinary excretion of 3-hydroxyphenyl propionic acid.



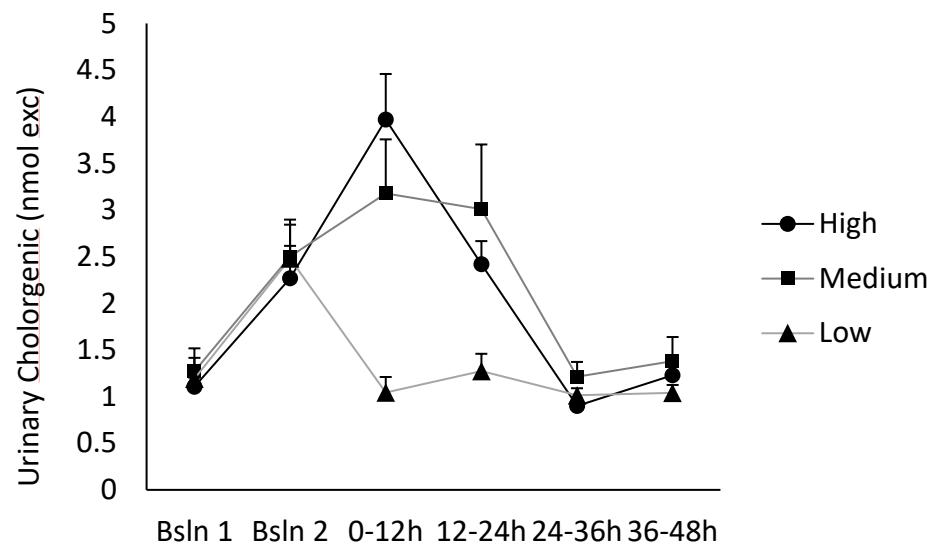
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	$9.69 \pm 3.33^{\text{cB}}$	$12.08 \pm 2.85^{\text{cB}}$	$25.37 \pm 6.93^{\text{bA}}$	$12.91 \pm 3.53^{\text{cB}}$	$8.54 \pm 1.81^{\text{cB}}$	$10.4 \pm 2.64^{\text{cB}}$
Medium	$16.45 \pm 5.88^{\text{bC}}$	$21.53 \pm 6.99^{\text{bC}}$	$177.12 \pm 24.15^{\text{aA}}$	$114.11 \pm 32.43^{\text{bB}}$	$18.96 \pm 5.23^{\text{bC}}$	$18.17 \pm 5.44^{\text{bC}}$
High	$23.24 \pm 7.67^{\text{aC}}$	$29.18 \pm 9.16^{\text{aC}}$	$211.81 \pm 36.43^{\text{aA}}$	$274.82 \pm 34.15^{\text{aA}}$	$54.68 \pm 27.76^{\text{aB}}$	$38.07 \pm 20.5^{\text{aBC}}$

Figure SI-7 – Urinary excretion of 3-hydroxy-4-methoxyphenyl propionic acid.



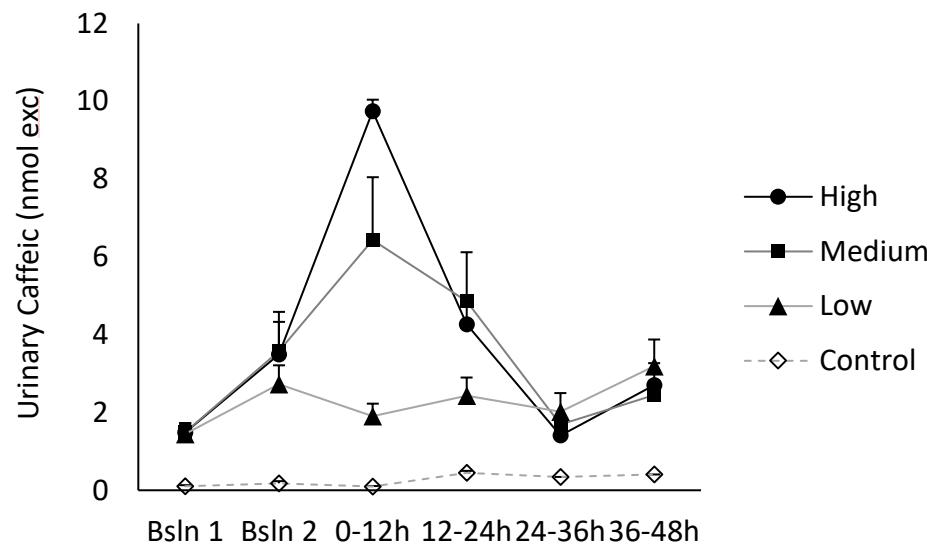
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.6 ± 0.42 ^{AB}	0.32 ± 0.17 ^{AB}	0.82 ± 0.58 ^A	0.51 ± 0.38 ^{bAB}	0.22 ± 0.09 ^b	0.45 ± 0.46 ^b
Medium	0.38 ± 0.18 ^B	0.47 ± 0.22 ^B	1.21 ± 0.43 ^A	2.69 ± 1.83 ^{aA}	0.59 ± 0.42 ^{bB}	0.49 ± 0.16 ^{bB}
High	0.52 ± 0.25 ^B	0.57 ± 0.19 ^B	0.72 ± 0.27 ^{AB}	2.48 ± 2.69 ^{aA}	2.12 ± 2.45 ^{aAB}	1.43 ± 1.09 ^{aAB}

Figure SI-8 – Urinary excretion of chlorogenic acid.



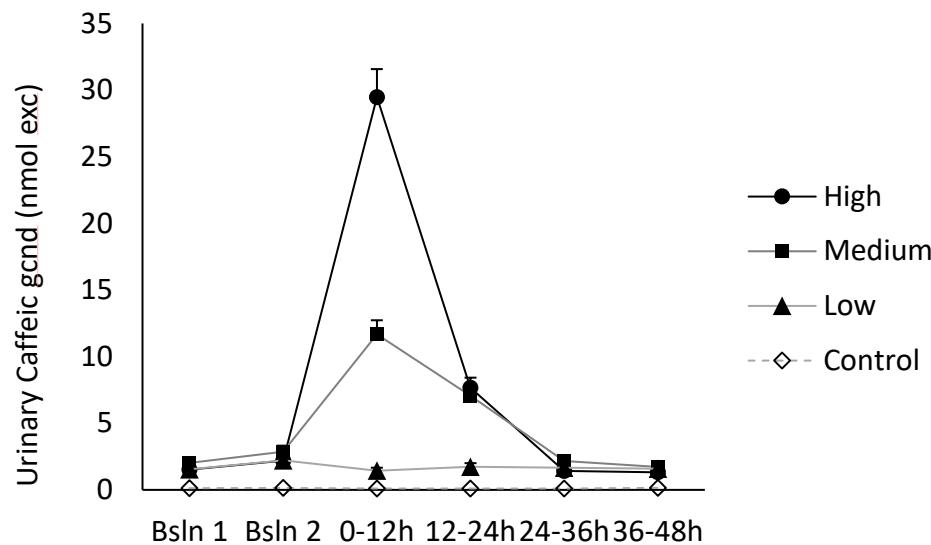
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	1.19 ± 0.64^B	2.48 ± 1.03^A	1.04 ± 0.44^{bB}	1.27 ± 0.52^{bB}	1.01 ± 0.21^B	1.04 ± 0.24^B
Medium	1.27 ± 0.7^B	2.5 ± 1.12^A	3.18 ± 1.64^{aA}	3.01 ± 1.97^{aA}	1.21 ± 0.45^B	1.38 ± 0.73^B
High	1.11 ± 0.27^C	2.27 ± 0.98^B	3.97 ± 1.38^{aA}	2.42 ± 0.7^{aAB}	0.9 ± 0.24^D	1.23 ± 0.34^{CD}

Figure SI-9 – Urinary excretion of caffeic acid.



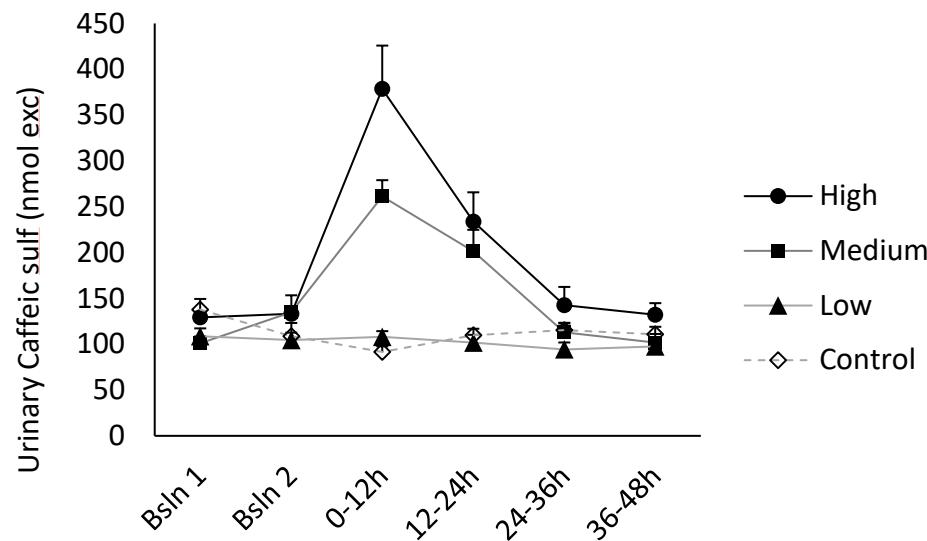
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	0.11 ± 0.06 ^b	0.18 ± 0.11 ^b	0.1 ± 0.02 ^c	0.45 ± 0.07 ^b	0.34 ± 0.06 ^b	0.41 ± 0.07 ^b
Low	1.45 ± 0.78 ^a	2.73 ± 1.37 ^a	1.9 ± 0.85 ^b	2.43 ± 1.32 ^a	2.02 ± 1.35 ^a	3.19 ± 1.94 ^a
Medium	1.49 ± 0.67 ^{aC}	3.57 ± 2.13 ^{aBC}	6.43 ± 4.57 ^{aA}	4.86 ± 3.57 ^{aAB}	1.69 ± 0.59 ^{aC}	2.44 ± 1.05 ^{aBC}
High	1.48 ± 0.55 ^{aC}	3.49 ± 3.09 ^{aBC}	9.74 ± 0.78 ^{aA}	4.27 ± 1.66 ^{aB}	1.41 ± 0.88 ^{aC}	2.7 ± 1.49 ^{aBC}

Figure SI-10 – Urinary excretion of caffeic acid glucuronide.



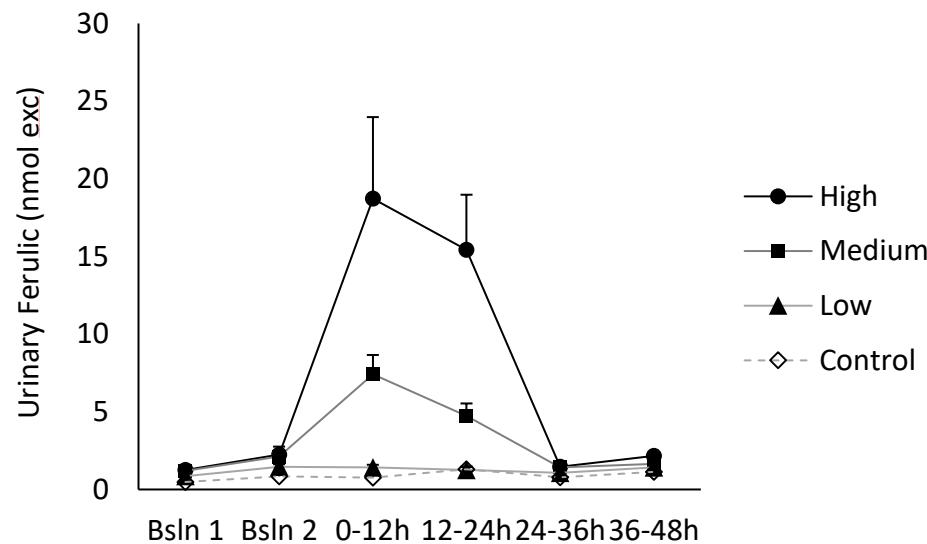
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	0.12 ± 0.03 ^b	0.14 ± 0.04 ^b	0.1 ± 0.03 ^d	0.11 ± 0.05 ^c	0.1 ± 0.03 ^b	0.14 ± 0.05 ^b
Low	1.55 ± 0.42 ^a	2.22 ± 0.95 ^a	1.44 ± 0.59 ^c	1.73 ± 0.78 ^b	1.67 ± 0.6 ^a	1.59 ± 0.76 ^a
Medium	2.03 ± 0.27 ^{aC}	2.86 ± 1.29 ^{aC}	11.67 ± 2.98 ^{bA}	7.07 ± 1.73 ^{aB}	2.17 ± 0.7 ^{aC}	1.72 ± 0.32 ^{aC}
High	1.52 ± 0.49 ^{aC}	2.19 ± 0.59 ^{aC}	29.48 ± 5.93 ^{aA}	7.67 ± 2.13 ^{aB}	1.42 ± 0.48 ^{aC}	1.32 ± 0.63 ^{aC}

Figure SI-11 – Urinary excretion of caffeic acid sulfate.



