**Table S1.** Summary of optimized QTRAP parameters for the LC-MS analysis of phenolic acids and flavonoid compounds. Abbreviations: Q1/Q3 – m/z values for precursor and fragment ion detected in Q1 and Q3 quadrupole, respectively (tracked MRM transitions); declustering potential (DP); entrance potential (EP); collision cell exit potential (CXP); collision energy (CE).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Compound** | **Retention time [min]** | **Q1/Q3****[m/z]** | **DP** **[V]** | **EP****[V]** | **CEP****[V]** | **CE****[eV]** |
| **Phenolic acids** |
| Gallic acid | 5.16 | 168.7/78.9168.7/124.9 | -35-35 | -3-3 | -12-12 | -36-14 |
| 3-Caffeoylquinic acid | 6.93 | 352.9/191.1352.9/178.9 | -25-25 | -10-10 | -24.7-24.7 | -28-22 |
| Protocatechuic acid | 8.42 | 152.9/80.9152.9/107.8 | -55-55 | -1-1 | -10-10 | -26-38 |
| 5-Caffeoylquinic acid | 9.24 | 353.0/190.9353.0/85 | -35-35 | -4.5-4.5 | -16-16 | -20-60 |
| 4-Caffeoylquinic acid | 9.38 | 352.9/173352.9/135352.9/179 | -25-25 | -10-10 | -24.7-24.7-24.7 | -21-36-22 |
| 4-Hydroxybenzoic acid | 10.84 | 136.8/92.9 | -30 | -7 | -10 | -18 |
| Gentisic acid | 11.37 | 152.8/80152.8/96.9 | -70-70 | -4-4 | -16-16 | -110-52 |
| Caffeic acid | 11.38 | 178.7/88.9178.7/134.9 | -30-30 | -6.5-6.5 | -12-12 | -46-16 |
| Vanilic acid | 11.41 | 166.8/107.9166.8/123 | -35-35 | -4-4 | -12-12 | -18-12 |
| Syringic acid | 11.42 | 196.9/122.8196.9/181.9 | -30-30 | -9-9 | -12-12 | -24-12 |
| 3-Hydroxybenzoic acid | 12.12 | 136.8/93136.8/75 | -35-35 | -4-4 | -16.7-16.7 | -16-48 |
| 4-Hydroxycinnamic acid (*p*-coumaric acid) | 14.10 | 162.7/119162.7/93 | -30-30 | -8-8 | -12-12 | -14-44 |
| Sinapic acid | 14.4714.94 | 222.8/121222.8/148.9 | -35-35 | -8.5-8.5 | -10-10 | -36-20 |
| Ferulic acid | 14.8015.22 | 192.8/133.9192.8/177.9 | -25-25 | -11.5-11.5 | -14-14 | -16-12 |
| 3-Hydroxycinnamic acid (*m*-coumaric acid) | 15.50 | 162.7/119162.7/91 | -35-35 | -4.5-4.5 | -12-12 | -14-36 |
| Rosmarinic acid | 15.91 | 358.7/160.8358.7/196.8 | -50-50 | -5-5 | -26-26 | -20-22 |
| 2-Hydroxycinnamic acid (*o*-coumaric acid) | 16.80 | 162.7/119162.7/93 | -25-25 | -5-5 | -10-10 | -14-46 |
| Salicylic acid | 17.91 | 136.8/93136.8/75 | -35-35 | -4-4 | -10-10 | -16-48 |
| **Flavonoid aglycones** |
| Catechin | 9.64 | 288.8/244.9288.8/109 | -45-45 | -4.5-4.5 | -16-16 | -16-32 |
|  |  |  |  |  |  |  |
| Epigallocatechin gallate | 11.20 | 457/169.1457/125 | -25-25 | -10-10 | -28.6-28.6 | -30-30 |
| Dihydromyricetin | 12.10 | 319/193319/125 | -25-25 | -1010 | -23.5-23.5 | -30-30 |
| Naringenin | 14.52 | 270.8/119270.8/150.9 | -50-50 | -11.5-11.5 | -12-12 | -34-22 |
| Taxifolin | 15.15 | 302.7/124.9302.7/284.8 | -45-45 | -3.5-3.5 | -18-18 | -26-14 |
| Myricetin | 16.57 | 316.7/136.9316.7/150.9 | -55-55 | -9-9 | -14-14 | -32-26 |
