

Table S1. Relative concentrations via average peak areas of the identified polyphenols from beech wood tissue extracts. Results are indicated as mean \pm std. deviation (n=2). Different superscript letters for a given compound indicate significant differences between tissues at p < 0.05 level. -: not detected, tr: traces

Peak	Compound name	a	b	c	d	e	f	g	h
1	Monogalloyl glucose	44.2 \pm 16.9 ^a	42.2 \pm 13.1 ^a	39.4 \pm 5.6 ^a	31.7 \pm 0.6 ^a	35.9 \pm 7.7 ^a	152.4 \pm 20.5 ^b	27.0 \pm 6.6 ^a	-
2	Monogalloyl glucose	19.5 \pm 3.2 ^a	29.4 \pm 16.9 ^a	30.1 \pm 18.6 ^a	43.6 \pm 10.2 ^a	19.8 \pm 8.2 ^a	708.6 \pm 68.0 ^b	28.5 \pm 12.0 ^a	-
3	Procyanidin C trimer	199.7 \pm 2.3 ^a	227.2 \pm 65.1 ^a	122.1 \pm 0.8 ^a	116.7 \pm 31.6 ^a	160.8 \pm 18.6 ^a	387.0 \pm 231.3 ^a	75.6 \pm 23.5 ^a	-
4	Procyanidin C trimer	343.9 \pm 44.3 ^a	374.2 \pm 164.0 ^a	219.8 \pm 6.4 ^{ab}	184.7 \pm 22.8 ^{ab}	178.5 \pm 6.7 ^{ab}	315.8 \pm 65.8 ^{ab}	39.5 \pm 33.2 ^b	-
5	Unknown	28.4 \pm 1.8 ^a	22.5 \pm 2.3 ^a	33.1 \pm 5.5 ^a	27.2 \pm 10.0 ^a	31.8 \pm 3.7 ^a	210.1 \pm 14.0 ^b	12.8 \pm 1.6 ^a	-
6	Monogalloyl glucose	331.9 \pm 34.6 ^{ab}	461.3 \pm 138.9 ^{ab}	336. \pm 15.6 ^{ab}	317.9 \pm 39.4 ^{ab}	327.2 \pm 11.3 ^{ab}	679.6 \pm 213.1 ^b	67.6 \pm 53.2 ^a	-
7	Procyanidin C trimer	89.5 \pm 19.6 ^a	122.9 \pm 93.7 ^a	58.7 \pm 20.8 ^a	69.2 \pm 16.6 ^a	85.8 \pm 6.6 ^a	341.5 \pm 69.9 ^b	15.5 \pm 0.7 ^a	-
8	Unknown	37.8 \pm 4.1 ^a	21.1 \pm 1.7 ^a	15.7 \pm 2.8 ^a	22.2 \pm 4.2 ^a	tr	102.9 \pm 59.4 ^a	24.9 \pm 0.1 ^a	-
9	Monogalloyl glucose	71.6 \pm 6.8 ^a	90.3 \pm 19.4 ^a	87.0 \pm 1.7 ^a	91.9 \pm 22.2 ^a	71.9 \pm 1.2 ^a	100.7 \pm 24.9 ^a	19.2 \pm 2.1 ^a	-
10	Unknown	46.4 \pm 33.1 ^a	59.9 \pm 27.5 ^a	36.5 \pm 25.5 ^a	49.7 \pm 23.1 ^a	26.2 \pm 8.8 ^a	114.6 \pm 34.5 ^a	-	-
11	Vanillic acid-O-hexoside	727.6 \pm 112.6 ^b	807.3 \pm 183.4 ^b	711.4 \pm 47.2 ^b	629.9 \pm 52.5 ^b	678.2 \pm 35.3 ^b	1849.5 \pm 210 ^c	102.1 \pm 34.0 ^a	-
12	Unknown	45.2 \pm 4.4 ^a	77.0 \pm 12.5 ^a	68.3 \pm 5.5 ^a	71.0 \pm 17.2 ^a	92.9 \pm 3.4 ^a	178.8 \pm 38.8 ^b	27.7 \pm 0.5 ^a	-
