

Table S1. UPLC-ESI-qTOF-MS/MS and HPLC-DAD identification of hydrolyzable tannins in the extract of cornelian cherry stones – other ions.

Peak No.	t_R (min)	MS ² other ions (m/z)	Compound name (isomer)
1	1.57	169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Mono- <i>O</i> -galloyl- β -D-glucose (1)
2	1.78	125 [GA – CO ₂ (– 44) – H] [–]	Gallic acid
3	1.86	301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Gemin D (1)
4	2.04	331 [M – gall (– 152) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Di- <i>O</i> -galloyl- β -D-glucose (1)
5	2.25	169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Mono- <i>O</i> -galloyl- β -D-glucose (2)
6	2.45	301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Gemin D (2)
7	2.75	331 [M – gall (– 152) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Di- <i>O</i> -galloyl- β -D-glucose (2)
8	3.22	1247 [M – gall – H ₂ O (– 170) – H] [–] , 1115 [M – HHDP (– 302) – H] [–] , 783 [oen C/M – HHDP – gall – glc = gm D (– 634) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall – H ₂ O (– 170) – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Camptothin A (1)
9	3.31	331 [M-gall (– 152) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Di- <i>O</i> -galloyl- β -D-glucose (3)
10	3.64	1247 [M – gall – H ₂ O (– 170) – H] [–] , 1115 [M – HHDP (– 302) – H] [–] , 783 [oen C = M – HHDP – gall – glc = gm D (– 634) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall – H ₂ O (– 170) – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Camptothin A (2)
11	3.87	909 [M – CO ₂ (– 44) – H] [–] , 785 [tell I – H] [–] , 783 [M – gall – H ₂ O – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Isorugosin B
12	4.11	2031 [M – gall – H ₂ O (– 170) – H] [–] , 1247 [M – irg B (– 954) – H] [–] , 785 [tell I – H] [–] , 783 [oen C – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall – H ₂ O (– 170) – H] [–] , 483 [di-gall-glc – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin F (1)
13	4.21	331 [M – gall (– 152) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Di- <i>O</i> -galloyl- β -D-glucose (4)
14	4.27	301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tellimagrandin I (1)
15	4.36	2031 [M – gall – H ₂ O (– 170) – H] [–] , 1247 [M – irg B (– 954) – H] [–] , 785 [tell I – H] [–] , 783 [oen C – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall – H ₂ O (– 170) – H] [–] , 483 [di-gall-glc – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin F (2)

16	4.49	465 [M – gall – H ₂ O (– 170) – H] [–] , 313 [M – 2 x gall – H ₂ O (– 322) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tri-O-galloyl-β-D-glucose (1)
17	4.57	1417 [cmp A = M – gall (– 152) – H] [–] , 935 [M – HHDP – gall – glc = gm D (– 634) – H] [–] , 785 [tell I – H = icr F – 18 – H] [–] , 783 [oen C = M – HHDP – 2 x gall – glc (– 786) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin A (1)
18	4.72	1247 [M – irg B (– 954) – H] [–] , 785 [tell I – H] [–] , 783 [oen C – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall – H ₂ O (– 170) – H] [–] , 483 [di-gall-glc – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin F (3)
19	4.92	465 [M – gall – H ₂ O (– 170) – H] [–] , 331 [M – 2 x gall (– 304) – H] [–] , 313 [M – 2 x gall – H ₂ O (– 322) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tri-O-galloyl-β-D-glucose (2)
20	5.08	633 [M – gall (– 152) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tellimagrandin I (2)
21	5.16	1085 [crn B – H] [–] , 935 [M – cmp A (– 1418) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall (– 152) – H ₂ O – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–]	Cornusiin C (1)
22	5.22	933 [M – gall (– 152) – H] [–] , 783 [oen C = M – HHDP (– 302) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 451 [VTL – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin B
23	5.32	1417 [cmp A = M – gall (– 152) – H] [–] , 935 [M – HHDP – gall – glc = gm D (– 634) – H] [–] , 785 [tell I – H] [–] , 783 [oen C = M – HHDP – 2 x gall – glc (– 786) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin A (2)
24	5.40	935 [M – HHDP – gall – glc = gm D (– 634) – H] [–] , 785 [tell I – H] [–] , 783 [oen C = M – HHDP – 2 x gall – glc (– 786) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin A (3)
25	5.58	935 [M – HHDP – gall – glc = gm D (– 634) – H] [–] , 785 [tell I – H] [–] , 783 [oen C = M – HHDP – 2 x gall – glc (– 786) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin A (4)
26	5.69	1085 [crn B – H] [–] , 935 [M – cmp A (– 1418) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall (– 152) – H ₂ O – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–]	Cornusiin C (2)
27	5.87	1085 [crn B – H] [–] , 935 [M – cmp A (– 1418) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 613 [oen C – gall (– 152) – H ₂ O – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 331 [gall-glc – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–]	Cornusiin C (3)
28	6.04	935 [M – HHDP – gall – glc = gm D (– 634) – H] [–] , 785 [tell I – H] [–] , 783 [oen C = M – HHDP – 2 x gall – glc (– 786) – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–]	Cornusiin A (5)