| Luteolin | 17.82 | 284.7/132.9284.7/150.9 | -75-75 | -9-9 | -18-18 | -38-26 |
| Eriodictiol | 17.89 | 286.7/134.9286.7/150.9 | -45-45 | -6-6 | -12-12 | -32-18 |
| Laricitrin(3'-O-Methylmyricetin) | 17.9 | 330.97/151330.97/315.9 | -25-25 | -1010 | -23.9-23.9 | -30-30 |
| Quercetin | 17.94 | 300.7/150.9300.7/178.8 | -60-60 | -2.5-2.5 | -12-12 | -26-20 |
| 3-*O*-Methylquercetin | 18.11 | 314.7/299.8314.7/270.8 | -55-55 | -9.5-9.5 | -22-22 | -18-26 |
| Apigenin | 18.64 | 268.8/117268.8/106.8 | -70-70 | -9.5-9.5 | -12-12 | -44-34 |
| Kaempferol | 18.85 | 284.7/116.8284.7/93 | -70-70 | -5-5 | -12-12 | -46-52 |
| Isorhamnetin | 18.99 | 314.7/299.7314.7/150.9 | -65-65 | -2.5-2.5 | -26-26 | -20-30 |
| Isokaempferide | 19.16 | 298.8/283.9298.8/226.9 | -50-50 | -4.5-4.5 | -12-12 | -18-28 |
| Rhamnetin | 20.10 | 314.7/165314.7/120.9 | -60-60 | -5.5-5.5 | -18-18 | -24-36 |
| Sakuranetin | 21.67 | 284.7/118.9284.7/164.8 | -60-60 | -5.5-5.5 | -12-12 | -34-20 |
| Chrysin | 21.82 | 252.8/208.9252.8/142.9 | -80-80 | -10-10 | -14-14 | -22-26 |
| Prunetin | 21.98 | 282.8/267.7282.8/238.7 | -55-55 | -12-12 | -18-18 | -20-26 |
| Rhamnazin | 22.37 | 328.7/270.8328.7/313.8 | -70-70 | -3-3 | -28-28 | -26-14 |
| **Flavonoid glycosides** |
| Eleutheroside E | 10.38 | 740.8/416.9740.8/578.9 | -60-60 | -3.5-3.5 | -54-54 | -36-14 |
| Luteolin 3’,7’-diglucoside | 11.28 | 609.1/285609.1/447 | -70-70 | -7.5-7.5 | -28-28 | -50-32 |
| Quercetin 3,7-dirhamnoside | 11.35 | 592.8/445.7592.8/298.9 | -90-90 | -4-4 | -26-26 | -48-34 |
| Eriodictyol-7-*O*-rutinoside (Eriocitrin) | 11.93 | 594.8/286.9594.8/150.9 | -75-75 | -4.5-4.5 | -28-28 | -34-46 |
| Quercetin-3-*O*-rutinoside (Rutin) | 11.99 | 608.7/299.6608.7/270.9 | -90-90 | -8-8 | -30-30 | -46-60 |
| Kempferol 3,7-dirhamnoside (Kaempferitrin) | 12.16 | 576.8/284.8576.8/430.9 | -80-80 | -4.5-4.5 | -28-28 | -42-30 |
| Apigenin – 6-*C*-glucoside (Isovitexin) | 12.38 | 430.8/310.9430.8/340.9 | -65-65 | -4.5-4.5 | -18-18 | -28-26 |
| Apigenin – 8-*C*-glucoside (Vitexin) | 12.40 | 430.8/310.9430.8/340.9 | -75-75 | -4.5-4.5 | -20-20 | -26-34 |
| Quercetin-3-*O*-galactoside (Hyperoside) | 12.80 | 462.7/299.7462.7/254.7 | -70-70 | -4-4 | -18-18 | -28-42 |
| Luteolin-7-*O*-glucoside (Luteoloside) | 12.87 | 446.8/284.8446.8/132.9 | -70-70 | -10.5-10.5 | -20-20 | -30-78 |
| Quercetin-3-*O*-glucoside (Isoquercetin) | 13.00 | 462.7/299.7462.7/270.7 | -85-85 | -1.5-1.5 | -20-20 | -30-44 |
| Eriodictyol-7-*O*-glucopyranoside | 13.06 | 448.8/286.9448.8/134.9 | -75-75 | -4.5-4.5 | -20-20 | -24-48 |
| Kaempferol – 3-*O*-rutinoside (Nicotiflorin) | 13.31 | 592.7/284.8592.7/226.7 | -65-65 | -12-12 | -30-30 | -38-68 |
| Isorhamnetin-3-*O*-rutinoside (Narcissoside) | 13.52 | 622.8/314.9622.8/298.8 | -90-90 | -4.5-4.5 | -30-30 | -40-52 |