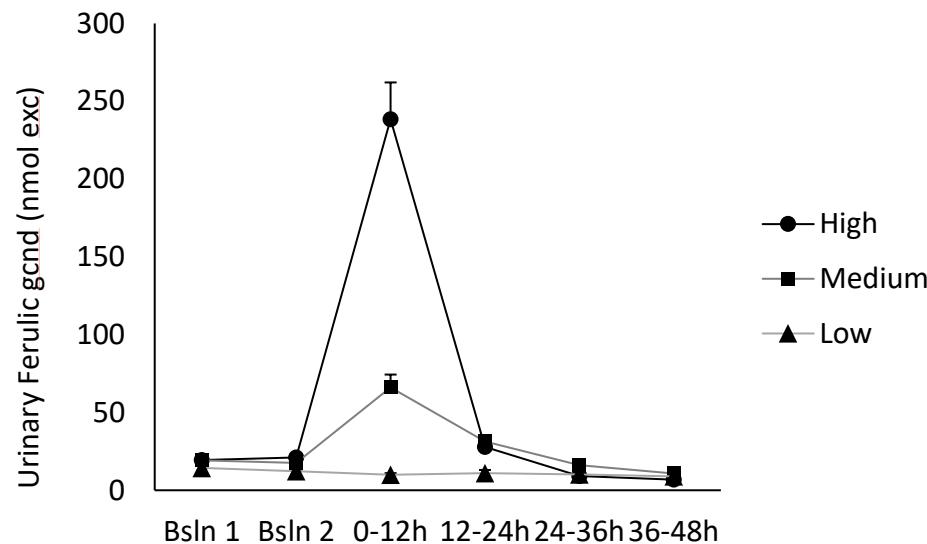
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	137.8 ± 32.9	108.9 ± 40.4	91.6 ± 17.5	109.9 ± 19.8	115.5 ± 22.2 ^{ab}	110.8 ± 23.2
Low	108.7 ± 24.3	104.4 ± 23.1	108 ± 16.6	101.8 ± 23.8	94.3 ± 21.5 ^b	97.6 ± 16.9
Medium	101 ± 21.2 ^B	134.8 ± 52.6 ^B	261.3 ± 50.1 ^{aA}	201.2 ± 66.8 ^{aA}	113 ± 27.6 ^{abB}	101.7 ± 26.7 ^B
High	129.2 ± 17.3 ^C	133.1 ± 18.9 ^C	378.5 ± 133.9 ^{aA}	233.7 ± 90.6 ^{ab}	142.6 ± 56.2 ^{ac}	132.2 ± 33.2 ^C

Figure SI-12 – Urinary excretion of ferulic acid.



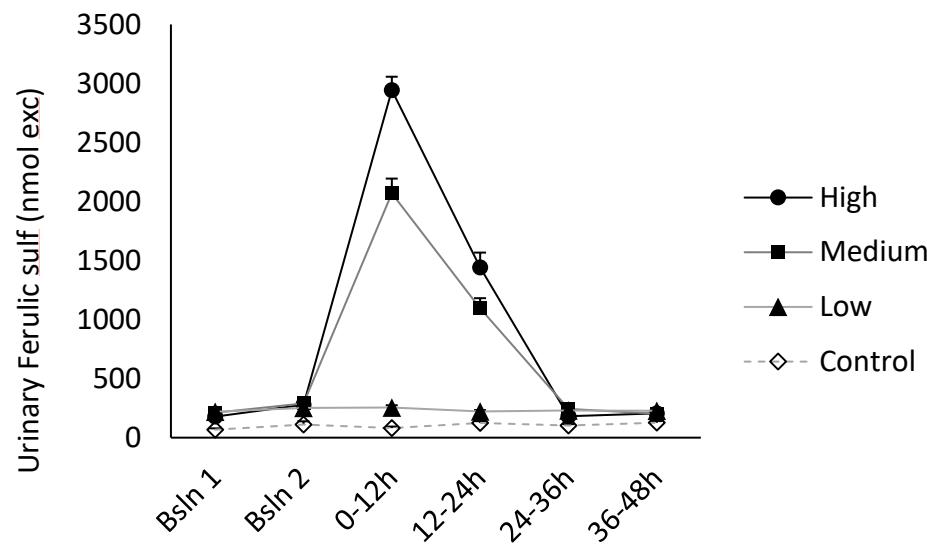
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	0.48 ± 0.18 ^{bB}	0.85 ± 0.27 ^{bAB}	0.77 ± 0.43 ^{dAB}	1.3 ± 0.42 ^{cA}	0.79 ± 0.14 ^{AB}	1.14 ± 0.39 ^A
Low	0.86 ± 0.42 ^a	1.46 ± 0.46 ^a	1.43 ± 0.43 ^c	1.25 ± 0.65 ^c	1.07 ± 0.59	1.42 ± 0.74
Medium	1.2 ± 0.42 ^{aB}	2.13 ± 1.07 ^{aB}	7.41 ± 3.52 ^{aA}	4.75 ± 2.24 ^{bA}	1.41 ± 0.33 ^B	1.64 ± 0.56 ^B
High	1.26 ± 0.47 ^{aB}	2.24 ± 1.46 ^{aB}	18.72 ± 14.86 ^{aA}	15.43 ± 10.03 ^{aA}	1.47 ± 0.62 ^B	2.16 ± 0.6 ^B

Figure SI-13 – Urinary excretion of ferulic acid glucuronide.



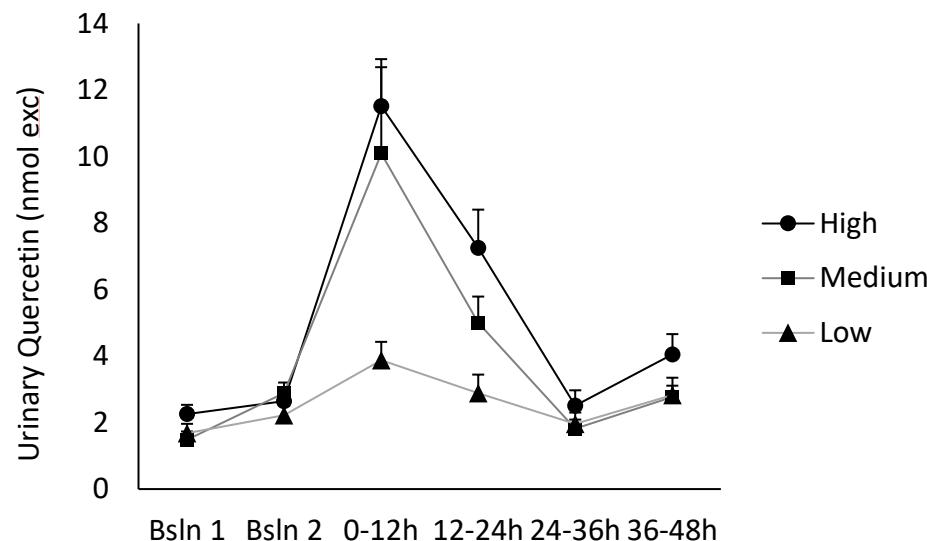
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	14.4 ± 5.7	12.3 ± 2.5	9.9 ± 2.9 ^c	11.1 ± 5.5 ^b	10.2 ± 3.3 ^{ab}	8.9 ± 2.7 ^a
Medium	19.2 ± 4.2 ^c	17.6 ± 4.4 ^c	66.1 ± 23.4 ^{bA}	31.3 ± 10.5 ^{aB}	16.2 ± 6.5 ^{aCD}	10.8 ± 3 ^{aD}
High	19.5 ± 2.4 ^b	21.2 ± 6.2 ^b	238.4 ± 66.9 ^{aA}	27.8 ± 6.6 ^{aB}	9.2 ± 4 ^{bc}	6.8 ± 4.1 ^{bc}

Figure SI-14 – Urinary excretion of ferulic acid sulfate.



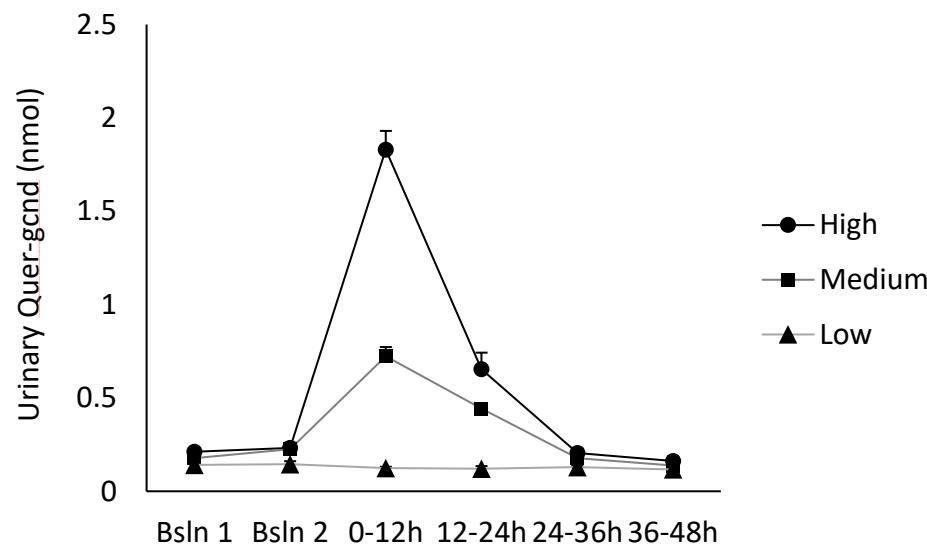
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	$67.6 \pm 31.7^{\text{bB}}$	$110.8 \pm 78.2^{\text{bAB}}$	$80.9 \pm 37.8^{\text{cB}}$	$125 \pm 41.1^{\text{cA}}$	$102.5 \pm 33.7^{\text{bAB}}$	$126.4 \pm 39^{\text{bA}}$
Low	$219.1 \pm 31.5^{\text{a}}$	$250.8 \pm 52.9^{\text{a}}$	$255.2 \pm 50.7^{\text{b}}$	$221.3 \pm 34.2^{\text{b}}$	$230.9 \pm 53.3^{\text{a}}$	$228.3 \pm 49^{\text{a}}$
Medium	$209.8 \pm 59.3^{\text{aC}}$	$289.7 \pm 105.6^{\text{aC}}$	$2069.4 \pm 353.8^{\text{aA}}$	$1095.8 \pm 242.1^{\text{aB}}$	$243.4 \pm 55.7^{\text{aC}}$	$202.3 \pm 30.7^{\text{aC}}$
High	$177.9 \pm 23.6^{\text{aC}}$	$278.7 \pm 82.7^{\text{aC}}$	$2943.2 \pm 301.9^{\text{aA}}$	$1440.6 \pm 359.1^{\text{aB}}$	$182.3 \pm 60.4^{\text{aC}}$	$205.7 \pm 41.3^{\text{aC}}$

Figure SI-15 – Urinary excretion of quercetin.



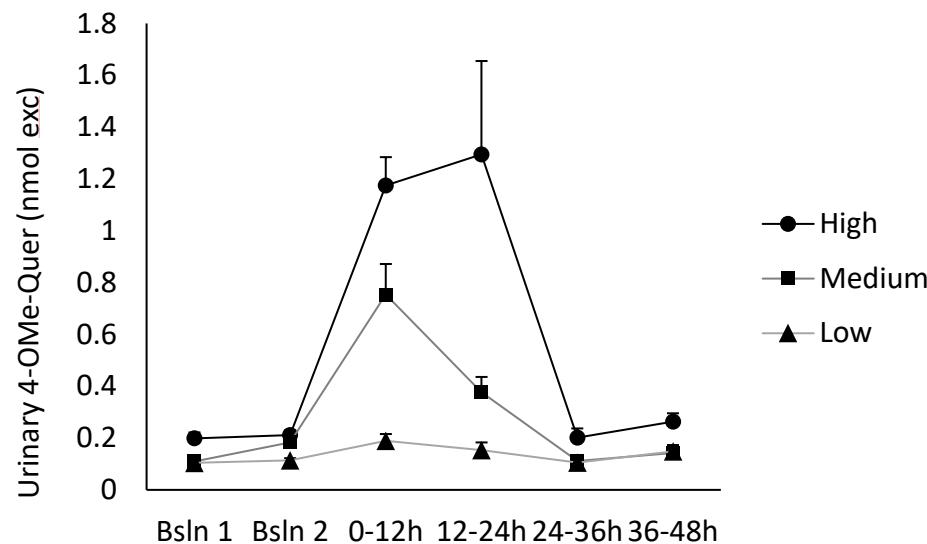
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	1.68 ± 0.8^B	2.22 ± 0.74^B	3.88 ± 1.46^{bA}	2.88 ± 1.59^{bAB}	1.96 ± 0.97^B	2.83 ± 1.47^{AB}
Medium	1.48 ± 0.7^C	2.89 ± 0.84^C	10.09 ± 7.35^{aA}	5 ± 2.22^{abAB}	1.82 ± 0.77^C	2.77 ± 0.97^{BC}
High	2.25 ± 0.79^C	2.64 ± 1.01^C	11.52 ± 3.99^{aA}	7.25 ± 3.26^{aAB}	2.5 ± 1.32^C	4.05 ± 1.61^{BC}

Figure SI-16 – Urinary excretion of quercetin glucuronide.



