|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S1 The table of flavonoid metabolites of PCRC with different aging periods | | | | | | | | | | | |
| Component name | Precursor ion | Ionization model | Molecular formula | Molecular Weight | Classification | C0 | C1 | C2 | C3 | C4 | C29 |
| Tectochrysin | 269.08 | [M+H]+ | C16H12O4 | 268.074 | Flavonoid | 0 | 21822 | 20924 | 22378 | 18803 | 18717 |
| Apigenin | 271.06 | [M+H]+ | C15H10O5 | 270.053 | Flavonoid | 0 | 69684 | 194160 | 176273 | 234647 | 191600 |
| 8-Methoxychrysin(Wogonin) | 285.08 | [M+H]+ | C16H12O5 | 284.068 | Flavonoid | 87443 | 78834 | 93191 | 79655 | 70357 | 49135 |
| Isoscutellarein | 287.06 | [M+H]+ | C15H10O6 | 286.047 | Flavonoid | 77022667 | 50893000 | 65170000 | 52640667 | 25652000 | 28880667 |
| Luteolin | 285.04 | [M-H]- | C15H10O6 | 286.048 | Flavonoid | 0 | 99007 | 183020 | 399967 | 321533 | 194553 |
| Hispidulin | 301.07 | [M+H]+ | C16H12O6 | 300.063 | Flavonoid | 591870 | 1971100 | 1923933 | 5635267 | 3397133 | 2027800 |
| Diosmetin | 299.06 | [M-H]- | C16H12O6 | 300.063 | Flavonoid | 5567233 | 2317000 | 1797967 | 7555833 | 4590500 | 5743867 |
| 6,7,8-Tetrahydroxy-5-methoxyflavone | 301.07 | [M+H]+ | C16H12O6 | 300.063 | Flavonoid | 631377 | 1950700 | 2183433 | 5733433 | 3503333 | 1977733 |
| 5,7,8-Tetrahydroxy-6-methoxyflavone | 301.07 | [M+H]+ | C16H12O6 | 300.063 | Flavonoid | 100846 | 52927 | 0 | 370727 | 49953 | 46693 |
| Tricetin | 301.04 | [M-H]- | C15H10O7 | 302.043 | Flavonoid | 18482667 | 17647667 | 19474000 | 14083000 | 14713667 | 11634000 |
| 6-Hydroxyluteolin | 301.04 | [M-H]- | C15H10O7 | 302.043 | Flavonoid | 0 | 36007 | 80031 | 109570 | 110593 | 455953 |
| 5,7,4'-Trimethoxyflavone | 313.11 | [M+H]+ | C18H16O5 | 312.100 | Flavonoid | 2746233 | 2004233 | 2075867 | 3671867 | 2712000 | 2784233 |
| Ladanein | 315.09 | [M+H]+ | C17H14O6 | 314.079 | Flavonoid | 5708467 | 3595533 | 538900 | 22362667 | 9550733 | 11776333 |
| 5,2'-Dihydroxy-7,8-dimethoxy flavone | 315.09 | [M+H]+ | C17H14O6 | 314.079 | Flavonoid | 266750 | 198297 | 185997 | 463517 | 287623 | 355803 |
| Tricin | 331.08 | [M+H]+ | C17H14O6O7 | 330.074 | Flavonoid | 197553 | 340580 | 30148 | 602223 | 258257 | 238673 |
| Tetramethyl-O-isoscutellarein | 343.12 | [M+H]+ | C19H18O6 | 342.110 | Flavonoid | 2974767 | 2131833 | 2730133 | 3589667 | 3276433 | 3505433 |
| 5,7,8,4'-Tetramethoxyflavone | 343.12 | [M+H]+ | C19H18O6 | 342.110 | Flavonoid | 8135633 | 6259000 | 7578300 | 10111867 | 9374933 | 9645200 |
| 7,8-Dihydroxy-5,6,4'-trimethoxyflavone | 345.10 | [M+H]+ | C18H16O7 | 344.089 | Flavonoid | 5824467 | 3700567 | 2296033 | 17944667 | 7535633 | 14042000 |
| 5,7-Dihydroxy-3',4',5'-trimethoxyflavone | 345.10 | [M+H]+ | C18H16O7 | 344.090 | Flavonoid | 27547667 | 20061333 | 18395000 | 49951333 | 44449333 | 56847667 |
| 5,7,4',5'-Tetrahydro-3',6-dimethoxyflavone | 347.08 | [M+H]+ | C17H14O8 | 346.069 | Flavonoid | 1977300 | 1728600 | 802760 | 6304167 | 3293700 | 4872767 |
| Limocitrin | 347.07 | [M+H]+ | C17H14O8 | 346.069 | Flavonoid | 2093233 | 1345767 | 756007 | 9187533 | 4453933 | 8396233 |
| 7-Hydroxy-3,5,6,8-tetramethoxyflavone | 359.11 | [M+H]+ | C19H18O7 | 358.105 | Flavonoid | 4157533 | 3771933 | 3727733 | 6327367 | 5337367 | 6088433 |
| 5-Hydroxy-6,7,3',4'-tetramethoxyflavone | 359.11 | [M+H]+ | C19H18O7 | 358.105 | Flavonoid | 122710000 | 137023333 | 113473333 | 190366667 | 146906667 | 161900000 |
| Isosinensetin | 373.13 | [M+H]+ | C20H20O7 | 372.121 | Flavonoid | 6607900 | 6602933 | 6486267 | 9363233 | 8669700 | 8266633 |
| Sinensetin (5,6,7,3',4'-pentamethoxyflavone) | 373.13 | [M+H]+ | C20H20O7 | 372.121 | Flavonoid | 2030633 | 1910767 | 2178300 | 2650633 | 2656367 | 2487333 |
| Skullcapflavon II | 375.11 | [M+H]+ | C19H18O8 | 374.100 | Flavonoid | 5890767 | 2552133 | 2177067 | 11817000 | 6840367 | 12938000 |
| 5-Hydroxy-6,7,8,3',4'-pentamethoxyflavone | 389.12 | [M+H]+ | C20H20O8 | 388.116 | Flavonoid | 295460000 | 278610000 | 274616667 | 298050000 | 279746667 | 293590000 |