13	Unknown	120.7 \pm 1.8 ^a	107.0 \pm 16.0 ^a	152.8 \pm 4.9 ^a	150.8 \pm 45.0 ^a	153.3 \pm 14.9 ^a	218.1 \pm 53.6 ^a	-	-
14	(epi)catechin-O-hexoside	14.3 \pm 1.6 ^a	17.6 \pm 2.7 ^a	10.7 \pm 1.4 ^a	15.2 \pm 2.1 ^a	13.9 \pm 1.2 ^a	46.2 \pm 6.0 ^b	17.6 \pm 5.2 ^a	-
15	Unknown	tr	21.1 \pm 5.3 ^a	tr	11.0 \pm 1.2 ^a	10.2 \pm 1.4 ^a	72.6 \pm 76.8 ^a	11.9 \pm 2.1 ^a	-
16	Syringic acid-O-hexoside	2203.5 \pm 748.8 ^a	2962.5 \pm 1587.5 ^a	2941.0 \pm 462.4 ^a	2745.0 \pm 472.3 ^a	3014.0 \pm 357.8 ^a	7952.0 \pm 199.4 ^b	410.1 \pm 215.1 ^a	-
17	(epi)catechin-O-hexoside	tr	12.5 \pm 1.2 ^a	tr	tr	tr	10.2 \pm 1.4 ^a	tr	-
18	Unknown	-	-	-	-	-	-	-	19.6 \pm 3.1
19	(epi)catechin-O-hexoside	28.2 \pm 2.1 ^a	16.7 \pm 7.9 ^a	tr	tr	tr	292.1 \pm 104.7 ^b	15.8 \pm 3.9 ^a	-
20	Syringic acid-O-hexoside	15.2 \pm 2.2 ^a	12.1 \pm 1.9 ^a	tr	tr	tr	53.4 \pm 44.5 ^a	tr	-
21	Procyanidin B dimer	tr	tr	tr	tr	tr	tr	10.8 \pm 0.9 ^a	12.7 \pm 2.1 ^a
22	Dihydro-coumaric acid-O-hexoside	17.0 \pm 5.0 ^a	34.5 \pm 30.6 ^a	18.7 \pm 2.1 ^a	28.1 \pm 5.3 ^a	28.8 \pm 9.0 ^a	614.9 \pm 124.2 ^b	23.2 \pm 6.1 ^a	10.5 \pm 1.9 ^a
23	Procyanidin B dimer	569.0 \pm 89.3 ^{bc}	914.4 \pm 296.4 ^{bc}	1091.6 \pm 214.1 ^c	1116.0 \pm 168.3 ^c	1187.5 \pm 128.0 ^c	2942.0 \pm 83.4 ^d	55.6 \pm 1.5 ^a	tr
24	Unknown	tr	tr	tr	tr	tr	35.4 \pm 1.3 ^a	38.8 \pm 2.5 ^a	67.0 \pm 9.9 ^a
25	Procyanidin B dimer	22.7 \pm 10.5 ^a	49.8 \pm 2.2 ^a	23.6 \pm 13.2 ^a	24.1 \pm 19.4 ^a	23.9 \pm 13.6 ^a	697.5 \pm 48.9 ^b	23.9 \pm 2.6 ^a	-
26	(+)-Catechin	846.2 \pm 56.3 ^{ab}	1869.0 \pm 581.2 ^{ab}	1989.0 \pm 349.3 ^b	1759.5 \pm 505.6 ^{ab}	1748.0 \pm 137.2 ^{ab}	6232.0 \pm 581.2 ^c	334.3 \pm 119.8 ^a	-
27	Procyanidin C trimer	548.0 \pm 371.4 ^a	358.8 \pm 137.8 ^a	475.7 \pm 39.5 ^a	417.1 \pm 87.9 ^a	358.7 \pm 54.2 ^a	178.1 \pm 33.6 ^a	51.1 \pm 34.0 ^a	17.0 \pm 2.0 ^a
28	Coniferin isomer *	tr	tr	tr	tr	tr	tr	tr	-
29	Unknown	-	-	-	-	-	41.7 \pm 5.2 ^b	11.8 \pm 1.1 ^a	28.3 \pm 2.1 ^{ab}

64	Procyanidin dimer monogallate	108.0 ± 7.1 ^a	88.3 ± 22.6 ^a	35.9 ± 0.1 ^a	32.5 ± 5.6 ^a	50.0 ± 22.9 ^a	275.1 ± 38.7 ^b	56.5 ± 18.8 ^a tr