		633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	
29	6.15	1569 [M-gall (– 152) – H] [–] , 1087 [M – gall-HHDP-glc = gm D (– 634) – H] [–] , 1085 [crn B = M – 3 x gall – glc (– 636) – H] [–] , 935 [M – HHDP – 2 x gall - glc = tell I (– 786) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O (– 18) = M – 768 – 152 – 18 – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin D or Camptothin B (1)
30	6.34	1569 [M-gall (– 152) – H] [–] , 1087 [M – gall-HHDP-glc = gm D (– 634) – H] [–] , 1085 [crn B = M – 3 x gall-glc (– 636) – H] [–] , 935 [M – HHDP – 2 x gall-glc = tell I (– 786) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O (– 18) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 425 [DVDL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin D or Camptothin B (2)
31	6.49	785 [M – gall (– 152) – H] [–] , 633 [gall-HHDP-glc = gm D = M – 2 x gall (– 304) – H] [–] , 465 [M – HHDP – gall – H ₂ O (– 472) – H] [–] , 447 [M – HHDP – gall – 2 x H ₂ O (– 490) – H] [–] , 313 [gall-glc – H ₂ O – H] [–] , 301 [EA – H] [–] , 295 [M – HHDP – 2 x gall – 2 x H ₂ O (– 642) – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tellimagrandin II
32	6.69	617 [M – gall – H ₂ O (– 170) – H] [–] , 465 [M – 2 x gall – H ₂ O (– 322) – H] [–] , 447 [M – 2 x gall – 2 x H ₂ O (– 340) – H] [–] , 313 [gall-glc – H ₂ O = M – 3 x gall – H ₂ O (– 474) – H] [–] , 295 [gall-glc – 2 x H ₂ O = M – 3 x gall – 2 x H ₂ O (– 492) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Tetra- <i>O</i> -galloyl-β-D-glucose
33	6.78	275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–]	Ellagic acid
34	6.96	935 [M – cmp A – gall (– 1570) – H] [–] , 785 [M – cmp A – HHDP (– 1720) = tell I – H] [–] , 765 [oen C – H ₂ O – H] [–] , 633 [gall-HHDP-glc – H] [–] , 451 [VTL – H] [–] , 313 [gall-glc – H ₂ O (– 18) – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Trapanin A (β or α)
35	7.04	935 [M-tell I (– 786) – H] [–] , 785 [tell I – H] [–] , 765 [oen C – H ₂ O = M – tell II – H ₂ O (– 956) – H] [–] , 633 [gall-HHDP-glc = gm D – H] [–] , 451 [VTL – H] [–] , 301 [EA – H] [–] , 275 [LHHDP – CO ₂ (– 44) – H] [–] , 249 [HHBP – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Cornusiin D or Camptothin B (3)
36	7.42	787 [M – gall (– 152) – H] [–] , 769 [M – gall – H ₂ O (– 170) – H] [–] , 617 [M – 2 x gall – H ₂ O (– 322) – H] [–] , 465 [M – 3 x gall – H ₂ O (– 474) – H] [–] , 295 [M – 4 x gall – 2 x H ₂ O (– 644) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Penta- <i>O</i> -galloyl-β-D-glucose (1)
37	7.77	787 [M – gall (– 152) – H] [–] , 617 [M – 2 x gall – H ₂ O (– 322) – H] [–] , 465 [M – 3 x gall – H ₂ O (– 474) – H] [–] , 313 [M – 4 x gall – H ₂ O (– 626) – H] [–] , 169 [GA – H] [–] , 125 [GA – CO ₂ (– 44) – H] [–]	Penta- <i>O</i> -galloyl-β-D-glucose (2)

t_R, retention time; **MS²**, the second mass spectrum (fragment ions); **cmp A**, camptothin A; **crn B**, cornusiin B; **DVDL**, decarboxylated valoneic acid dilactone; **EA**, ellagic acid; **GA**, gallic acid; **gall**, galloyl; **glc**, β-D-glucose; **gm D**, gemin D; **HHBP**, hexahydroxybiphenyl; **HHDP**, hexahydroxydiphenoyl; **icr F**, isocoriarin F; **irg B**, isorugosin B; **LHHDP**, hexahydroxydiphenic acid monolactone; **oen C**, oenothien C; **tell I**, tellimagrandin I; **tell II**, tellimagrandin II; **VTL**, valoneic acid trilactone; main signals are underline