| Nobiletin | 403.14 | [M+H]+ | C21H22O8 | 402.131 | Flavonoid | 9971500 | 9870533 | 8308200 | 10398333 | 10374333 | 10351333 |
| Apigenin 7-O-glucoside(Cosmosiin) | 431.10 | [M-H]- | C21H20O10 | 432.106 | Flavonoid | 54740 | 277050 | 506453 | 190017 | 272907 | 229623 |
| Apigenin 5-O-glucoside | 433.11 | [M+H]+ | C21H20O10 | 432.106 | Flavonoid | 98752000 | 30621000 | 57616333 | 26812000 | 24127000 | 17756667 |
| Loquatoside | 437.11 | [M-H]- | C20H22O11 | 438.116 | Flavonoid | 2157467 | 943910 | 1087607 | 1427967 | 188630 | 0 |
| Luteolin-7-O-glucoside(Cynaroside) | 449.11 | [M+H]+ | C21H20O11 | 448.101 | Flavonoid | 865727 | 482110 | 544613 | 428940 | 349427 | 303023 |
| Diosmetin-7-O-galactoside | 463.12 | [M+H]+ | C22H22O11 | 462.116 | Flavonoid | 465617 | 435267 | 0 | 1297767 | 350773 | 536077 |
| Diosmetin-6-C-glucoside | 463.12 | [M+H]+ | C22H22O11 | 462.116 | Flavonoid | 2586667 | 1504900 | 1224300 | 2209467 | 1067000 | 768990 |
| Chrysoeriol-7-O-glucoside | 461.11 | [M-H]- | C22H22O11 | 462.116 | Flavonoid | 4254500 | 5652700 | 2002533 | 14309667 | 5912233 | 6147133 |
| Chrysoeriol-5-O-hexoside | 461.11 | [M-H]- | C22H22O11 | 462.116 | Flavonoid | 701150 | 914130 | 715993 | 1137833 | 835260 | 863867 |
| Chrysoeriol-C-hexoside | 463.12 | [M+H]+ | C22H22O11 | 462.116 | Flavonoid | 86464 | 96580 | 108610 | 159900 | 149997 | 195067 |
| Hesperetin-7-O-glucoside | 465.14 | [M+H]+ | C22H24O11 | 464.131 | Flavonoid | 266713333 | 218520000 | 222330000 | 183836667 | 184690000 | 142130000 |
| Hesperetin-5-O-glucoside | 463.12 | [M-H]- | C22H24O11 | 464.131 | Flavonoid | 202287 | 256913 | 223737 | 1900600 | 278387 | 15956 |
| 5,2'-Dihydroxy-7,8-dimethoxyflavone glycosides | 477.14 | [M+H]+ | C23H24O11 | 476.132 | Flavonoid | 508293 | 1486160 | 670443 | 2824167 | 1671867 | 3801633 |
| Limocitrin-O-arabinoside | 479.12 | [M+H]+ | C22H22O12 | 478.111 | Flavonoid | 55909 | 189930 | 335893 | 184257 | 136717 | 104145 |
| Limocitrin 3-rhamnoside | 493.13 | [M+H]+ | C23H24O12 | 492.126 | Flavonoid | 436097 | 490233 | 371497 | 890843 | 620997 | 1215700 |
| Tricin 7-O-Glucoside | 493.13 | [M+H]+ | C23H24O12 | 492.127 | Flavonoid | 469063 | 491803 | 343247 | 804093 | 581697 | 1199667 |
| Chrysoeriol-O-acetylhexoside | 503.12 | [M-H]- | C24H24O12 | 504.127 | Flavonoid | 23328333 | 10802333 | 9599667 | 3803700 | 1523233 | 263763 |
| Eupatilin 3-glucoside | 507.15 | [M+H]+ | C24H26O12 | 506.142 | Flavonoid | 88674 | 109450 | 117530 | 274177 | 201000 | 535567 |
| Limocitrin 7-glucoside | 509.13 | [M+H]+ | C23H24O13 | 508.121 | Flavonoid | 7607667 | 5936867 | 4745900 | 4088767 | 4405767 | 5571367 |
| Limocitrin 3-galactoside | 509.13 | [M+H]+ | C23H24O13 | 508.121 | Flavonoid | 2135500 | 2774367 | 2740833 | 5433200 | 4918833 | 8263733 |
| Limocitrin 3-glucoside | 509.13 | [M+H]+ | C23H24O13 | 508.121 | Flavonoid | 1707300 | 2731033 | 2328367 | 6852367 | 7159633 | 10429000 |
| Tricin O-saccharic acid | 521.09 | [M-H]- | C23H22O14 | 522.101 | Flavonoid | 2996633 | 3654567 | 3291000 | 2804400 | 1655333 | 1308733 |
| Tricin O-eudesmic acid | 523.12 | [M-H]- | C27H24O11 | 524.132 | Flavonoid | 186427 | 138527 | 736710 | 160647 | 576123 | 57931 |
| Diosmetin-7-O-(6'-O-malonyl)-β-D-glucoside | 549.12 | [M+H]+ | C25H24O14 | 548.117 | Flavonoid | 1032643 | 435240 | 184797 | 64951 | 4508 | 0 |
| Tricin O-malonyl rhamnoside | 561.12 | [M-H]- | C26H26O14 | 562.132 | Flavonoid | 15981 | 25584 | 15825 | 33564 | 24914 | 17762 |
| Tricin 7-O-(6''-O-Malonyl)-Beta-D-Glucoside | 579.13 | [M+H]+ | C26H26O15 | 578.127 | Flavonoid | 24980667 | 8171500 | 6992133 | 2804133 | 1316667 | 588470 |
| Rhoifolin | 579.17 | [M+H]+ | C27H30O14 | 578.164 | Flavonoid | 157166667 | 51323000 | 83418333 | 51809667 | 42239000 | 36157000 |
| Apigenin 7-rutinoside(Isorhoifolin) | 579.17 | [M+H]+ | C27H30O14 | 578.164 | Flavonoid | 1472200 | 350030 | 648273 | 349030 | 312583 | 228440 |
| Luteolin-O-hexosyl-O-pentoside | 581.15 | [M+H]+ | C26H28O15 | 580.143 | Flavonoid | 523380 | 274083 | 335600 | 363623 | 185283 | 68237 |