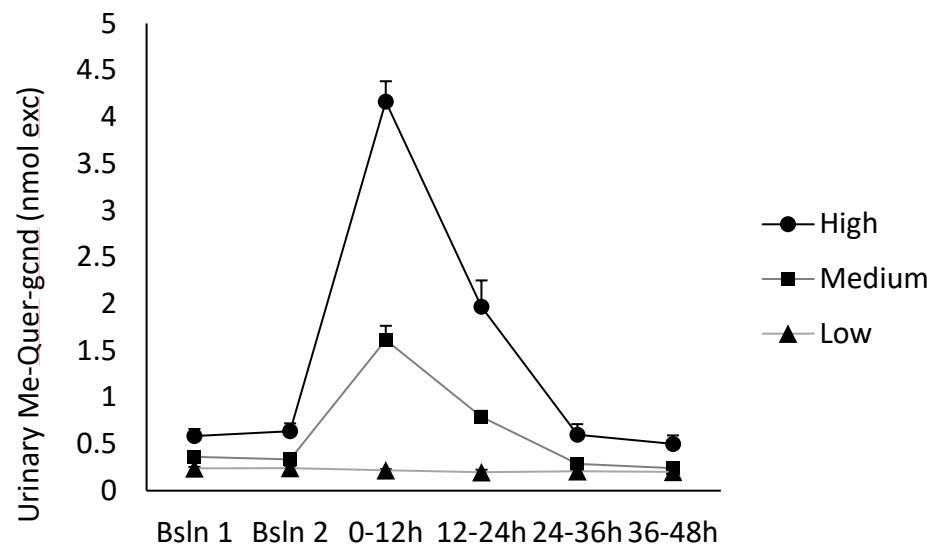
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.14 ± 0.02^b	0.15 ± 0.05^b	0.12 ± 0.02^c	0.12 ± 0.04^c	0.13 ± 0.02^b	0.12 ± 0.03
Medium	0.18 ± 0.03^{aCD}	0.23 ± 0.1^{aC}	0.72 ± 0.14^{bA}	0.44 ± 0.06^{bB}	0.18 ± 0.04^{aCD}	0.14 ± 0.03^D
High	0.21 ± 0.06^{aCD}	0.23 ± 0.06^{aC}	1.83 ± 0.28^{aA}	0.65 ± 0.25^{aB}	0.21 ± 0.08^{aCD}	0.16 ± 0.07^D

Figure SI-17 – Urinary excretion of 4-methoxy quercetin.



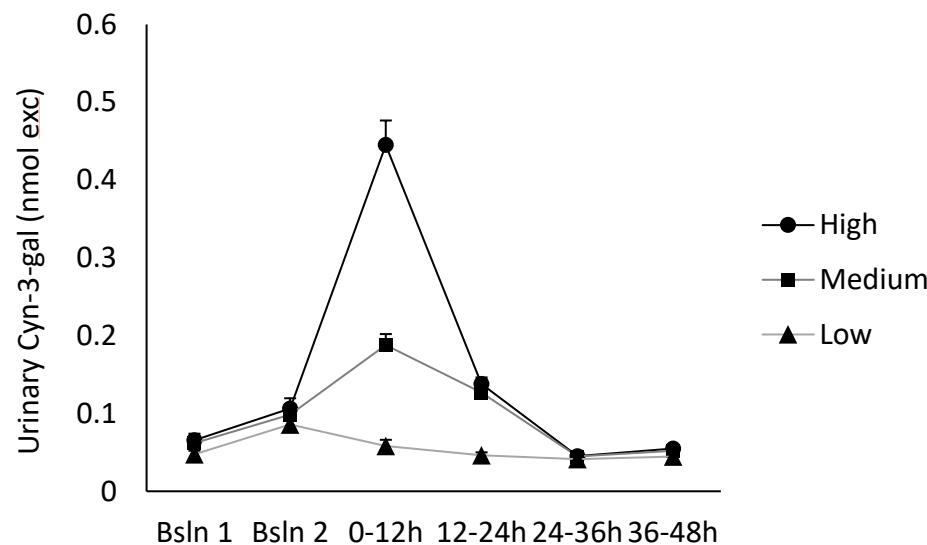
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.1 ± 0.05 ^{bB}	0.11 ± 0.02 ^{bB}	0.19 ± 0.08 ^{bA}	0.15 ± 0.08 ^{cAB}	0.11 ± 0.05 ^{bB}	0.15 ± 0.07 ^{bAB}
Medium	0.11 ± 0.04 ^{bc}	0.18 ± 0.04 ^{aC}	0.75 ± 0.33 ^{aA}	0.38 ± 0.17 ^{bB}	0.11 ± 0.04 ^{abC}	0.14 ± 0.05 ^{bc}
High	0.2 ± 0.06 ^{aB}	0.21 ± 0.06 ^{ab}	1.17 ± 0.31 ^{aA}	1.29 ± 1.02 ^{aA}	0.2 ± 0.11 ^{aB}	0.26 ± 0.1 ^{aB}

Figure SI-18 – Urinary excretion of methyl quercetin glucuronide.



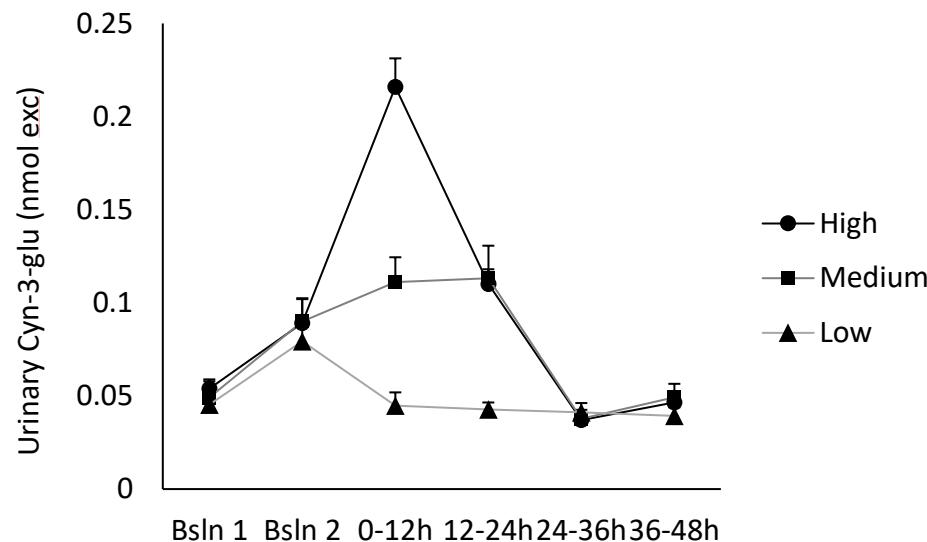
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.24 ± 0.04^b	0.24 ± 0.07^b	0.22 ± 0.04^c	0.2 ± 0.08^c	0.21 ± 0.05^b	0.2 ± 0.09^b
Medium	0.36 ± 0.16^{bc}	0.34 ± 0.1^{bc}	1.61 ± 0.43^{bA}	0.79 ± 0.18^{bB}	0.29 ± 0.09^{bc}	0.24 ± 0.09^{bc}
High	0.59 ± 0.21^{ac}	0.64 ± 0.24^{ac}	4.16 ± 0.58^{aA}	1.97 ± 0.75^{aB}	0.6 ± 0.3^{ac}	0.5 ± 0.24^{ac}

Figure SI-19 – Urinary excretion of cyanidin-3-galactoside.



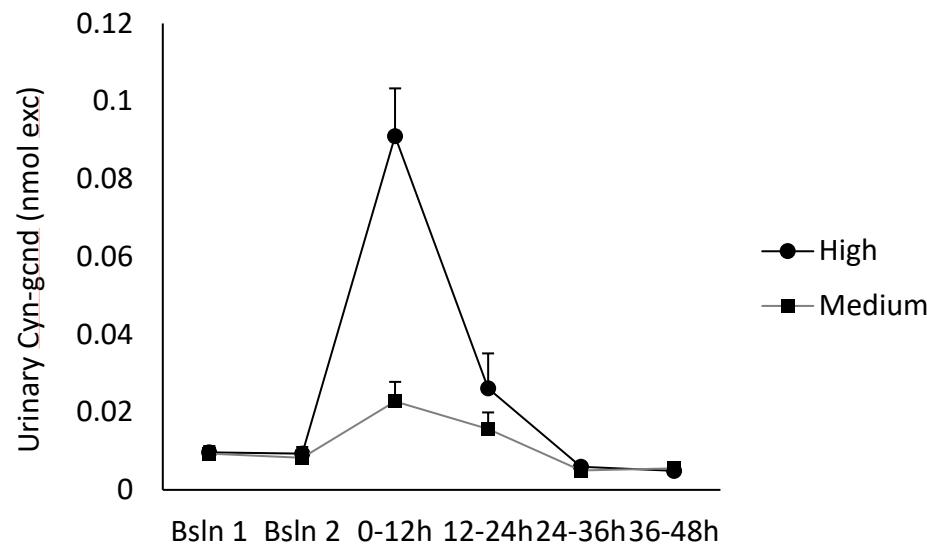
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.0473 ± 0.0133 ^A	0.0858 ± 0.022 ^A	0.0583 ± 0.0206 ^{cAB}	0.0463 ± 0.0108 ^{bAB}	0.0413 ± 0.0134 ^B	0.0446 ± 0.0159 ^B
Medium	0.062 ± 0.034 ^C	0.0984 ± 0.0373 ^C	0.1879 ± 0.0399 ^{bA}	0.1267 ± 0.0489 ^{aB}	0.0448 ± 0.0145 ^D	0.0521 ± 0.0175 ^D
High	0.0656 ± 0.0163 ^C	0.1065 ± 0.0369 ^C	0.445 ± 0.0891 ^{aA}	0.138 ± 0.0234 ^{aB}	0.0452 ± 0.0085 ^D	0.0548 ± 0.0057 ^D

Figure SI-20 – Urinary excretion of cyanidin-3-glucoside.



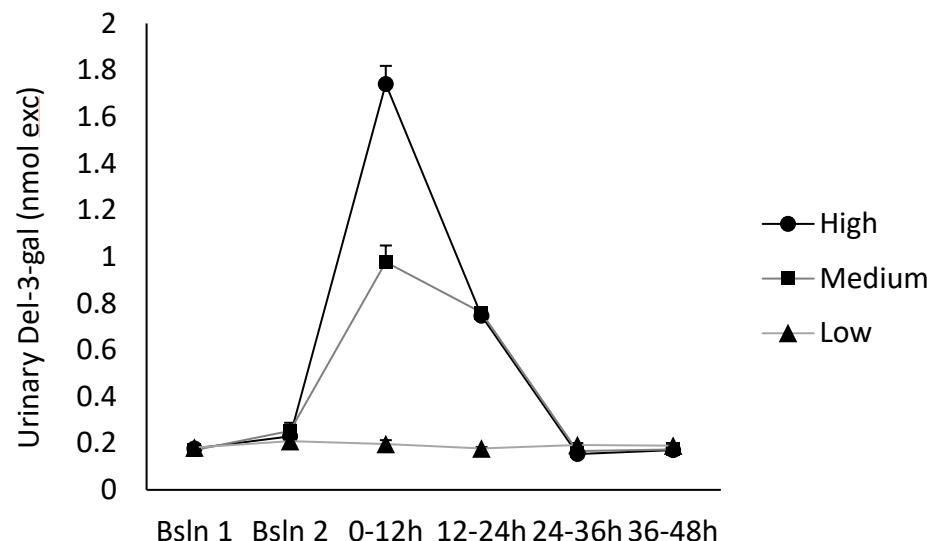
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.0453 ± 0.0151^B	0.0794 ± 0.0239^A	0.0448 ± 0.0188^{cB}	0.0427 ± 0.0107^{bB}	0.0411 ± 0.0143^B	0.0393 ± 0.013^B
Medium	0.0492 ± 0.0247^{BC}	0.0901 ± 0.0337^B	0.1111 ± 0.0379^{bA}	0.1132 ± 0.0495^{aA}	0.0378 ± 0.0136^D	0.0493 ± 0.0205^{CD}
High	0.0539 ± 0.0142^{CD}	0.0892 ± 0.0375^C	0.216 ± 0.0433^{aA}	0.11 ± 0.0226^{ab}	0.037 ± 0.0078^E	0.0466 ± 0.0089^{DE}

Figure SI-21 – Urinary excretion of cyanidin glucuronide.