| Naringenin-7-*O*-rutinoside (Narirutin) | 13.80 | 578.9/270.8578.9/118.9 | -90-90 | -4.5-4.5 | -24-24 | -34-76 |
| Naringenin-7-*O*-rhamnosidoglucoside (Naringin) | 14.50 | 579.1/151579.1/271 | -80-80 | -4-4 | -26-26 | -54-42 |
| Kaempferol – 3-*O*-glucoside (Astragalin) | 14.66 | 446.7/226.8446.7/254.8 | -75-75 | -9-9 | -20-20 | -54-40 |
| Isorhamnetin-3-glucoside | 14.76 | 476.8/313.9476.8/270.9 | -95-95 | -10-10 | -22-22 | -30-44 |
| Quercetin 3-*O*-rhamnoside (Quercitrin) | 14.83 | 446.7/299.7446.7/270.7 | -65-65 | -9-9 | -18-18 | -30-40 |
| Apigenin 7-*O*-glucoside  | 14.91 | 430.7/267.7430.7/116.9 | -70-70 | -9-9 | -20-20 | -38-84 |
| Naringenin 7-*O*-glucoside | 15.12 | 432.7/270.8432.7/118.9 | -40-40 | -8.5-8.5 | -20-20 | -22-64 |
| Afzelin (Kaempferol 3-rhamnoside) | 15.9 | 431.1/284.9431.1/254.9 | -25-25 | -10-10 | -27.6-27.6 | -30-30 |
| Tiliroside | 17.39 | 592.8/284.8592.8/254.7 | -70-70 | -7.5-7.5 | -24-24 | -38-56 |

**Table S2.** Analytical parameters used for quantitative determination of phenolic acids and flavonoids detected in samples.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Compound** | **LOD****[ng/mL]** | **LOQ****[ng/mL]** | **R2** | **Linearity range****[ng/mL]** |
| **Phenolic acids** |
| Gallic acid | 900 | 1600 | 0.9988 | 1600-16000 |
| 3-Caffeoylquinic acid | 50 | 150 | 0.9992 | 150-15000 |
| Protocatechuic acid | 200 | 400 | 0.9988 | 1890-18900 |
| 5-Caffeoylquinic acid  | 75 | 180 | 0.9991 | 180-18000 |
| 4-Caffeoylquinic acid | 60 | 120 | 0.9990 | 150-15000 |
| Caffeic acid | 195 | 389 | 0.9991 | 389-19500 |
| Syringic acid | 500 | 732 | 0.9993 | 732-18300 |
| **Flavonoid aglycones** |
| Catechin | 250 | 330 | 0.9982 | 330-6600 |
| Luteolin | 6 | 16 | 0.9974 | 33-1650 |
| Eriodictyol | 33 | 66 | 0.9984 | 66-6600 |
| Quercetin | 66 | 132 | 0.9977 | 132-6600 |
| Apigenin | 15 | 22 | 0.9979 | 89-4470 |
| Isorhamnetin | 300 | 480 | 0.9993 | 850-5100 |
| Sakuranetin | 70 | 140 | 0.9991 | 140-6200 |
| **Flavonoid glycosides** |
| Eleutheroside E | 275 | 550 | 0.9989 | 1000-20000 |
| Luteolin 3’,7’-diglucoside | 250 | 500 | 0.9990 | 1250-25000 |
| Rutin | 150 | 300 | 0.9983 | 750-15000 |
| Hyperoside | 160 | 250 | 0.9983 | 500-25000 |
| Luteoloside | 50 | 100 | 0.9980 | 250-25000 |
| Isoquercetin | 160 | 250 | 0.9988 | 500-50000 |
| Eriodictyol-7-glucopyranoside | 150 | 300 | 0.9991 | 600-24000 |
| Nicotiflorin | 70 | 140 | 0.9993 | 140-60000 |
| Narcissoside | 75 | 150 | 0.9989 | 200-25000 |
| Astragalin | 100 | 250 | 0.9990 | 750-25000 |
| Isorhamnetin-3-glucoside | 100 | 225 | 0.9986 | 750-35000 |
| Quercitrin | 50 | 100 | 0.9986 | 1000-25000 |
| Apigenin 7-glucoside | 100 | 250 | 0.9989 | 750-25000 |
| Naringenin 7-*O*-glucoside | 100 | 167 | 0.9987 | 250-25000 |
| Afzelin | 10 | 20 | 0.9973 | 30-6000 |