| Chrysoeriol-C-rhamnoside-O-rhamnoside | 593.18 | [M+H]+ | C28H32O14 | 592.177 | Flavonoid | 945087 | 2644267 | 2911900 | 1035713 | 2242200 | 1959933 |
| Linarin | 593.19 | [M+H]+ | C28H32O14 | 592.179 | Flavonoid | 1630750 | 4572900 | 4918533 | 1890833 | 3913100 | 3475900 |
| Luteolin-6-C-5-glucuronylxyloside | 595.13 | [M+H]+ | C26H26O16 | 594.122 | Flavonoid | 2100100 | 1230600 | 1181700 | 1594633 | 1184933 | 1303233 |
| Luteolin-caffeoyl-O-rhamnoside | 593.13 | [M-H]- | C30H26O13 | 594.138 | Flavonoid | 35219667 | 17477000 | 24030000 | 15168667 | 12753667 | 9171967 |
| Luteolin-7-O-rutinoside | 593.15 | [M-H]- | C27H30O15 | 594.158 | Flavonoid | 4364700 | 3173833 | 3357200 | 3993200 | 2974133 | 3207833 |
| Luteolin 7-O-neohesperidoside(Lonicerin) | 595.17 | [M+H]+ | C27H30O15 | 594.158 | Flavonoid | 5651733 | 3175000 | 2989867 | 3018000 | 2257200 | 1700367 |
| Apigenin 6,8-C-diglucoside | 595.17 | [M+H]+ | C27H30O15 | 594.158 | Flavonoid | 4869533 | 2929300 | 2890767 | 3485200 | 2406633 | 2645533 |
| Chrysoeriol-7-O-rutinoside | 607.17 | [M-H]- | C28H32O15 | 608.174 | Flavonoid | 11591667 | 25004000 | 16462000 | 17058000 | 21581333 | 19878000 |
| Diosmin | 609.18 | [M+H]+ | C28H32O15 | 608.174 | Flavonoid | 1246273 | 1666000 | 1225733 | 1291100 | 1303500 | 1147967 |
| Luteolin-3',7-di-O-glucoside | 611.16 | [M+H]+ | C27H30O16 | 610.153 | Flavonoid | 895787 | 370770 | 95262 | 564733 | 104667 | 260827 |
| Luteolin-8-C-hexosyl-O-hexoside | 611.16 | [M+H]+ | C27H30O16 | 610.153 | Flavonoid | 17029333 | 9035267 | 6312033 | 11782333 | 7761633 | 4755400 |
| Apigenin-7-O-[β-D-glucuronosyl(1→2)-O-β-D-glucuronoside) | 623.12 | [M+H]+ | C27H26O17 | 622.117 | Flavonoid | 952890 | 0 | 0 | 0 | 0 | 0 |
| Luteolin-6-C-2-glucuronylglucoside | 625.14 | [M+H]+ | C27H28O17 | 624.133 | Flavonoid | 2580800 | 1986633 | 1477633 | 2551633 | 1514067 | 1555400 |
| Chrysoeriol-O-hexosyl-O-hexoside | 625.18 | [M+H]+ | C28H32O16 | 624.169 | Flavonoid | 302257 | 211690 | 239800 | 285687 | 258430 | 204797 |
| Tricin-O-rutinoside | 639.19 | [M+H]+ | C29H34O16 | 638.184 | Flavonoid | 21733333 | 27659667 | 30596667 | 29560333 | 32847667 | 23675333 |
| Luteolin-O-sinapoylhexoside | 655.17 | [M+H]+ | C32H30O15 | 654.158 | Flavonoid | 127580 | 64086 | 13599 | 244900 | 6411 | 100523 |
| Sudachiin B | 667.19 | [M+H]+ | C30H34O17 | 666.180 | Flavonoid | 6479700 | 10167333 | 13377000 | 23983667 | 19959000 | 42296000 |
| Sudachiin C | 667.19 | [M+H]+ | C30H34O17 | 666.180 | Flavonoid | 6595067 | 10396833 | 13719667 | 24551000 | 20224333 | 42833667 |
| Chrysoeriol-O-sinapoylhexoside | 669.18 | [M+H]+ | C33H32O15 | 668.174 | Flavonoid | 2557433 | 2044833 | 268163 | 8258367 | 1071877 | 1922000 |
| Tricin 7-O-[sinapoyl]-glucoside | 699.19 | [M+H]+ | C34H34O16 | 698.185 | Flavonoid | 141843 | 234690 | 141330 | 512833 | 404537 | 752930 |
| Apigenin-O-rutinoside-O-Hexoside | 725.20 | [M+H]+ | C33H40O18 | 724.193 | Flavonoid | 1155567 | 218540 | 336853 | 151583 | 37279 | 0 |
| Apigenin O-hexosyl-O-rutinoside | 739.21 | [M-H]- | C33H40O19 | 740.216 | Flavonoid | 379580 | 127783 | 244680 | 127427 | 147277 | 159067 |
| Narirutin 4'-glucoside | 741.23 | [M-H]- | C33H42O19 | 742.232 | Flavonoid | 1413600 | 311603 | 763863 | 316380 | 220017 | 200363 |
| Luteolin-C-hexosyl-O-rhamnoside O-hexoside | 757.22 | [M+H]+ | C33H40O20 | 756.211 | Flavonoid | 279820 | 214277 | 129560 | 223480 | 125767 | 120243 |
| Chrysoeriol-O-hexosyl-O-rutinoside | 771.23 | [M+H]+ | C34H42O20 | 770.227 | Flavonoid | 32574333 | 34010000 | 33408000 | 28367333 | 29969333 | 25641667 |
| Chrysoeriol-6-C-hexoside 8-C-hexoside-O-hexoside | 787.23 | [M+H]+ | C34H42O21 | 786.222 | Flavonoid | 1093677 | 829373 | 603067 | 604303 | 474963 | 466680 |
| Kumatakenin | 313.07 | [M-H]- | C17H14O6 | 314.079 | Flavonols | 1835600 | 1032677 | 127797 | 9449900 | 3579800 | 4104633 |
| Rhamnetin(7-O-Methxyl Quercetin) | 315.05 | [M-H]- | C16H12O7 | 316.058 | Flavonols | 115535 | 42470 | 47213 | 163860 | 95041 | 94180 |