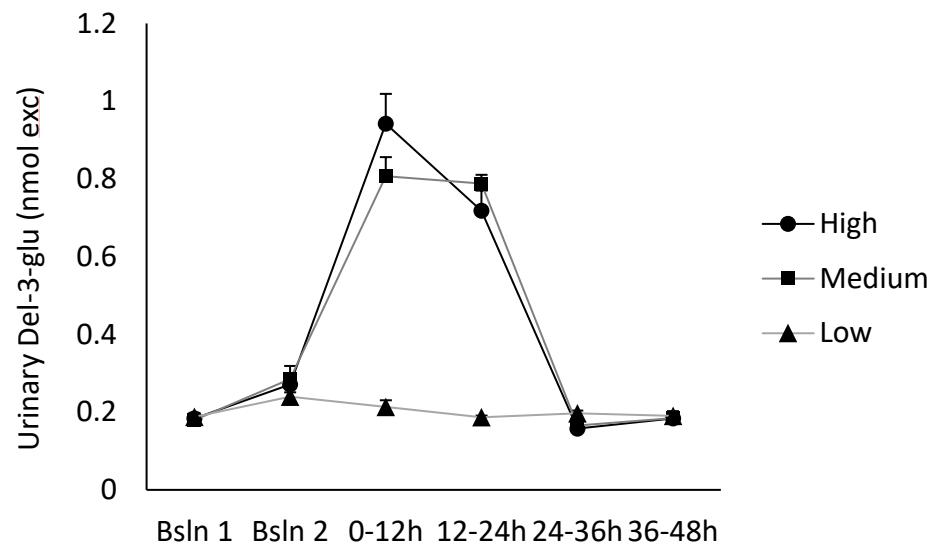
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	nd	nd	nd	nd	nd	nd
Medium	$0.0093 \pm 0.0045^{\text{BC}}$	$0.0083 \pm 0.0027^{\text{BC}}$	$0.0228 \pm 0.0142^{\text{b}}$	$0.0157 \pm 0.012^{\text{B}}$	$0.005 \pm 0.0016^{\text{C}}$	$0.0055 \pm 0.0003^{\text{C}}$
High	$0.0097 \pm 0.0045^{\text{BC}}$	$0.0093 \pm 0.0049^{\text{BC}}$	$0.091 \pm 0.0348^{\text{a}}$	$0.0262 \pm 0.0253^{\text{B}}$	$0.006 \pm 0.0019^{\text{C}}$	$0.0049 \pm 0.0014^{\text{C}}$

Figure SI-22 – Urinary excretion of delphinidin-3-galactoside.



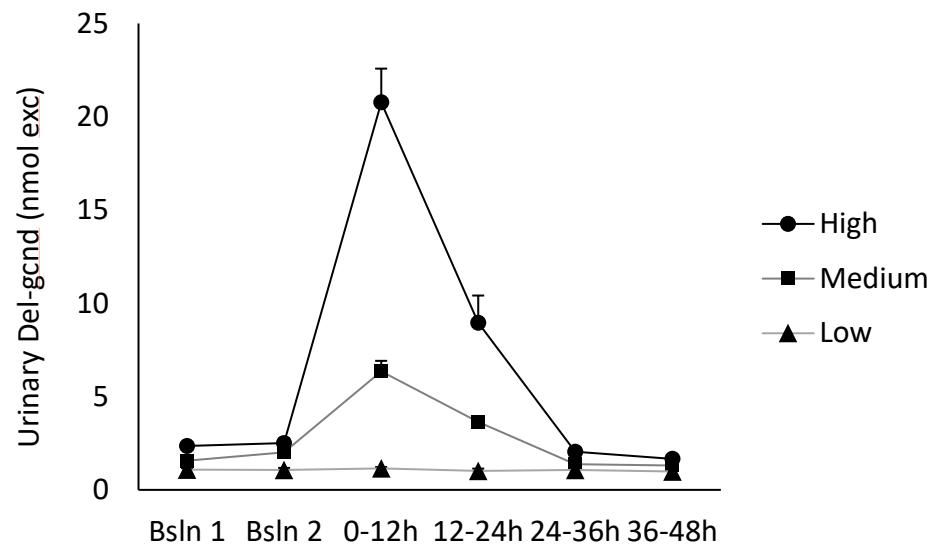
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.1821 ± 0.0096	0.2089 ± 0.0251	0.1968 ± 0.043 ^c	0.1777 ± 0.0163 ^b	0.1924 ± 0.0222	0.1904 ± 0.0226
Medium	0.1705 ± 0.0297 ^B	0.2522 ± 0.1005 ^B	0.9769 ± 0.2007 ^{bA}	0.7607 ± 0.0642 ^{aA}	0.1664 ± 0.0359 ^B	0.173 ± 0.0269 ^B
High	0.178 ± 0.0256 ^c	0.2291 ± 0.0856 ^c	1.7408 ± 0.2185 ^{aA}	0.7474 ± 0.0909 ^{ab}	0.1536 ± 0.0192 ^c	0.1701 ± 0.0184 ^c

Figure SI-23 – Urinary excretion of delphinidin-3-glucoside.



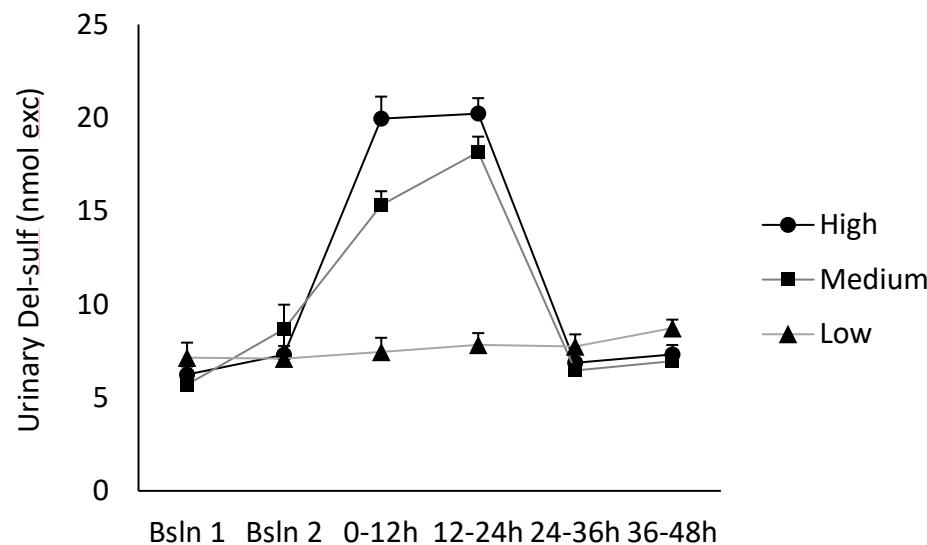
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.1883 ± 0.0202	0.2397 ± 0.0316	0.2137 ± 0.0445 ^b	0.1867 ± 0.0124 ^b	0.197 ± 0.0199 ^a	0.1906 ± 0.0185
Medium	0.1795 ± 0.049 ^{BC}	0.2849 ± 0.096 ^B	0.807 ± 0.1387 ^{aA}	0.7878 ± 0.0644 ^{aA}	0.1656 ± 0.0317 ^{bC}	0.1844 ± 0.0514 ^{BC}
High	0.184 ± 0.0255 ^{CD}	0.271 ± 0.0838 ^C	0.9421 ± 0.217 ^{aA}	0.7179 ± 0.1472 ^{ab}	0.1578 ± 0.0188 ^{bD}	0.1839 ± 0.0166 ^{CD}

Figure SI-24 – Urinary excretion of delphinidin glucuronide.



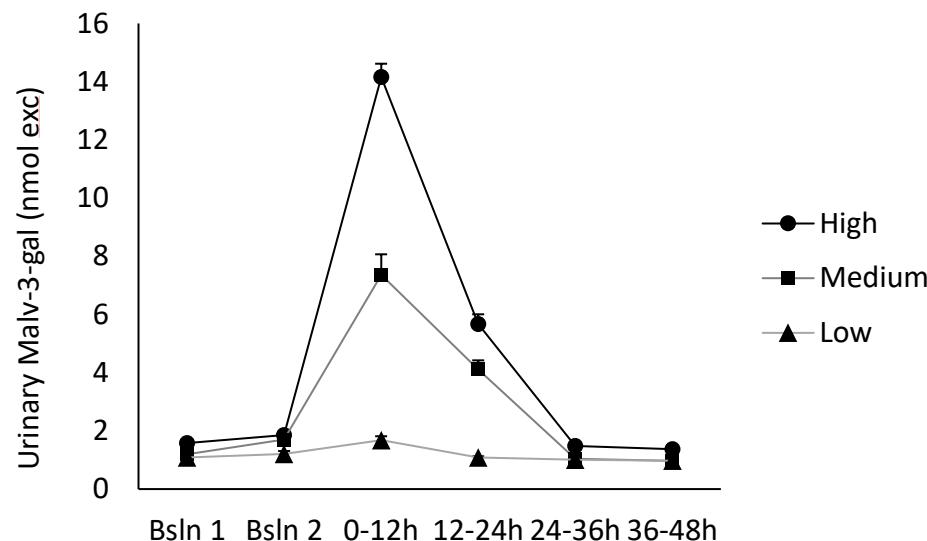
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	1.08 ± 0.22^b	1.07 ± 0.31^b	1.15 ± 0.19^c	1.01 ± 0.37^c	1.06 ± 0.29^b	0.99 ± 0.43^b
Medium	1.57 ± 0.39^{bc}	2.01 ± 0.80^{ac}	6.35 ± 1.60^{bA}	3.63 ± 0.59^{bB}	1.37 ± 0.41^{bc}	1.31 ± 0.39^{abC}
High	2.36 ± 0.56^{ac}	2.50 ± 0.75^{ac}	20.77 ± 5.12^{aA}	8.96 ± 4.11^{aB}	2.05 ± 0.54^{aCD}	1.66 ± 0.55^{aD}

Figure SI-25 – Urinary excretion of delphinidin sulfate.



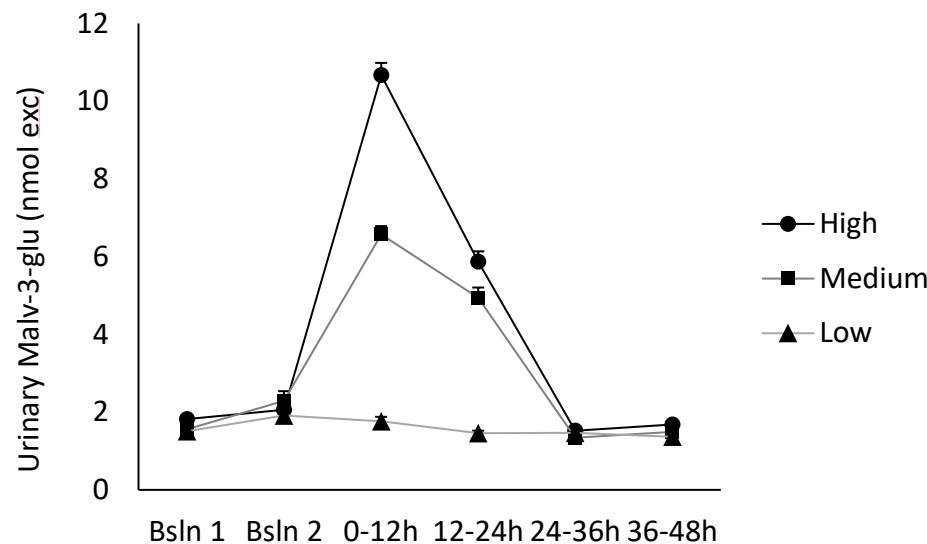
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	7.14 ± 2.28	7.09 ± 1.92	7.45 ± 1.99 ^c	7.83 ± 1.78 ^b	7.75 ± 1.81	8.72 ± 1.29
Medium	5.69 ± 0.89 ^B	8.67 ± 3.69 ^B	15.32 ± 2.11 ^{bA}	18.16 ± 2.35 ^{aA}	6.45 ± 1.2 ^B	6.95 ± 1.65 ^B
High	6.24 ± 1.22 ^B	7.29 ± 3.03 ^B	19.95 ± 3.35 ^{aA}	20.22 ± 2.35 ^{aA}	6.87 ± 1.34 ^B	7.31 ± 1.35 ^B

Figure SI-26 – Urinary excretion of malvidin-3-galactoside.