65	Coniferin isomer	tr	tr	tr	tr	tr	-	-
66	Taxifolin-O-hexoside	279.5 ± 31.8 ^{ab}	525.6 ± 260.8 ^b	367.6 ± 5.4 ^{ab}	394.1 ± 1.4 ^{ab}	435.5 ± 77.7 ^{ab}	614.0 ± 35.4 ^b	27.4 ± 5.7 ^a -
67	Procyanidin B dimer	54.5 ± 4.9 ^a	84.9 ± 19.1 ^a	106.4 ± 3.5 ^a	82.6 ± 5.5 ^a	86.6 ± 41.6 ^a	402.9 ± 69.7 ^b	10.2 ± 4.1 ^a -
68	Procyanidin E pentamer	tr	tr	tr	tr	tr	tr	-
69	Procyanidin dimer monogallate	10.9 ± 2.1 ^a	29.2 ± 2.4 ^a	tr	tr	tr	396.9 ± 59.3 ^b	-
70	Procyanidin D tetramer	tr	tr	tr	tr	tr	tr	-
71	Taxifolin-O-pentoside	2287.5 ± 9.2 ^c	1671.0 ± 434.2 ^{bc}	1297.0 ± 175.4 ^b	969.9 ± 114.7 ^{ab}	924.1 ± 102.8 ^{ab}	1035.5 ± 125.2 ^{ab}	21.9 ± 7.1 ^a -
72	Naringenin-C-hexoside	363.5 ± 7.8 ^b	242.0 ± 45.3 ^b	223.7 ± 23.1 ^{ab}	179.5 ± 5.4 ^{ab}	220.8 ± 131.2 ^{ab}	225.7 ± 25.8 ^{ab}	16.4 ± 1.4 ^a -
73	Procyanidin C trimer	tr	tr	tr	tr	tr	tr	-
74	Isorhamnetin-O-hexoside	-	-	-	-	-	21.2 ± 10.3 ^a	16.2 ± 3.5 ^a -
75	Taxifolin-O-pentoside	381.6 ± 34.1 ^b	597.0 ± 135.8 ^{bc}	721.0 ± 16.8 ^c	681.0 ± 57.6 ^c	710.0 ± 46.0 ^c	736.8 ± 112.8 ^c	31.0 ± 24.6 ^a -
76	Naringenin-C-hexoside	48.9 ± 3.6 ^a	78.5 ± 37.8 ^{ab}	110.5 ± 6.4 ^{ab}	91.1 ± 9.6 ^{ab}	90.0 ± 12.5 ^{ab}	120.8 ± 3.8 ^b	tr tr
77	Unknown	125.5 ± 15.3 ^a	163.0 ± 94.7 ^a	84.9 ± 5.3 ^a	89.7 ± 1.9 ^a	89.8 ± 15.4 ^a	99.3 ± 11.2 ^a	tr tr
78	Taxifolin-O-hexoside	93.5 ± 3.5 ^b	94.0 ± 15.6 ^b	44.5 ± 6.8 ^a	49.9 ± 13.9 ^a	54.4 ± 5.1 ^a	41.6 ± 5.4 ^a	-
79	Unknown	21.0 ± 9.9 ^a	tr	21.9 ± 14.5 ^a	22.0 ± 7.1 ^a	25.5 ± 8.1 ^a	160.5 ± 38.9 ^b	-
80	Naringenin-C-hexoside	tr	tr	tr	tr	tr	tr	-
81	Unknown-O-hexoside	114.6 ± 12.1 ^{ab}	83.4 ± 11.0 ^a	156.5 ± 14.8 ^{abc}	106.1 ± 30.9 ^{ab}	102.7 ± 10.4 ^{ab}	235.1 ± 27.5 ^c	193.9 ± 47.9 ^{bc} -
82	Unknown	tr	tr	tr	tr	tr	tr	-
83	Taxifolin	-	-	-	-	-	11.5 ± 1.6 ^a	139.4 ± 182.5 ^a 666.1 ± 31.2 ^b
84	Unknown	373.3 ± 24.3 ^b	336.2 ± 45.7 ^b	557.7 ± 48.0 ^c	395.0 ± 81.5 ^b	391.9 ± 13.6 ^b	459.2 ± 28.4 ^{bc}	98.3 ± 6.3 ^a tr
85	(epi)catechin monogallate	52.0 ± 24.4 ^a	66.0 ± 32.5 ^a	75.7 ± 26.6 ^a	63.0 ± 20.5 ^a	75.7 ± 7.8 ^a	601.5 ± 92.6 ^b	244.4 ± 185.7 ^a 62.2 ± 10.1 ^a