| Isorhamnetin | 315.05 | [M-H]- | C16H12O7 | 316.058 | Flavonols | 170627 | 126407 | 74241 | 1338167 | 447953 | 307763 |
| Tamarixetin (3,3',5,7-Tetrahydroxy-4'-Methoxyflavone) | 317.07 | [M+H]+ | C16H12O7 | 316.058 | Flavonols | 108568 | 78792 | 22971 | 729193 | 268150 | 346577 |
| Sexangularetin | 315.05 | [M-H]- | C16H12O7 | 316.058 | Flavonols | 11340 | 26131 | 18948 | 36136 | 23087 | 29831 |
| Myricetin | 319.04 | [M+H]+ | C15H10O8 | 318.038 | Flavonols | 193650 | 167567 | 129280 | 167963 | 92672 | 81228 |
| 3,7-Di-O-methylquercetin | 329.07 | [M-H]- | C17H14O7 | 330.074 | Flavonols | 124232 | 157095 | 19622 | 1145460 | 285647 | 296357 |
| Syringetin | 345.06 | [M-H]- | C17H14O8 | 346.069 | Flavonols | 574117 | 364097 | 215270 | 2679900 | 1492033 | 3039933 |
| Tangeretin | 373.13 | [M+H]+ | C20H20O7 | 372.121 | Flavonols | 4152167 | 3859667 | 4086067 | 4390600 | 4209700 | 4508867 |
| Natsudaidain | 417.12 | [M-H]- | C21H22O9 | 418.126 | Flavonols | 12579000 | 13199333 | 14265333 | 32273333 | 36856333 | 31437667 |
| Kaempferol-3-O-rhamnoside (Afzelin)(Kaempferin) | 431.10 | [M-H]- | C21H20O10 | 432.106 | Flavonols | 34298 | 34856 | 63205 | 53453 | 35651 | 46179 |
| 3,5,6,7,8,3',4'-Heptamethoxyflavone | 433.15 | [M+H]+ | C22H24O9 | 432.142 | Flavonols | 9314100 | 9192733 | 10682667 | 14497000 | 17378333 | 15745333 |
| Quercetin-3-O-β-D-xylopyranoside | 435.09 | [M+H]+ | C20H18O11 | 434.084 | Flavonols | 306070 | 142177 | 183367 | 131213 | 108361 | 75791 |
| Isorhamnetin-3-O-arabinoside | 449.11 | [M+H]+ | C21H20O11 | 448.100 | Flavonols | 661973 | 493873 | 540423 | 472393 | 389490 | 261863 |
| Kaempferol-3-O-glucoside (Astragalin) | 449.11 | [M+H]+ | C21H20O11 | 448.101 | Flavonols | 3700333 | 2451300 | 1803167 | 4811533 | 2075900 | 2056300 |
| Kaempferol-3-O-galactoside (Trifolin) | 447.09 | [M-H]- | C21H20O11 | 448.101 | Flavonols | 367580 | 419453 | 242413 | 851010 | 338677 | 467333 |
| Kaempferol-7-O-glucoside | 447.09 | [M-H]- | C21H20O11 | 448.101 | Flavonols | 439043 | 512903 | 272253 | 1043093 | 425410 | 558733 |
| Quercetin-3-O-α-L-rhamnoside(Quercitrin ) | 449.11 | [M+H]+ | C21H20O11 | 448.101 | Flavonols | 16635000 | 12511000 | 13150333 | 10355333 | 10173967 | 7405433 |
| Kaempferol-3-O-β-D-glucuronide | 461.07 | [M-H]- | C21H18O12 | 462.080 | Flavonols | 155323 | 193310 | 173390 | 277353 | 185923 | 210483 |
| Quercetin-3-O-β-D-glucoside(Isoquercitrin) | 463.09 | [M-H]- | C21H20O12 | 464.095 | Flavonols | 471477 | 450560 | 351200 | 1113333 | 440320 | 591710 |
| Quercetin-3-O-β-D-Galactoside (Hyperin) | 463.09 | [M-H]- | C21H20O12 | 464.095 | Flavonols | 1808900 | 2010167 | 1969467 | 2282633 | 1905833 | 1713067 |
| Myricetin-3-O-rhamnoside (Myricitrin) | 463.09 | [M-H]- | C21H20O12 | 464.095 | Flavonols | 4912 | 25321 | 18450 | 6014 | 16509 | 5870 |
| Isorhamnetin-3-O-glucoside | 479.11 | [M+H]+ | C22H22O12 | 478.101 | Flavonols | 14991000 | 12796333 | 9679867 | 17761000 | 12444667 | 13041333 |
| Isorhamnetin-C-glucoside | 479.12 | [M+H]+ | C22H22O12 | 478.111 | Flavonols | 526720 | 631567 | 780303 | 1381433 | 846877 | 801007 |
| Kaempferol-3-O-(6''-acetyl)-glucoside | 489.10 | [M-H]- | C23H22O12 | 490.111 | Flavonols | 255677 | 48383 | 26931 | 16761 | 4689 | 0 |
| Quercetin-O-acetylhexoside | 505.10 | [M-H]- | C23H22O13 | 506.106 | Flavonols | 0 | 50023 | 94463 | 324543 | 293150 | 256400 |
| Isorhamnetin-acetyl hexoside | 519.11 | [M-H]- | C24H24O13 | 520.122 | Flavonols | 937593 | 264943 | 160227 | 57247 | 16444 | 0 |
| Kaempferol-3-O-(6''-trans-p-Coumaroyl)-β-D-galactopyranoside | 595.14 | [M+H]+ | C30H26O13 | 594.137 | Flavonols | 17814000 | 8442200 | 11416667 | 7091100 | 5660833 | 4280367 |
| Kaempferol-3-O-(2''-trans-p-Coumaroyl)-β-D-galactopyranoside | 595.14 | [M+H]+ | C30H26O13 | 594.137 | Flavonols | 761033 | 329817 | 393683 | 333483 | 211737 | 101746 |
| Tiliroside | 593.13 | [M-H]- | C30H26O13 | 594.137 | Flavonols | 34270000 | 17128000 | 23440333 | 14883000 | 12474667 | 8904767 |