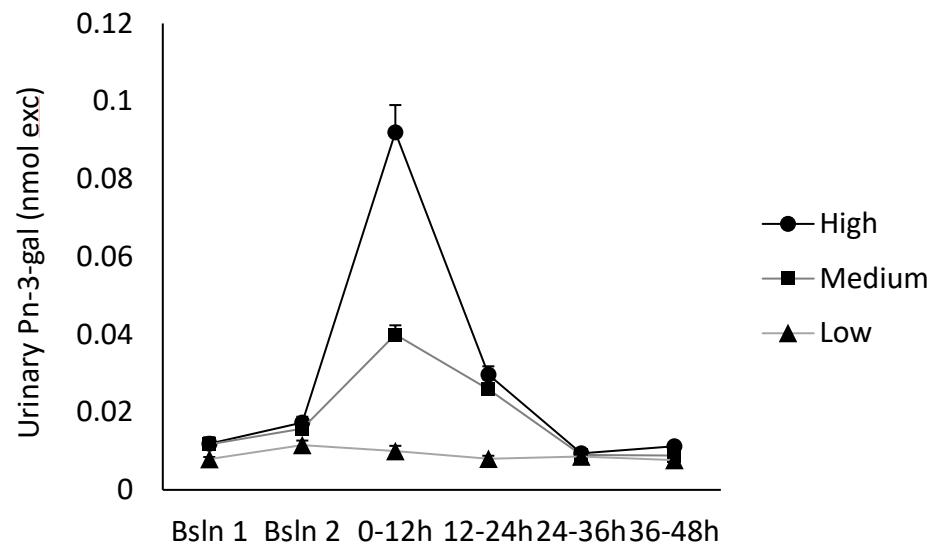
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	$1.09 \pm 0.12^{\text{bB}}$	$1.21 \pm 0.26^{\text{bB}}$	$1.68 \pm 0.33^{\text{cA}}$	$1.09 \pm 0.11^{\text{cB}}$	$1.01 \pm 0.13^{\text{bB}}$	$0.97 \pm 0.19^{\text{bB}}$
Medium	$1.19 \pm 0.27^{\text{bC}}$	$1.70 \pm 0.50^{\text{aC}}$	$7.36 \pm 2.00^{\text{bA}}$	$4.11 \pm 0.82^{\text{bB}}$	$1.04 \pm 0.31^{\text{bC}}$	$0.97 \pm 0.17^{\text{bC}}$
High	$1.58 \pm 0.20^{\text{aC}}$	$1.86 \pm 0.39^{\text{aC}}$	$14.16 \pm 1.30^{\text{aA}}$	$5.67 \pm 0.96^{\text{aB}}$	$1.48 \pm 0.18^{\text{aC}}$	$1.37 \pm 0.15^{\text{aC}}$

Figure SI-27 – Urinary excretion of malvidin-3-glucoside.



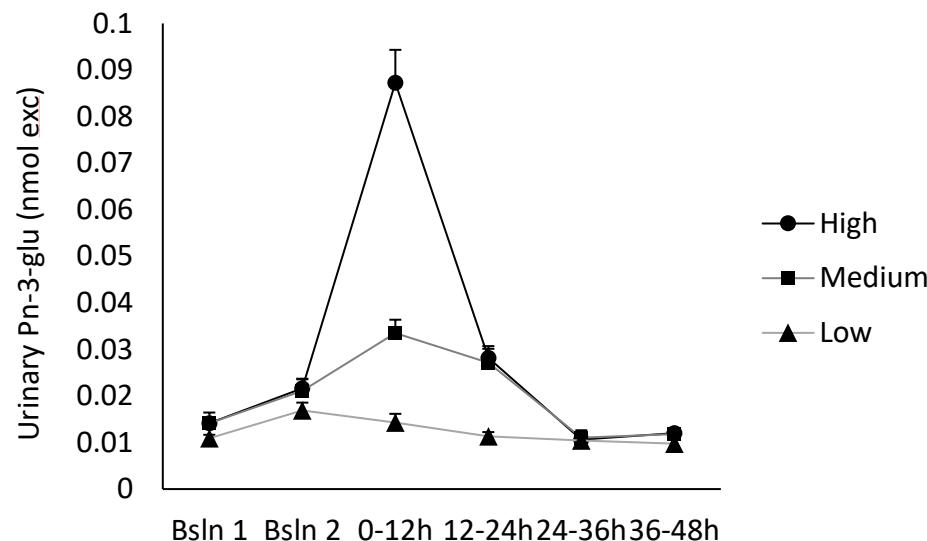
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	1.51 ± 0.14	1.91 ± 0.25	1.76 ± 0.31 ^c	1.46 ± 0.17 ^b	1.47 ± 0.25	1.37 ± 0.25
Medium	1.56 ± 0.34 ^{CD}	2.29 ± 0.7 ^c	6.57 ± 0.57 ^{bA}	4.94 ± 0.75 ^{aB}	1.34 ± 0.27 ^D	1.49 ± 0.3 ^D
High	1.82 ± 0.21 ^c	2.06 ± 0.12 ^c	10.67 ± 0.9 ^{aA}	5.87 ± 0.76 ^{aB}	1.52 ± 0.2 ^c	1.68 ± 0.11 ^c

Figure SI-28 – Urinary excretion of peonidin-3-galactoside.



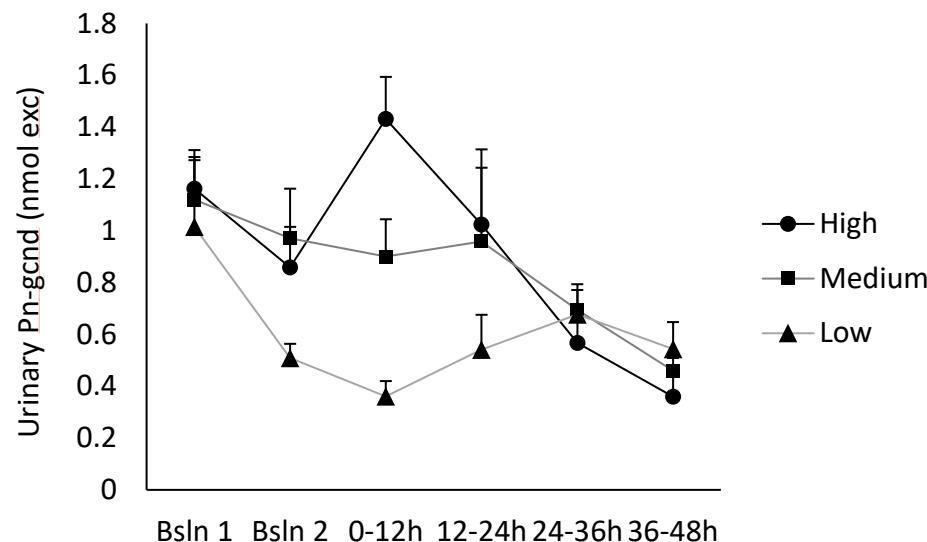
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.0079 ± 0.0014 ^b	0.0115 ± 0.0033 ^b	0.01 ± 0.0036 ^c	0.008 ± 0.0022 ^b	0.0086 ± 0.0028	0.0076 ± 0.0026
Medium	0.0117 ± 0.0053 ^{ac}	0.0158 ± 0.0045 ^{ac}	0.04 ± 0.0067 ^{bA}	0.0259 ± 0.0071 ^{aB}	0.009 ± 0.0036 ^D	0.0088 ± 0.0031 ^D
High	0.0119 ± 0.0021 ^{ac}	0.0173 ± 0.0042 ^{ac}	0.092 ± 0.0199 ^{aA}	0.0297 ± 0.0061 ^{aB}	0.0094 ± 0.0028 ^c	0.0113 ± 0.0013 ^c

Figure SI-29 – Urinary excretion of peonidin-3-glucoside.



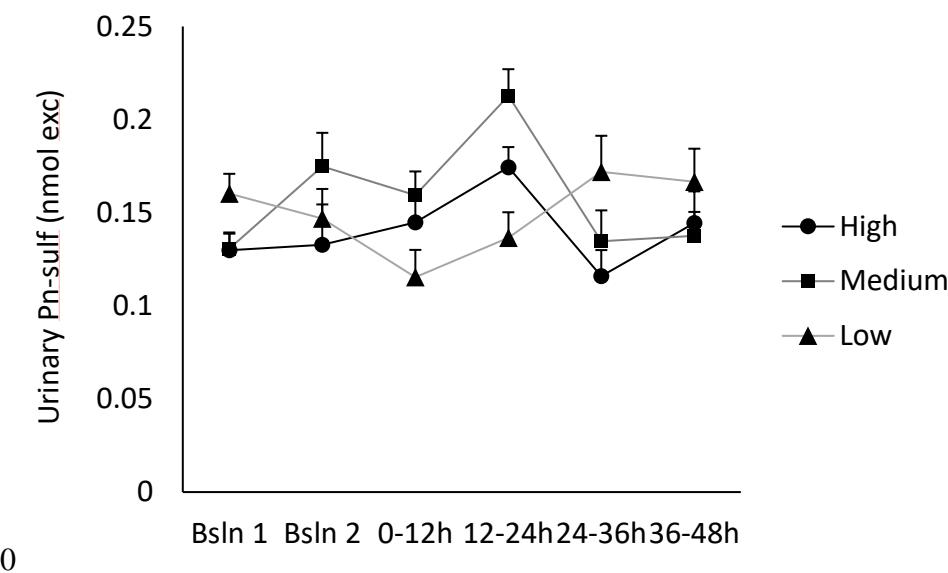
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.0109 ± 0.0022	0.0169 ± 0.0047	0.0143 ± 0.0005 ^c	0.0114 ± 0.0025 ^b	0.0105 ± 0.0035	0.0098 ± 0.0024
Medium	0.0142 ± 0.0064 ^{BC}	0.0211 ± 0.0074 ^B	0.0335 ± 0.0081 ^{bA}	0.0271 ± 0.0086 ^{aAB}	0.011 ± 0.0045 ^c	0.0118 ± 0.0023 ^c
High	0.0142 ± 0.0035 ^{CD}	0.0216 ± 0.0056 ^c	0.0872 ± 0.0201 ^{aA}	0.0282 ± 0.0071 ^{AB}	0.0106 ± 0.0023 ^D	0.012 ± 0.0028 ^D

Figure SI-30 – Urinary excretion of peonidin glucuronide.



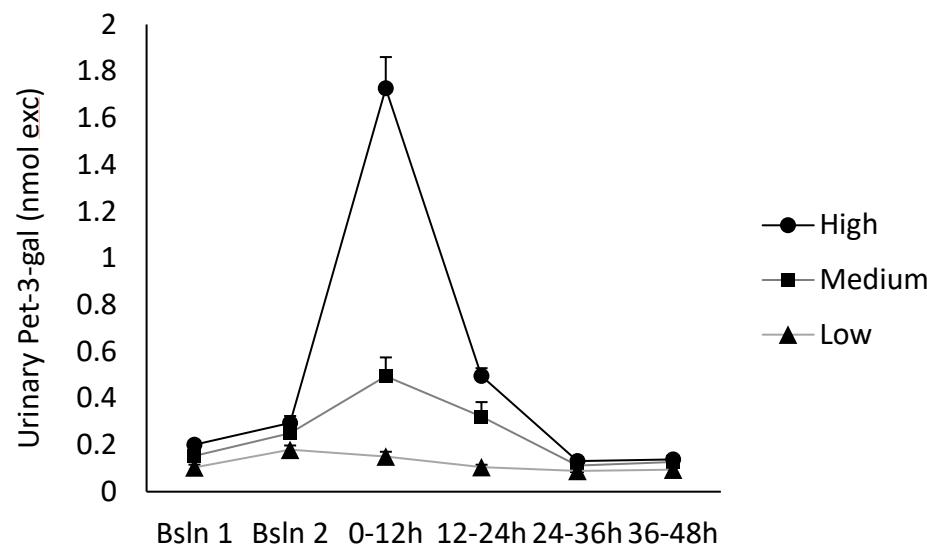
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	1.01 ± 0.73 ^A	0.51 ± 0.14 ^B	0.36 ± 0.16 ^{bB}	0.54 ± 0.38 ^{bB}	0.68 ± 0.27 ^B	0.54 ± 0.29 ^B
Medium	1.12 ± 0.47 ^A	0.97 ± 0.54 ^A	0.9 ± 0.41 ^{aAB}	0.96 ± 0.81 ^{abAB}	0.69 ± 0.28 ^{AB}	0.46 ± 0.14 ^B
High	1.16 ± 0.42 ^{AB}	0.86 ± 0.44 ^B	1.43 ± 0.46 ^{aA}	1.02 ± 0.82 ^{aAB}	0.57 ± 0.24 ^{BC}	0.36 ± 0.2 ^C

Figure SI-31 – Urinary excretion of peonidin sulfate.