86	Isorhamnetin-O-hexoside	-	-	-	-	-	tr	tr -
87	Taxifolin-O-pentoside	184.6 ± 5.0 ^{ab}	202.5 ± 30.3 ^{ab}	159.2 ± 18.7 ^{ab}	136.3 ± 1.1 ^{ab}	138.6 ± 19.6 ^{ab}	232.3 ± 70.9 ^b	61.1 ± 63.1 ^a -
88	Unknown	-	-	-	-	-	-	507.0 ± 104.6 ^a 495.0 ± 2.5 ^a
89	Unknown	286.8 ± 32.0 ^a	346.6 ± 77.6 ^a	365.9 ± 18.3 ^a	312.9 ± 54.0 ^a	298.9 ± 72.7 ^a	909.0 ± 31.1 ^b	tr -
90	Unknown	165.8 ± 1.8 ^{abc}	149.1 ± 5.2 ^{ac}	341.2 ± 5.0 ^b	323.3 ± 103.5 ^{ab}	302.5 ± 13.0 ^{ab}	631.5 ± 51.6 ^d	43.9 ± 39.6 ^c -
91	Isorhamnetin	-	-	-	-	-	19.7 ± 7.1 ^a	112.6 ± 52.0 ^a 35.8 ± 22.2 ^a
92	Unknown	72.0 ± 19.1 ^a	121.9 ± 31.3 ^a	171.0 ± 35.6 ^a	128.3 ± 18.6 ^a	139.1 ± 56.7 ^a	421.7 ± 83.2 ^b	109.1 ± 28.5 ^a 15.6 ± 2.7 ^a
93	Taxifolin-O-pentoside	223.3 ± 15.9 ^b	229.8 ± 54.9 ^b	197.2 ± 8.0 ^b	152.6 ± 18.0 ^{ab}	171.4 ± 28.3 ^b	189.7 ± 45.5 ^b	40.5 ± 6.8 ^a -
94	Quercetin-O-hexoside	13.1 ± 0.9 ^a	21.1 ± 4.2 ^a	13.2 ± 3.6 ^a	15.1 ± 4.1 ^a	14.9 ± 5.2 ^a	27.7 ± 8.1 ^a	-
95	Sinapaldehyde	13.7 ± 2.6 ^a	11.5 ± 4.2 ^a	tr	tr	tr	38.6 ± 11.2 ^a	86.6 ± 17.5 ^a 52.6 ± 17.5 ^a
96	Unknown	tr	tr	tr	tr	tr	tr	-
97	Unknown	36.5 ± 6.9 ^a	28.6 ± 17.9 ^a	22.9 ± 6.4 ^a	14.7 ± 3.2 ^a	23.2 ± 2.4 ^a	115.2 ± 0.4 ^b	-
98	Unknown	35.7 ± 22.8 ^a	21.7 ± 1.9 ^a	27.6 ± 4.1 ^a	24.0 ± 3.2 ^a	20.8 ± 11.7 ^a	43.8 ± 17.9 ^a	-

99	Unknown	-	-	-	-	-	-	231.6 ± 8.6 ^a	139.1 ± 110.7 ^a
100	Unknown	30.8 ± 1.6 ^a	40.2 ± 13.5 ^a	53.3 ± 5.0 ^a	46.2 ± 19.8 ^a	51.0 ± 4.5 ^a	236.2 ± 53.6 ^b	28.6 ± 9.2 ^a	-
101	Isorhamnetin- <i>O</i> -pentoside	10.8 ± 1.8 ^a	12.9 ± 6.3 ^{ab}	23.3 ± 2.0 ^{ab}	15.4 ± 5.7 ^{ab}	21.8 ± 21 ^{ab}	64.1 ± 4.4 ^b	21.3 ± 26.1 ^{ab}	-
102	Unknown	199.0 ± 12.7 ^b	199.0 ± 28.3 ^b	68.8 ± 16.2 ^a	42.6 ± 10.9 ^a	50.3 ± 7.3 ^a	34.0 ± 16.1 ^a	26.1 ± 8.2 ^a	52.2 ± 47.3 ^a
103	Unknown	tr	tr	17.7 ± 6.1 ^{ab}	19.0 ± 4.4 ^{ab}	16.5 ± 2.8 ^a	145.5 ± 62.5 ^b	tr	-
104	Unknown	tr	tr	tr	tr	tr	tr	-	-
105	Unknown	23.7 ± 7.3 ^a	15.1 ± 2.3 ^a	tr	tr	tr	92.0 ± 10.3 ^a	203.8 ± 148.8 ^a	-