| Kaempferol-3-O-neohesperidoside | 595.17 | [M+H]+ | C27H30O15 | 594.158 | Flavonols | 259633333 | 180110000 | 177383333 | 148510000 | 133400000 | 93072333 |
| Kaempferol-3-O-rutinoside(Nicotiflorin) | 593.15 | [M-H]- | C27H30O15 | 594.158 | Flavonols | 1038140 | 801000 | 733040 | 733780 | 746940 | 682400 |
| Quercetin-O-feruloyl-Pentoside | 611.16 | [M+H]+ | C30H26O14 | 610.148 | Flavonols | 21798667 | 12526333 | 8698433 | 12703000 | 11202000 | 5427433 |
| Quercetin-3-O-rutinoside (Rutin) | 609.15 | [M-H]- | C27H30O16 | 610.153 | Flavonols | 6527733 | 1743900 | 1219200 | 12907333 | 1104320 | 3084000 |
| Kaempferol-3,7-O-diglucoside | 611.16 | [M+H]+ | C27H30O16 | 610.153 | Flavonols | 1169803 | 751840 | 587013 | 419177 | 477343 | 458773 |
| Methylquercetin glu-rha | 625.18 | [M+H]+ | C28H32O16 | 624.169 | Flavonols | 81896333 | 61244333 | 56771333 | 83991667 | 68572333 | 58875333 |
| Isorhamnetin-3-O-neohesperidoside | 625.18 | [M+H]+ | C28H32O16 | 624.169 | Flavonols | 6497433 | 2647167 | 2643267 | 5832533 | 4227067 | 5538200 |
| Isorhamnetin-3-O-rutinoside (Narcissin) | 623.16 | [M-H]- | C28H32O16 | 624.169 | Flavonols | 5056767 | 7055333 | 6186500 | 19246000 | 11678000 | 12669000 |
| Isorhamnetin-glc-rha | 625.17 | [M+H]+ | C28H32O16 | 624.169 | Flavonols | 24127000 | 17177667 | 18182667 | 34767667 | 24479333 | 27140000 |
| 6-Hydroxykaempferol-3,6-O-Diglucoside | 627.16 | [M+H]+ | C27H30O17 | 626.148 | Flavonols | 93267 | 241573 | 0 | 475717 | 155233 | 349490 |
| Quercetin-3,7-O-β-D-diglucoside | 627.16 | [M+H]+ | C27H30O17 | 626.148 | Flavonols | 3417467 | 2484767 | 2567367 | 2154833 | 1601367 | 1502933 |
| Isorhamnetin-O-Hexoside-O-Hexoside | 641.17 | [M+H]+ | C28H32O17 | 640.163 | Flavonols | 1715667 | 1746733 | 540310 | 1737100 | 814950 | 1064380 |
| Limocitrin-3-O-(3-hydroxy-3-methylglutarate)-glucoside | 653.17 | [M+H]+ | C29H32O17 | 652.164 | Flavonols | 1518433 | 3178067 | 2518800 | 11007000 | 10686133 | 18637333 |
| Kaempferol-3-O-β-glucosyl(1→2)(6'-O-acetyl)-β-D-galactoside | 651.16 | [M-H]- | C29H32O17 | 652.164 | Flavonols | 305900 | 216077 | 247860 | 285823 | 171143 | 112613 |
| Gossypetin glu-glucuronic acid | 657.13 | [M+H]+ | C27H28O19 | 656.122 | Flavonols | 5895300 | 5323100 | 5288233 | 5728633 | 5046433 | 5147733 |
| Natsudaidain 3-O-(3-hydroxy-3-methylglutarate)-glucoside) | 725.23 | [M+H]+ | C33H40O18 | 724.221 | Flavonols | 71853667 | 223500000 | 229713333 | 329306667 | 387756667 | 392553333 |
| Robinin(Kaempferol-3-O-gal-rham-7-O-rham) | 741.22 | [M+H]+ | C33H40O19 | 740.216 | Flavonols | 84250000 | 30257333 | 46227333 | 13862000 | 15889333 | 15857667 |
| Quercetin-O-rhamnoside-O-Hexoside-O-rhamnoside | 757.22 | [M+H]+ | C33H40O20 | 756.211 | Flavonols | 539707 | 368060 | 289063 | 250263 | 247223 | 251473 |
| Kaempferol-3-O-rutinoside-7-glucoside | 757.22 | [M+H]+ | C33H40O20 | 756.211 | Flavonols | 2092100 | 1610533 | 1377600 | 1578033 | 1267433 | 1005090 |
| Quercetin-O-rutinoside-hexose | 771.20 | [M-H]- | C33H40O21 | 772.206 | Flavonols | 424493 | 506213 | 228810 | 472373 | 239127 | 286543 |
| Quercetin-glucoside-glucoside-rhamnoside | 773.21 | [M+H]+ | C33H40O21 | 772.206 | Flavonols | 598413 | 281983 | 112917 | 372850 | 154983 | 163860 |
| 6-Hydroxykaempferol-3-O-rutin-6-O-glucoside | 773.21 | [M+H]+ | C33H40O21 | 772.206 | Flavonols | 1231967 | 1221133 | 710650 | 751887 | 852310 | 653510 |
| Isorhamnetin-O-Hexoside-O-Hexoside-O-Rhamnoside | 787.23 | [M+H]+ | C34H42O21 | 786.221 | Flavonols | 539673 | 602553 | 232860 | 667237 | 347973 | 323517 |
| Natsudaidain 3-O-(5-glucosyl-3-hydroxy-3-methylglutarate)-glucoside) | 887.28 | [M+H]+ | C39H50O23 | 886.274 | Flavonols | 46090333 | 25482000 | 25516333 | 22683333 | 16406333 | 4236167 |
| Isorhamnetin-O-Hexoside-O-rhamnoside-O-rhamnoside-O-Hexoside | 933.26 | [M+H]+ | C40H52O25 | 932.252 | Flavonols | 954857 | 1168420 | 236587 | 2756800 | 401527 | 1315933 |