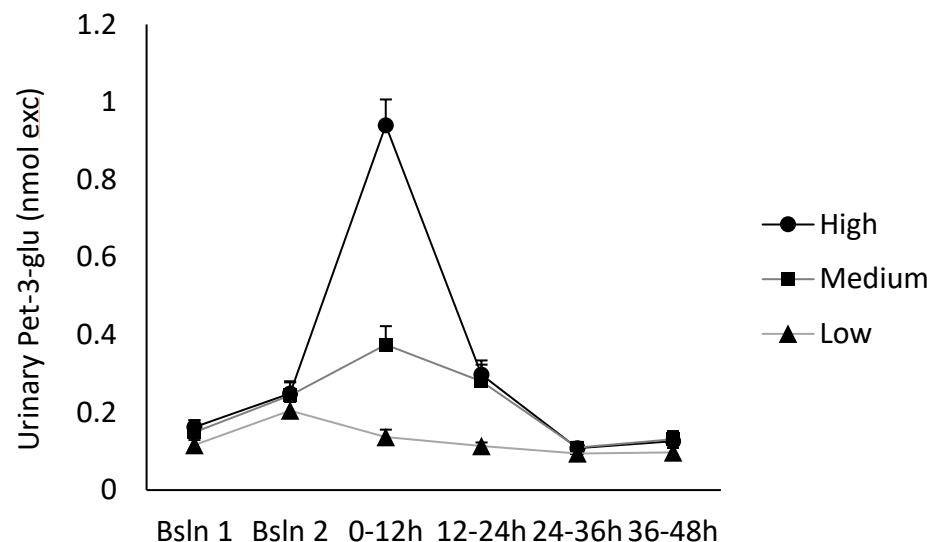
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.1603 ± 0.03^A	0.1468 ± 0.0452^{AB}	0.1154 ± 0.0388^B	0.1365 ± 0.0388^{AB}	0.1719 ± 0.0547^A	0.1667 ± 0.0501^A
Medium	0.1307 ± 0.0247	0.1748 ± 0.0511	0.1594 ± 0.0361	0.2128 ± 0.0404	0.1347 ± 0.0468	0.1376 ± 0.0362
High	0.1299 ± 0.0251^B	0.1328 ± 0.0611^B	0.1448 ± 0.0368^{AB}	0.1744 ± 0.0306^A	0.1159 ± 0.0396^B	0.1445 ± 0.0449^{AB}

Figure SI-32 – Urinary excretion of petunidin-3-galactoside.



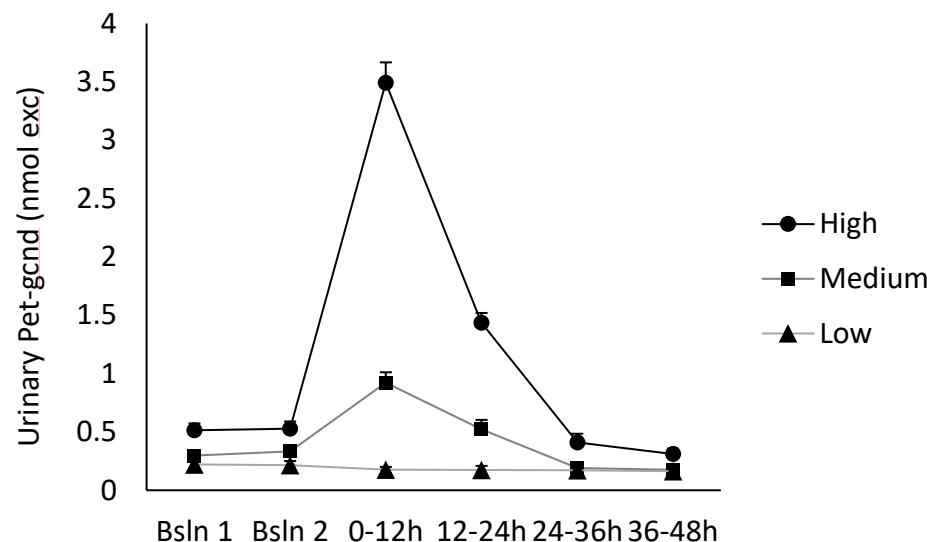
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.1 ± 0.03 ^{bB}	0.18 ± 0.05 ^{bA}	0.15 ± 0.05 ^{cA}	0.11 ± 0.03 ^{cAB}	0.09 ± 0.03 ^{bB}	0.09 ± 0.03 ^{AB}
Medium	0.15 ± 0.09 ^{abC}	0.25 ± 0.1 ^{abC}	0.49 ± 0.23 ^{bA}	0.32 ± 0.17 ^{bB}	0.11 ± 0.05 ^{abD}	0.13 ± 0.04 ^D
High	0.2 ± 0.04 ^{aC}	0.29 ± 0.09 ^{aC}	1.73 ± 0.38 ^{aA}	0.5 ± 0.09 ^{aB}	0.13 ± 0.02 ^{aD}	0.14 ± 0.02 ^D

Figure SI-33 – Urinary excretion of petunidin-3-glucoside.



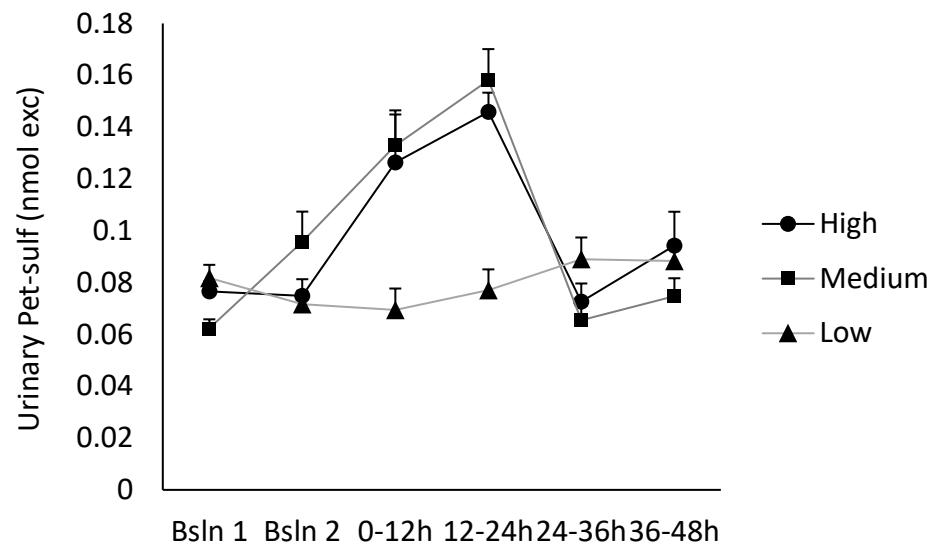
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	$0.12 \pm 0.04^{\text{B}}$	$0.2 \pm 0.06^{\text{A}}$	$0.14 \pm 0.05^{\text{cB}}$	$0.11 \pm 0.03^{\text{bB}}$	$0.09 \pm 0.03^{\text{B}}$	$0.1 \pm 0.03^{\text{B}}$
Medium	$0.15 \pm 0.09^{\text{CD}}$	$0.24 \pm 0.1^{\text{BC}}$	$0.37 \pm 0.14^{\text{bA}}$	$0.28 \pm 0.15^{\text{aB}}$	$0.11 \pm 0.04^{\text{D}}$	$0.13 \pm 0.06^{\text{D}}$
High	$0.16 \pm 0.05^{\text{CD}}$	$0.25 \pm 0.09^{\text{BC}}$	$0.94 \pm 0.19^{\text{aA}}$	$0.3 \pm 0.07^{\text{aB}}$	$0.11 \pm 0.02^{\text{D}}$	$0.13 \pm 0.02^{\text{D}}$

Figure SI-34 – Urinary excretion of petunidin glucuronide.



	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.22 ± 0.07 ^b	0.22 ± 0.1 ^b	0.18 ± 0.06 ^c	0.17 ± 0.1 ^c	0.17 ± 0.05 ^b	0.16 ± 0.12 ^b
Medium	0.3 ± 0.1 ^{bC}	0.33 ± 0.14 ^{bC}	0.92 ± 0.24 ^{bA}	0.52 ± 0.23 ^{bB}	0.19 ± 0.08 ^{bD}	0.18 ± 0.09 ^{bD}
High	0.51 ± 0.16 ^{aC}	0.53 ± 0.18 ^{aC}	3.49 ± 0.46 ^{aA}	1.44 ± 0.2 ^{aB}	0.41 ± 0.2 ^{aD}	0.31 ± 0.12 ^{aD}

Figure SI-35 – Urinary excretion of petunidin sulfate.



	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	nd	nd	nd	nd	nd	nd
Low	0.08 ± 0.01	0.07 ± 0.01	0.07 ± 0.02 ^b	0.08 ± 0.02 ^b	0.09 ± 0.02	0.09 ± 0.02
Medium	0.06 ± 0.01 ^B	0.1 ± 0.03 ^B	0.13 ± 0.04 ^{aA}	0.16 ± 0.03 ^{aA}	0.07 ± 0.02 ^B	0.07 ± 0.02 ^B
High	0.08 ± 0.01 ^C	0.07 ± 0.02 ^C	0.13 ± 0.05 ^{aAB}	0.15 ± 0.02 ^{aA}	0.07 ± 0.02 ^c	0.09 ± 0.03 ^{BC}

Figure SI-36 – Total urinary excretion of anthocyanins over 48h. Derivatives of A) cyanidin, B) delphinidin, C) malvidin, D) peonidin, E) petunidin. Urinary excretion of anthocyanins occurred in a dose-dependent manner. Cyanidins and malvidins were primarily excreted as parent glycosides (i.e., galacosides and glucosides), while other forms were more commonly excreted as metabolites. Data shown as mean \pm SEM. Lowercase letters indicate significant differences ($p<0.05$) between doses; capital letters indicate differences between derivatives.

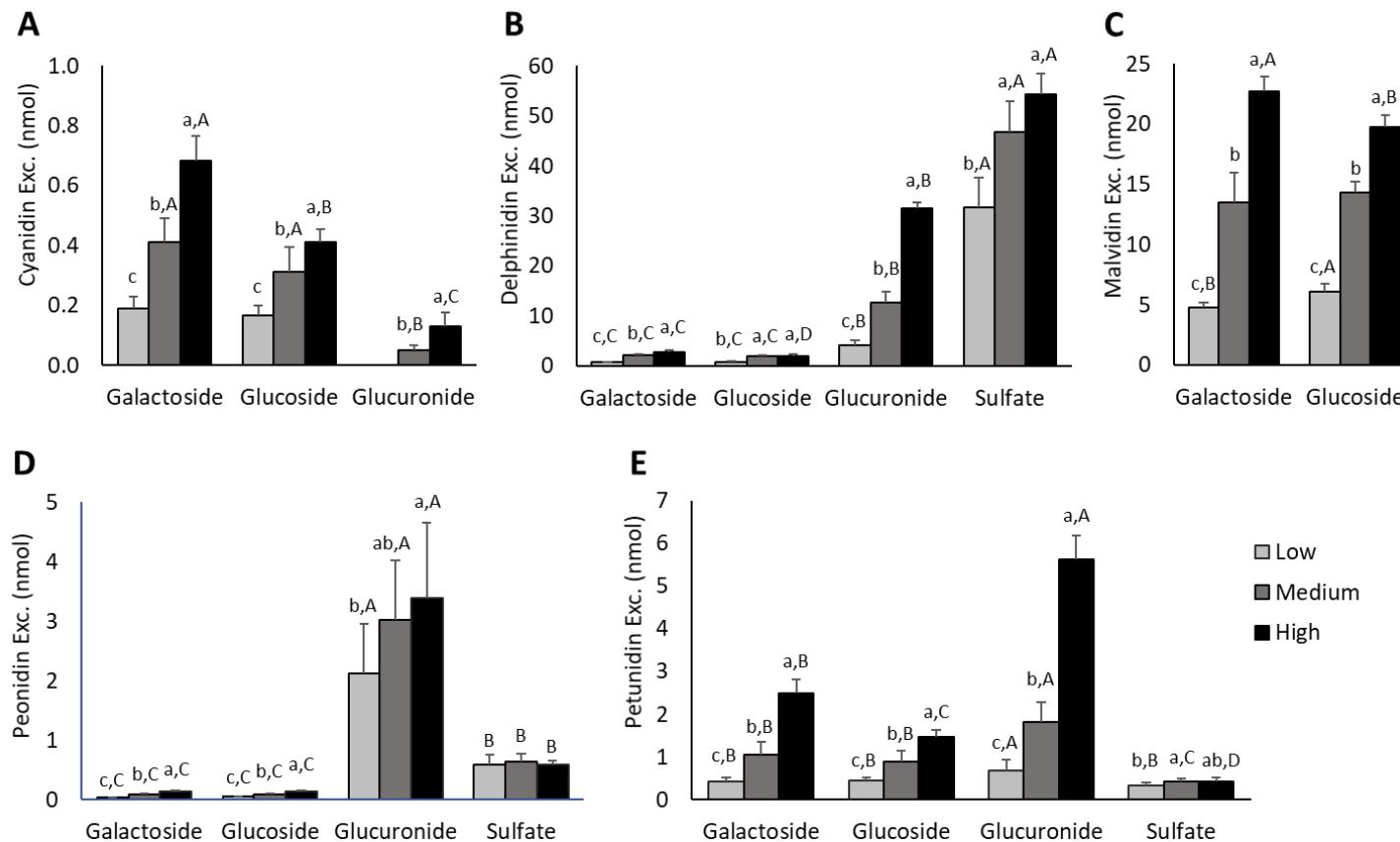
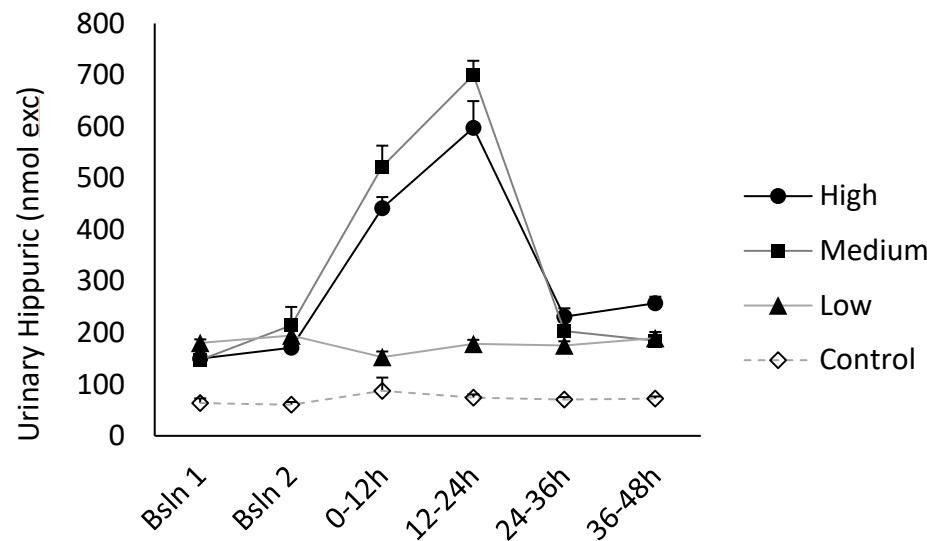
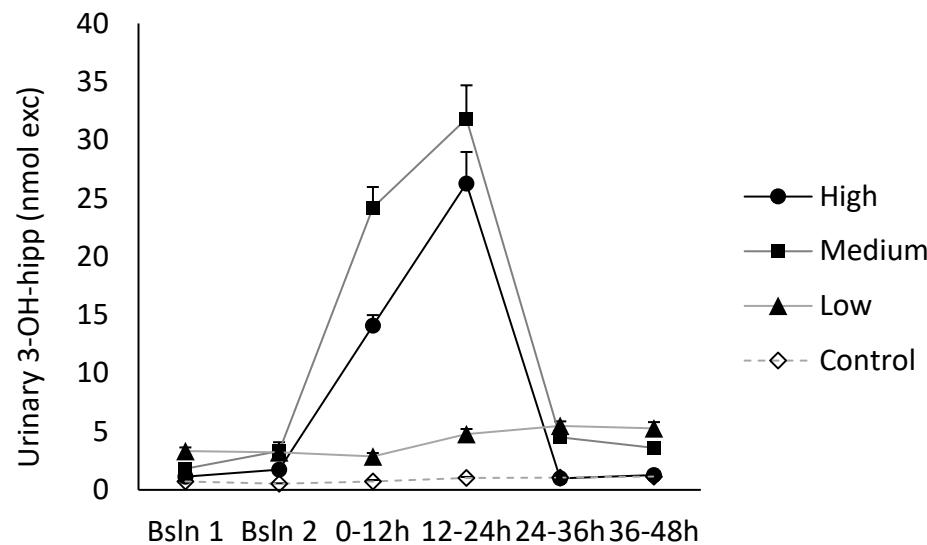