106	Unknown	30.6 ± 3.8 ^a	54.4 ± 23.3 ^a	45.2 ± 3.7 ^a	42.7 ± 1.8 ^a	43.1 ± 3.3 ^a	57.5 ± 19.4 ^a	21.0 ± 5.6 ^a	19.7 ± 13.1 ^a
107	(epi)afzelechin- <i>O</i> -hexoside	26.5 ± 12.4 ^a	23.9 ± 5.7 ^a	34.6 ± 3.7 ^a	16.1 ± 6.0 ^a	25.3 ± 11.7 ^a	28.0 ± 3.8 ^a	-	-
108	Isorhamnetin- <i>O</i> -hexoside	24.0 ± 11.4 ^a	28.5 ± 3.7 ^a	-tr	17.0 ± 4.1 ^a	-	37.6 ± 7.2 ^a	68.3 ± 16.8 ^a	tr
109	Unknown	-	tr	tr	-	tr	31.5 ± 9.1 ^a	49.0 ± 1.4 ^a	78.8 ± 3.7 ^a
110	Unknown	29.0 ± 1.4 ^a	39.5 ± 26.2 ^a	tr	-	14.7 ± 3.8 ^a	37.4 ± 10.3 ^a	15.0 ± 4.2 ^a	10.1 ± 2.9 ^a
111	Unknown	tr	tr	tr	tr	tr	tr	-	-
112	Unknown	10.5 ± 4.6 ^a	tr	11.7 ± 3.9 ^a	tr	tr	63.4 ± 41.9 ^a	75.9 ± 1.9 ^a	41.0 ± 6.7 ^a
113	Unknown	15.9 ± 7.6 ^a	21.0 ± 12.4 ^a	-	10.9 ± 3.9 ^a	10.9 ± 1.7 ^a	234.5 ± 248.2 ^a	185. ± 87.7 ^a	50.1 ± 54.7 ^a
114	Unknown	21.9 ± 1.8 ^a	18.6 ± 3.1 ^a	13.7 ± 2.6 ^a	12.9 ± 2.5 ^a	16.2 ± 2.4 ^a	338.0 ± 59.4 ^b	465.5 ± 166.2 ^b	34.0 ± 24.1 ^a
115	Unknown	-	12.9 ± 2.1 ^a	-	-	15.1 ± 3.5 ^a	155.0 ± 144.2 ^a	155.0 ± 21.2 ^a	43.2 ± 6.8 ^a
116	Unknown	58.9 ± 10.2 ^a	73.0 ± 35.7 ^a	63.1 ± 5.4 ^a	67.6 ± 15.8 ^a	55.9 ± 8.1 ^a	63.9 ± 17.5 ^a	61.3 ± 9.4 ^a	33.9 ± 8.6 ^a
117	Unknown	-	tr	-	-	-	59.6 ± 16.1 ^a	94.0 ± 11.3 ^a	72.0 ± 52.4 ^a
118	Unknown	tr	tr	tr	tr	tr	tr	-	-
119	Naringenin	-	-	-	-	-	80.2 ± 66.1 ^a	100.5 ± 51.6 ^a	173.1 ± 38.2 ^a
120	Unknown	197.5 ± 13.3 ^a	200.3 ± 166.8 ^a	33.9 ± 10.3 ^a	20.5 ± 11.3 ^a	32.3 ± 0.2 ^a	179.2 ± 29.4 ^a	119.2 ± 29.2 ^a	39.7 ± 15.6 ^a
121	Unknown	56.0 ± 1.4 ^b	46.9 ± 24.4 ^{ab}	13.3 ± 1.1 ^a	14.5 ± 4.1 ^a	17.9 ± 8.3 ^{ab}	42.9 ± 10.1 ^{ab}	48.3 ± 5.7 ^{ab}	25.7 ± 1.0 ^{ab}
122	Unknown	38.0 ± 4.5 ^a	58.2 ± 23.9 ^{ab}	30.0 ± 2.8 ^a	23.0 ± 11.7 ^a	20.5 ± 5.9 ^a	174.7 ± 91.2 ^b	47.9 ± 13.3 ^{ab}	15.2 ± 0.3 ^a
123	Unknown	-	-	-	-	-	171.1 ± 177.5 ^a	tr	12.7 ± 4.1 ^a
124	Unknown	113.2 ± 18.6 ^a	114.7 ± 15.1 ^a	86.7 ± 9.1 ^a	111.8 ± 13.1 ^a	107.0 ± 12.6 ^a	54.5 ± 7.8 ^a	127.5 ± 6.4 ^a	62.5 ± 71.4 ^a
125	Unknown	14.2 ± 2.2 ^a	13.6 ± 2.1 ^a	16.7 ± 1.1 ^a	24.5 ± 2.1 ^{ab}	10.3 ± 4.3 ^a	101.4 ± 39.5 ^b	21.8 ± 0.9 ^{ab}	11.0 ± 0.8 ^a