| Isorhamnetin-O-Hexoside-O-rhamnoside-O-glucuronate-O-Hexoside | 963.27 | [M+H]+ | C40H50O27 | 962.262 | Flavonols | 2607800 | 4047867 | 4148133 | 3301933 | 1511200 | 2604700 |
| Apigenin-8-C-Glucoside (Vitexin) | 433.11 | [M+H]+ | C21H20O10 | 432.106 | Flavonoid carbonoside | 29319667 | 20788000 | 12603000 | 34252667 | 13391667 | 13826000 |
| Apigenin-6-C-glucoside (Isovitexin) | 431.10 | [M-H]- | C21H20O10 | 432.106 | Flavonoid carbonoside | 8050000 | 7681533 | 3787600 | 13874000 | 5785500 | 10247667 |
| Isohemiphloin | 433.11 | [M-H]- | C21H22O10 | 434.121 | Flavonoid carbonoside | 367777 | 310653 | 161850 | 523493 | 211537 | 338723 |
| Luteolin-8-C-Glucoside (Orientin) | 449.11 | [M+H]+ | C21H20O11 | 448.101 | Flavonoid carbonoside | 61195000 | 26839333 | 7670900 | 104235333 | 16584333 | 23168333 |
| Luteolin-6-C-glucoside (Isoorientin) | 447.09 | [M-H]- | C21H20O11 | 448.101 | Flavonoid carbonoside | 10917200 | 4390933 | 855420 | 19435667 | 2769967 | 3612533 |
| Swertiajaponin | 463.12 | [M+H]+ | C22H22O11 | 462.116 | Flavonoid carbonoside | 5171133 | 4992933 | 1150100 | 5256900 | 635987 | 800457 |
| 5,7,4'-Trihydroxy-6-methoxyflavone-8-C-β-D-glucoside | 463.13 | [M+H]+ | C22H22O11 | 462.116 | Flavonoid carbonoside | 3256633 | 1824300 | 1494600 | 2696133 | 1246167 | 981243 |
| 5,4'-Dihydroxy-6,7-dimethoxyflavone-8-C-β-D-glucoside | 477.14 | [M+H]+ | C23H24O11 | 476.132 | Flavonoid carbonoside | 67129 | 239023 | 340777 | 815490 | 755750 | 1595533 |
| Hesperetin C-malonylhexoside | 549.16 | [M+H]+ | C26H28O13 | 548.153 | Flavonoid carbonoside | 37950667 | 9506000 | 8876433 | 2485000 | 1109267 | 609720 |
| Isoschaftoside | 565.16 | [M+H]+ | C26H28O14 | 564.123 | Flavonoid carbonoside | 206897 | 140340 | 133980 | 137657 | 63793 | 129200 |
| Genistein 8-C-apiosyl(1→6)glucoside | 565.16 | [M+H]+ | C26H28O14 | 564.148 | Flavonoid carbonoside | 1515500 | 762387 | 155883 | 735163 | 216293 | 311733 |
| Apigenin-6-C-glucose-8-xylcose | 565.16 | [M+H]+ | C26H28O14 | 564.148 | Flavonoid carbonoside | 30584000 | 16222000 | 3464133 | 13327333 | 4487500 | 4221100 |
| Apigenin-6-C-2-glucuronylxyloside | 579.13 | [M+H]+ | C26H26O15 | 578.127 | Flavonoid carbonoside | 1034120 | 746113 | 193820 | 714637 | 286327 | 329187 |
| Vitexin 2''-O-rhamnoside | 579.17 | [M+H]+ | C27H30O14 | 578.164 | Flavonoid carbonoside | 4820367 | 3733200 | 805600 | 3111667 | 1396533 | 1726167 |
| Isovitexin 7-O-glucoside(Saponarin) | 593.15 | [M-H]- | C27H30O15 | 594.158 | Flavonoid carbonoside | 2822267 | 1658833 | 1731667 | 2100133 | 1540867 | 1778867 |
| Vitexin-2-O-glucopyranoside | 595.17 | [M+H]+ | C27H30O15 | 594.158 | Flavonoid carbonoside | 1648767 | 1101600 | 1063400 | 983077 | 1057490 | 708683 |
| Luteolin-6,8-di-C-glucoside | 611.16 | [M+H]+ | C27H30O16 | 610.153 | Flavonoid carbonoside | 4563800 | 3969433 | 1931033 | 4804333 | 2070033 | 2177233 |
| Chrysoeriol-6,8-di-C-glucoside | 625.18 | [M+H]+ | C28H32O16 | 624.169 | Flavonoid carbonoside | 24655000 | 18531000 | 14504667 | 24048667 | 14279000 | 14447333 |
| 6-C-Hexosyl chrysoeriol O-hexoside | 625.18 | [M+H]+ | C28H32O16 | 624.169 | Flavonoid carbonoside | 14152000 | 2737167 | 2418500 | 4155800 | 1982800 | 5313333 |
| 8-C-Hexosyl-hesperetin O-hexoside | 627.19 | [M+H]+ | C28H34O16 | 626.185 | Flavonoid carbonoside | 2232433 | 1168593 | 237870 | 2797900 | 620853 | 749273 |
| 6-C-Hexosyl-hesperetin O-hexoside | 627.19 | [M+H]+ | C28H34O16 | 626.185 | Flavonoid carbonoside | 5571200 | 3663800 | 3743700 | 3268267 | 3125300 | 1895133 |
| 5,4'-Dihydroxy-6,7-dimethoxyflavone-8-C-[β-D-glucosyl-(1-2)]-β-D-glucoside | 639.20 | [M+H]+ | C29H34O16 | 638.185 | Flavonoid carbonoside | 1424733 | 1016153 | 1776867 | 2287067 | 2411500 | 2157133 |
| 6-C-Hexosyl-apigenin O-hexosyl-O-hexoside | 757.22 | [M+H]+ | C33H40O20 | 756.211 | Flavonoid carbonoside | 1065853 | 664237 | 675550 | 526450 | 424983 | 435120 |
| 8-C-Hexosyl-apigenin O-feruloylhexoside | 771.21 | [M+H]+ | C37H38O18 | 770.206 | Flavonoid carbonoside | 1686367 | 1049313 | 1095867 | 798057 | 810283 | 1117067 |