Figure SI-37 – Urinary excretion of hippuric acid.



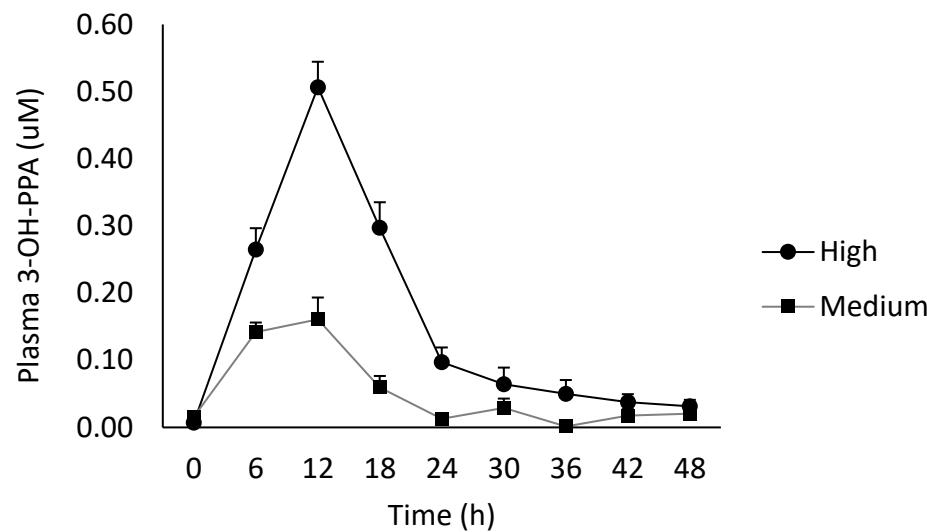
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	63.7 ± 25.2^b	60.3 ± 14.2^b	87.4 ± 72.5^c	74.2 ± 17.4^c	70.7 ± 12.7^b	72.2 ± 11.8^b
Low	180.4 ± 18.9^a	194.6 ± 28.8^a	152.7 ± 29^b	178.5 ± 22^b	175.4 ± 22.6^a	189.3 ± 34.4^a
Medium	147.1 ± 33.8^{aB}	214.7 ± 100.3^{aB}	522.2 ± 115.1^{aA}	700.1 ± 77.8^{aA}	203.5 ± 51.3^{aB}	184.9 ± 31^{aB}
High	149.9 ± 12.6^{aC}	170.8 ± 37^{aC}	441.6 ± 61.4^{aA}	597.7 ± 146.3^{aA}	231.3 ± 45.4^{aB}	257.2 ± 33.6^{aB}

Figure SI-38 – Urinary excretion of 3-hydroxy hippuric acid.



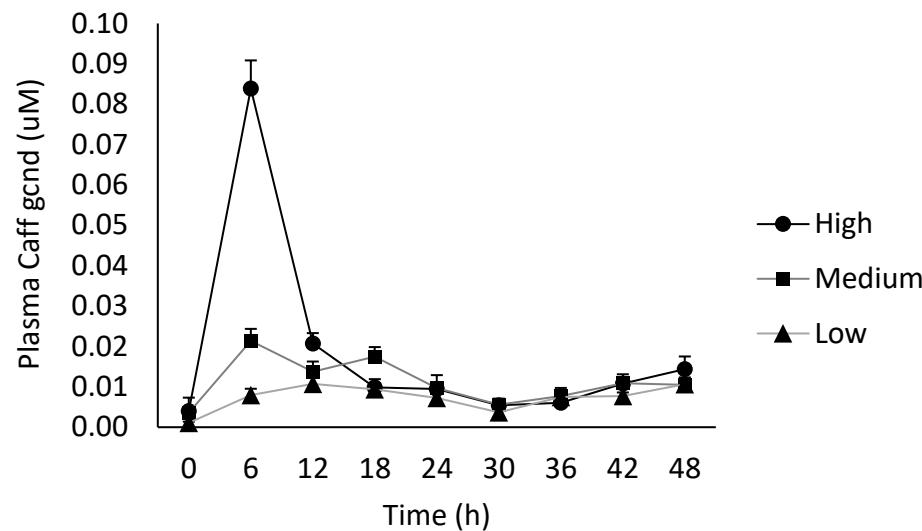
	Bsln 1	Bsln 2	0-12h	12-24h	24-36h	36-48h
Control	$0.71 \pm 0.2^{\text{cB}}$	$0.53 \pm 0.1^{\text{cB}}$	$0.71 \pm 0.38^{\text{dB}}$	$1.03 \pm 0.22^{\text{cA}}$	$1.06 \pm 0.39^{\text{bA}}$	$1.14 \pm 0.3^{\text{bA}}$
Low	$3.32 \pm 0.9^{\text{aBC}}$	$3.22 \pm 0.88^{\text{aBC}}$	$2.87 \pm 0.77^{\text{cC}}$	$4.78 \pm 1.25^{\text{bABC}}$	$5.49 \pm 1.11^{\text{aA}}$	$5.29 \pm 1.48^{\text{aAB}}$
Medium	$1.81 \pm 0.5^{\text{bC}}$	$3.32 \pm 2.18^{\text{aBC}}$	$24.22 \pm 4.97^{\text{aA}}$	$31.82 \pm 8.13^{\text{aA}}$	$4.52 \pm 1.59^{\text{aB}}$	$3.6 \pm 1.07^{\text{aBC}}$
High	$1.12 \pm 0.24^{\text{bC}}$	$1.72 \pm 0.78^{\text{bC}}$	$14.07 \pm 2.59^{\text{bB}}$	$26.28 \pm 7.62^{\text{aA}}$	$0.99 \pm 0.42^{\text{bC}}$	$1.27 \pm 0.68^{\text{bC}}$

Figure SI-39 – Plasma 3-hydroxyphenyl propionic acid.



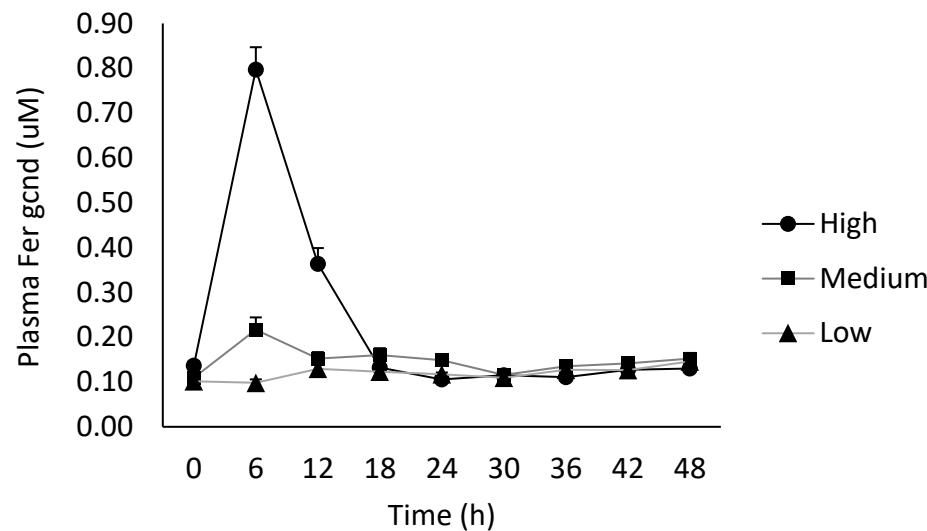
	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	nd	nd	nd	nd	nd	nd	nd	nd	nd
Low	nd	nd	nd	nd	nd	nd	nd	nd	nd
Medium	0.007 ± 0.012 ^{BC}	0.142 ± 0.037 ^{bA}	0.161 ± 0.092 ^{bA}	0.05 ± 0.042 ^{bAB}	0.008 ± 0.01 ^{BC}	0.029 ± 0.024 ^{bAB}	0.001 ± 0.002 ^C	0.018 ± 0.019 ^{BC}	0.02 ± 0.025 ^{BC}
High	0.004 ± 0.007 ^D	0.265 ± 0.09 ^{aAB}	0.507 ± 0.107 ^{aA}	0.297 ± 0.107 ^{aAB}	0.097 ± 0.062 ^{BC}	0.065 ± 0.069 ^{aCD}	0.05 ± 0.058 ^{CD}	0.037 ± 0.034 ^{CD}	0.032 ± 0.025 ^{CD}

Figure SI-40 – Plasma caffeic acid glucuronide.



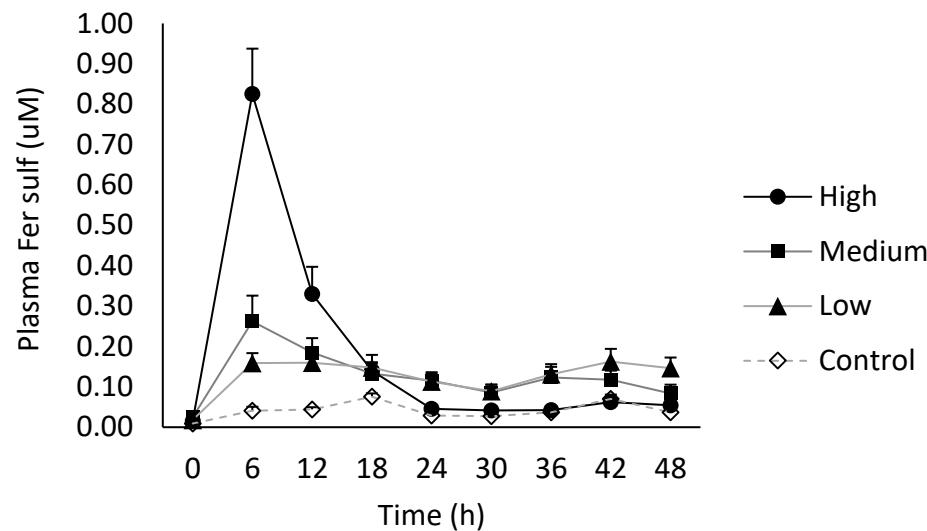
	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	nd	nd	nd	nd	nd	nd	nd	nd	nd
Low	0.0003 ± 0.0005 ^{bB}	0.0079 ± 0.0039 ^{cAB}	0.0107 ± 0.007 ^A	0.0094 ± 0.0039 ^A	0.0073 ± 0.0036 ^A	0.0037 ± 0.0024 ^{AB}	0.0075 ± 0.0059 ^{AB}	0.0077 ± 0.0024 ^A	0.0107 ± 0.0044 ^A
Medium	0.0009 ± 0.0018 ^{ab}	0.0214 ± 0.0079 ^{bA}	0.0137 ± 0.0072 ^{AB}	0.0175 ± 0.0067 ^A	0.0097 ± 0.0037 ^{AB}	0.0056 ± 0.0031 ^B	0.0077 ± 0.0031 ^{AB}	0.0109 ± 0.0042 ^{AB}	0.0105 ± 0.0039 ^{AB}
High	0.0015 ± 0.0037 ^{aE}	0.0839 ± 0.0197 ^{aA}	0.0207 ± 0.0073 ^B	0.0098 ± 0.0059 ^{BCD}	0.0095 ± 0.0096 ^{BCDE}	0.0054 ± 0.0044 ^{DE}	0.006 ± 0.0031 ^{CDE}	0.0109 ± 0.0064 ^{BCD}	0.0143 ± 0.0084 ^{BC}

Figure SI-41 – Plasma ferulic acid glucuronide.