| 6-C-Hexosyl-apigenin O-feruloylhexoside | 771.21 | [M+H]+ | C37H38O18 | 770.206 | Flavonoid carbonoside | 2042467 | 1415867 | 1446200 | 1711600 | 1092953 | 1208417 |
| 8-C-Hexosyl-apigenin O-sinapoylhexoside | 801.22 | [M+H]+ | C38H40O19 | 800.216 | Flavonoid carbonoside | 314660 | 250290 | 335473 | 294287 | 201440 | 254583 |
| Naringenin | 271.06 | [M-H]- | C15H12O5 | 272.068 | Dihydroflavone | 333523 | 1308500 | 3408267 | 2149467 | 2475300 | 1055733 |
| Butin | 273.08 | [M+H]+ | C15H12O5 | 272.068 | Dihydroflavone | 435377 | 1686667 | 4220800 | 2430600 | 2838633 | 1151133 |
| Isosakuranetin(4'-Methylnaringenin) | 287.09 | [M+H]+ | C16H14O5 | 286.084 | Dihydroflavone | 126767 | 888373 | 1784533 | 1090167 | 1629567 | 1266533 |
| Eriodictyol | 287.06 | [M-H]- | C15H12O6 | 288.063 | Dihydroflavone | 76828 | 533217 | 990117 | 1122450 | 851797 | 586707 |
| Homoeriodictyol | 303.09 | [M+H]+ | C16H14O6 | 302.079 | Dihydroflavone | 1007713 | 59225333 | 136053333 | 59222667 | 88361667 | 47430333 |
| Hesperetin | 301.07 | [M-H]- | C16H14O6 | 302.079 | Dihydroflavone | 417317 | 26183667 | 67591333 | 29585667 | 44605333 | 24821667 |
| 5,7,3',4',5'-Pentamethoxyflavanone | 375.14 | [M+H]+ | C20H22O7 | 374.124 | Dihydroflavone | 1813067 | 1814000 | 1861633 | 4969833 | 4605867 | 11552667 |
| 5,6,7,8,3',4'-Hexamethoxyflavanone | 405.15 | [M+H]+ | C21H24O8 | 404.147 | Dihydroflavone | 588443 | 3761167 | 5750100 | 10055433 | 10927667 | 8091967 |
| Naringenin-7-O-glucoside | 433.11 | [M-H]- | C21H22O10 | 434.121 | Dihydroflavone | 316467 | 210257 | 487050 | 337503 | 234023 | 125283 |
| Eriodictyol 7-O-glucoside | 451.12 | [M+H]+ | C21H22O11 | 450.116 | Dihydroflavone | 4019200 | 3013733 | 3162833 | 2883000 | 2325267 | 1657400 |
| Farrerol 7-O-glucoside | 463.16 | [M+H]+ | C23H26O10 | 462.152 | Dihydroflavone | 1614800 | 2590367 | 1262220 | 4287733 | 2021800 | 2662033 |
| Persicoside | 477.14 | [M-H]- | C23H26O11 | 478.148 | Dihydroflavone | 216413 | 492163 | 500303 | 778393 | 602490 | 546540 |
| Naringenin 7-O-(2-β-Dapiofuranosyl)-β-D-glucopyranoside | 551.18 | [M+H]+ | C26H30O13 | 550.169 | Dihydroflavone | 0 | 812880 | 610157 | 1311633 | 1663300 | 28452 |
| Naringenin-7-O-Neohesperidoside(Naringin) | 579.17 | [M-H]- | C27H32O14 | 580.179 | Dihydroflavone | 1208600 | 504457 | 1071300 | 765443 | 446020 | 340803 |
| Naringenin-7-O-Rutinoside(Narirutin) | 579.17 | [M-H]- | C27H32O14 | 580.179 | Dihydroflavone | 1159867 | 461883 | 965130 | 728467 | 425650 | 315160 |
| Poncirin(Isosakuranetin-7-neohesperidoside) | 593.19 | [M-H]- | C28H34O14 | 594.195 | Dihydroflavone | 36353000 | 17941000 | 24826000 | 15676667 | 13143333 | 9389733 |
| Eriocitrin | 595.17 | [M-H]- | C27H32O15 | 596.174 | Dihydroflavone | 21199667 | 11991333 | 16827667 | 18111000 | 17573000 | 22460667 |
| Hesperetin 7-O-neohesperidoside(Neohesperidin) | 609.18 | [M-H]- | C28H34O15 | 610.190 | Dihydroflavone | 14202333 | 12615000 | 13569000 | 10351567 | 10608333 | 8861933 |
| Hesperidin | 609.18 | [M-H]- | C28H34O15 | 610.190 | Dihydroflavone | 14419000 | 13198000 | 14271667 | 11122000 | 11220667 | 9461733 |
| Gallic acid | 169.01 | [M-H]- | C7H6O5 | 170.022 | Tannin | 1886167 | 7537267 | 8771900 | 5550400 | 7696900 | 5678667 |
| Methyl gallate | 183.03 | [M-H]- | C8H8O5 | 184.037 | Tannin | 19785 | 106395 | 157937 | 275190 | 463257 | 686393 |
| Galloylgallic acid | 321.00 | [M-H]- | C14H10O9 | 322.021 | Tannin | 1150 | 0 | 0 | 12176 | 29879 | 59776 |
| 2-O-Galloyl-β-D-glucose | 331.07 | [M-H]- | C13H16O10 | 332.075 | Tannin | 268440 | 69801 | 241590 | 43367 | 33673 | 16700 |
| 3-O-Galloyl-β-D-glucose | 331.07 | [M-H]- | C13H16O10 | 332.075 | Tannin | 230460 | 532817 | 389613 | 570363 | 311130 | 189257 |
| Ellagicacid-4-O-β-D-galloyl-β-Dglucopyranoside | 463.05 | [M-H]- | C20H16O13 | 464.060 | Tannin | 49387000 | 37226333 | 41787000 | 37884333 | 33119333 | 26839333 |
| Gallic acid O-feruloyl-O-hexosyl-O-hexoside | 671.18 | [M+H]+ | C29H34O18 | 670.174 | Tannin | 489110 | 519970 | 546403 | 669533 | 665753 | 593137 |
| Formononetin | 267.07 | [M-H]- | C16H12O4 | 268.074 | Isoflavones | 6045 | 16281 | 7335 | 6547 | 49496 | 4629 |
| Prunetin | 283.06 | [M-H]- | C16H12O5 | 284.068 | Isoflavones | 393157 | 338733 | 332037 | 1958400 | 1126233 | 962820 |
| 2'-Hydroxyisoflavone | 285.05 | [M-H]- | C15H10O6 | 286.048 | Isoflavones | 0 | 5850 | 8584 | 11922 | 40597 | 13405 |
| Pratensein | 301.07 | [M+H]+ | C16H12O6 | 300.063 | Isoflavones | 634853 | 2020100 | 2077733 | 5863700 | 3408933 | 2080433 |
| Formononetin 7-O-glucoside(Ononin) | 431.13 | [M+H]+ | C22H22O9 | 430.126 | Isoflavones | 68826 | 66012 | 46273 | 139833 | 135626 | 151000 |
| Sissotrin | 447.13 | [M+H]+ | C22H22O10 | 446.121 | Isoflavones | 35090 | 61476 | 64855 | 84049 | 65529 | 43733 |
| Wistin (6,4'-Dimethoxyisoflavone-7-glucoside) | 461.14 | [M+H]+ | C23H24O10 | 460.137 | Isoflavones | 171823 | 93048 | 78197 | 125326 | 100853 | 101345 |
| Astilbin | 449.11 | [M-H]- | C21H22O11 | 450.116 | Dihydroflavonol | 110414 | 98872 | 153890 | 149983 | 108457 | 156470 |
| Hesperetin O-Glucuronic acid | 477.14 | [M-H]- | C23H26O11 | 478.148 | Dihydroflavonol | 80803 | 110097 | 108932 | 307997 | 352740 | 716857 |
| Phellodendroside | 519.19 | [M+H]+ | C26H30O11 | 518.179 | Dihydroflavonol | 504943 | 357613 | 632727 | 880173 | 327737 | 146547 |
| Hesperetin O-malonylhexoside | 549.12 | [M-H]- | C25H26O14 | 550.132 | Dihydroflavonol | 242930 | 445670 | 223110 | 185230 | 172960 | 100991 |
| Hesperetin O-hexosyl-O-hexoside | 625.18 | [M-H]- | C28H34O16 | 626.185 | Dihydroflavonol | 11485 | 12936 | 9903 | 14081 | 11988 | 10180 |
| Catechin | 289.07 | [M-H]- | C15H14O6 | 290.079 | Flavanols | 14581 | 42918 | 48119 | 209880 | 317890 | 557353 |
| Gallocatechin | 307.08 | [M+H]+ | C15H14O7 | 306.074 | Flavanols | 0 | 4148 | 40853 | 91122 | 24953 | 14235 |
| Epicatechin gallate | 441.08 | [M-H]- | C22H18O10 | 442.090 | Flavanols | 16309 | 20018 | 18206 | 28836 | 34775 | 40764 |
| Catechin gallate | 441.08 | [M-H]- | C22H18O10 | 442.090 | Flavanols | 10235 | 16418 | 17880 | 24402 | 33487 | 36614 |
| Gallocatechin-catechin | 593.13 | [M-H]- | C30H26O13 | 594.137 | Flavanols | 9256600 | 6806367 | 6799733 | 6484633 | 7038667 | 6773433 |
| Cyanidin-3-O-(6''-p-Coumaroylglucoside) | 595.14 | [M]+ | C30H27O13+ | 595.145 | Anthocyanins | 255130000 | 175373333 | 171200000 | 144513333 | 130620000 | 90379667 |
| Peonidin-3-(6''-p-Coumaroylglucoside) | 609.16 | [M]+ | C31H29O13+ | 609.160 | Anthocyanins | 1297433 | 1716167 | 1258600 | 1304333 | 1375933 | 1102363 |
| Delphinidin-3-O-(6''-p-Coumaroylglucoside) | 611.14 | [M]+ | C30H27O14+ | 611.140 | Anthocyanins | 27031000 | 12909667 | 8100333 | 24877000 | 11409667 | 7894100 |
| Petunidin-3-(6''-p-Coumaroylglucoside) | 625.16 | [M]+ | C31H29O14+ | 625.155 | Anthocyanins | 14901000 | 9709400 | 8015267 | 17426667 | 10552000 | 9740067 |
| Naringenin chalcone | 273.08 | [M+H]+ | C15H12O5 | 272.068 | Chalcones | 457010 | 1735500 | 4326967 | 2453833 | 2924133 | 1165167 |
| 2'-Hydroxy-3,4,5,3',4',6'-hexameth-oxychalcone | 405.15 | [M+H]+ | C21H24O8 | 404.147 | Chalcones | 109081 | 118860 | 156753 | 173197 | 185203 | 227687 |
| Phlorizin | 435.13 | [M-H]- | C21H24O10 | 436.137 | Chalcones | 44767 | 22916 | 26652 | 51046 | 20167 | 0 |
| Monohydroxy-trimethoxyflavone | 329.10 | [M+H]+ | C18H16O6 | 328.095 | Other Flavonoids | 2245767 | 1051870 | 829363 | 2841567 | 2853700 | 4833300 |
| Monohydroxy-hexamethoxyflavone | 419.13 | [M+H]+ | C21H22O9 | 418.126 | Other Flavonoids | 7915333 | 6687000 | 5806933 | 18228667 | 13955667 | 16131000 |
| Procyanidin A2 | 577.13 | [M+H]+ | C30H24O12 | 576.127 | Proanthocyanidins | 306240 | 145960 | 211933 | 132097 | 125447 | 67548 |
| Procyanidin B3 | 579.15 | [M+H]+ | C30H26O12 | 578.142 | Proanthocyanidins | 295333 | 203217 | 208533 | 185560 | 173800 | 140073 |
| 5,7-Dihydroxy-2'-methoxy-3',4'-methyleneoxydihydroisoflavone | 329.07 | [M-H]- | C17H14O7 | 330.074 | Dihydroisoflavone | 121883 | 57707 | 46669 | 305663 | 158383 | 254577 |