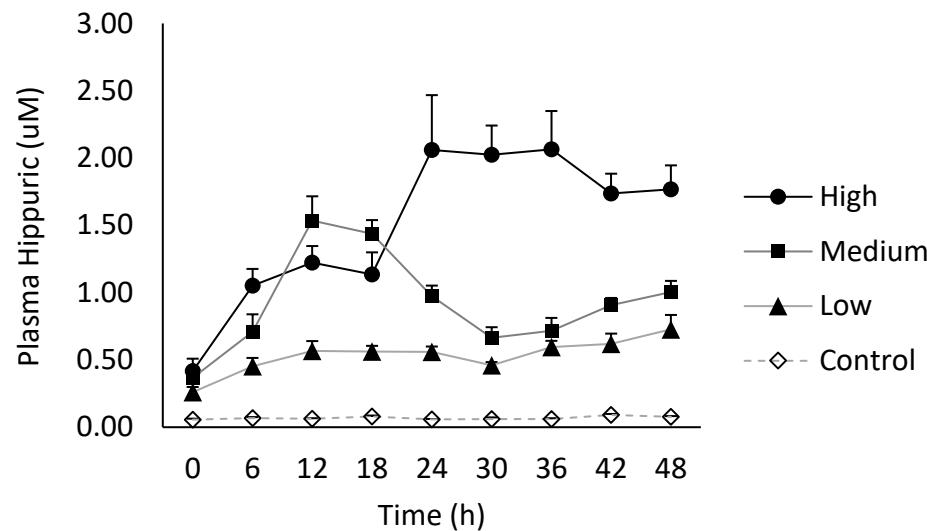
	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	nd	nd	nd	nd	nd	nd	nd	nd	nd
Low	0.1 ± 0.02 ^b	0.1 ± 0.02 ^c	0.13 ± 0.04 ^b	0.12 ± 0.01	0.12 ± 0.01 ^{ab}	0.11 ± 0.02	0.13 ± 0.02	0.13 ± 0.02	0.15 ± 0.03
Medium	0.11 ± 0.02 ^{abD}	0.22 ± 0.07 ^{bA}	0.15 ± 0.04 ^{bBC}	0.16 ± 0.04 ^B	0.15 ± 0.04 ^{bBC}	0.12 ± 0.02 ^{CD}	0.14 ± 0.02 ^{BCD}	0.14 ± 0.02 ^{BCD}	0.15 ± 0.03 ^{BCD}
High	0.14 ± 0.03 ^{aC}	0.8 ± 0.14 ^{aA}	0.36 ± 0.1 ^{aB}	0.13 ± 0.03 ^c	0.11 ± 0.01 ^{aC}	0.11 ± 0.03 ^c	0.11 ± 0.02 ^c	0.13 ± 0.02 ^c	0.13 ± 0.03 ^c

Figure SI-42 – Plasma ferulic acid sulfate.



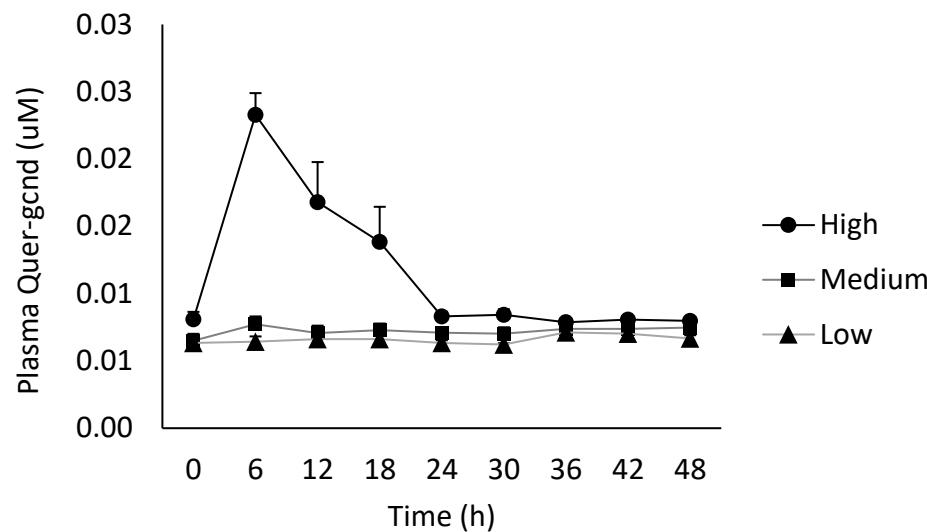
	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	0.007 ± 0.009 ^c	0.041 ± 0.026 ^{cAB}	0.044 ± 0.015 ^{bAB}	0.075 ± 0.022 ^A	0.029 ± 0.028 ^{bB}	0.027 ± 0.031 ^{cBC}	0.037 ± 0.02 ^{cAB}	0.07 ± 0.03 ^A	0.037 ± 0.019 ^{bAB}
Low	0.013 ± 0.013 ^b	0.159 ± 0.061 ^{bA}	0.159 ± 0.032 ^{aA}	0.148 ± 0.034 ^A	0.113 ± 0.051 ^{aA}	0.089 ± 0.044 ^{aA}	0.131 ± 0.066 ^{aA}	0.162 ± 0.084 ^A	0.146 ± 0.066 ^{aA}
Medium	0.015 ± 0.023 ^b	0.262 ± 0.169 ^{bA}	0.185 ± 0.102 ^{aA}	0.133 ± 0.071 ^A	0.116 ± 0.058 ^{aA}	0.086 ± 0.055 ^{abA}	0.123 ± 0.071 ^{abA}	0.117 ± 0.064 ^A	0.083 ± 0.058 ^{abAB}
High	0.011 ± 0.02 ^e	0.825 ± 0.317 ^{aA}	0.33 ± 0.19 ^{aAB}	0.14 ± 0.111 ^{BC}	0.046 ± 0.027 ^{abCD}	0.042 ± 0.027 ^{bcD}	0.042 ± 0.029 ^{bcD}	0.062 ± 0.017 ^{CD}	0.054 ± 0.032 ^{bCD}

Figure SI-43 – Plasma hippuric acid.



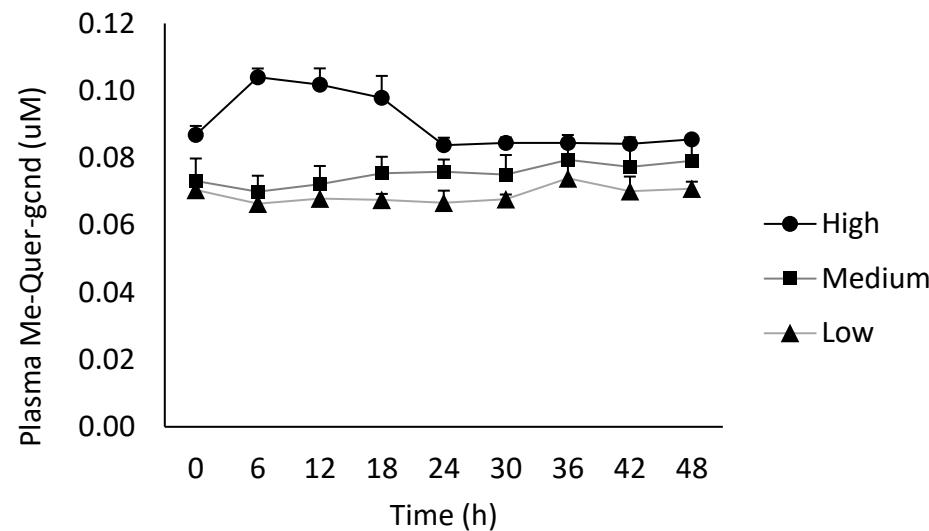
	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	0.06 ± 0.02 ^b	0.07 ± 0.02 ^c	0.06 ± 0.01 ^c	0.08 ± 0.02 ^c	0.06 ± 0.01 ^d	0.06 ± 0.03 ^c	0.06 ± 0.02 ^c	0.09 ± 0.02 ^c	0.08 ± 0.02 ^c
Low	0.26 ± 0.1 ^{aB}	0.45 ± 0.15 ^{bAB}	0.57 ± 0.18 ^{bA}	0.56 ± 0.11 ^{bA}	0.56 ± 0.11 ^{cA}	0.46 ± 0.07 ^{bA}	0.6 ± 0.12 ^{bA}	0.62 ± 0.2 ^{bA}	0.73 ± 0.28 ^{bA}
Medium	0.37 ± 0.18 ^{aC}	0.71 ± 0.34 ^{abB}	1.54 ± 0.51 ^{aA}	1.44 ± 0.29 ^{aA}	0.97 ± 0.23 ^{bAB}	0.67 ± 0.22 ^{bbB}	0.72 ± 0.27 ^{bbB}	0.91 ± 0.15 ^{bAB}	1.00 ± 0.22 ^{bAB}
High	0.42 ± 0.26 ^{aC}	1.05 ± 0.35 ^{aB}	1.22 ± 0.35 ^{aAB}	1.14 ± 0.46 ^{aB}	2.06 ± 1.15 ^{aAB}	2.02 ± 0.61 ^{aAB}	2.06 ± 0.81 ^{aA}	1.74 ± 0.41 ^{aAB}	1.77 ± 0.5 ^{aAB}

Figure SI-44 – Plasma quercetin glucuronide.



	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	nd	nd	nd	nd	nd	nd	nd	nd	nd
Low	0.0063 ± 0.0006	0.0064 ± 0.0008 ^b	0.0066 ± 0.0004 ^b	0.0066 ± 0.0004 ^b	0.0063 ± 0.0004 ^b	0.0062 ± 0.0002	0.0071 ± 0.0008	0.007 ± 0.0009	0.0067 ± 0.0005
Medium	0.0057 ± 0.0026	0.0077 ± 0.0015 ^b	0.0071 ± 0.0016 ^b	0.0073 ± 0.0014 ^b	0.0071 ± 0.0011 ^b	0.007 ± 0.0014	0.0074 ± 0.0012	0.0074 ± 0.0015	0.0075 ± 0.0018
High	0.0061 ± 0.0039 ^D	0.0233 ± 0.0046 ^{aA}	0.0168 ± 0.0084 ^{ab}	0.0138 ± 0.0074 ^{aBC}	0.0083 ± 0.0009 ^{aCD}	0.0084 ± 0.0012 ^D	0.0079 ± 0.0005 ^D	0.0081 ± 0.0004 ^D	0.008 ± 0.0003 ^D

Figure SI-45 – Plasma methyl-quercetin glucuronide.



	0h	6h	12h	18h	24h	30h	36h	42h	48h
Control	nd	nd	nd	nd	nd	nd	nd	nd	nd
Low	0.053 ± 0.036 ^b	0.066 ± 0.007 ^b	0.068 ± 0.008 ^b	0.067 ± 0.004 ^b	0.067 ± 0.007 ^b	0.068 ± 0.003 ^b	0.074 ± 0.009	0.07 ± 0.01	0.071 ± 0.005
Medium	0.055 ± 0.037 ^b	0.07 ± 0.013 ^b	0.072 ± 0.015 ^b	0.075 ± 0.014 ^b	0.076 ± 0.01 ^{ab}	0.075 ± 0.016 ^{ab}	0.079 ± 0.015	0.077 ± 0.018	0.079 ± 0.018
High	0.087 ± 0.008 ^{ac}	0.104 ± 0.007 ^{aA}	0.102 ± 0.014 ^{aAB}	0.098 ± 0.018 ^{aABC}	0.084 ± 0.006 ^{aABC}	0.084 ± 0.004 ^{aBC}	0.084 ± 0.007 ^c	0.084 ± 0.005 ^c	0.086 ± 0.003 ^c