

Application Report 271

Analysis of Hydrobenzoic acids, Hydroxycinnamic Acids and Flavonoids Using Ascentis™ RP-Amide

The suitability of the Ascentis RP-Amide for the separation of hydrobenzoic acids (gallic, vanillic, syringic), hydroxycinnamic acids (caffeic, p-coumaric), and flavonoids (rutin, quercitrin, myricetin, quercetin and (+)-catechin) is demonstrated.

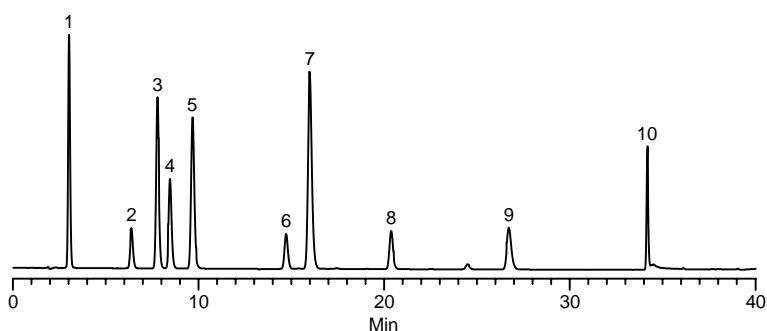
Key Words

Ascentis RP-Amide, 565324-U, gallic acid, G7384, 149-91-7, vanillic acid, H1252, 306-08-1, syringic acid, S6881, 530-57-4, caffeic acid, C0625, 331-39-5, p-coumaric acid, C9008, 501-98-4, rutin hydrate, R5143, 153-18-4, quercitrin hydrate, Q3001, 522-12-3, myricetin, M6760, 529-44-2, quercetin, Q0125, 6151-25-3, (+)-catechin hydrate, C1251, 88191-48-4

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Acquisition System: Waters Mt Hoyt

Notebook Reference: 1550



G003025

Conditions

column: Ascentis RP-Amide, 15 cm x 4.6 mm I.D., 5µm particles (565324-U)
mobile phase A: 0.085% orthophosphoric acid
mobile phase B: acetonitrile
flow rate: 1.0 mL/min.
temp: 30 °C
det: UV at 280 nm
injection: 10 µL
sample: as indicated in mobile phase A

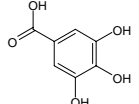
gradient:	Min	%A	%B
	0	85	15
	30	65	35
	35	15	85

Peak IDs

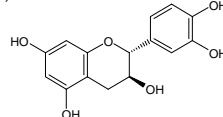
1. Gallic acid
2. (+) catechin
3. Syringic acid
4. Vanillic acid
5. Caffeic acid
6. Rutin
7. p-coumaric acid
8. Quercitrin
9. Myricetin
10. Quercetin

Structures

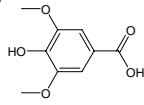
Gallic acid - G003015



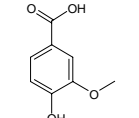
(+) catechin - G003024



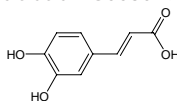
Syringic acid - G003017



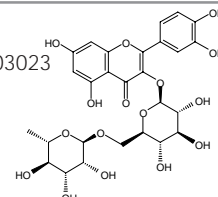
Vanillic acid - G003016



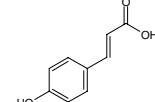
Caffeic acid - G003019



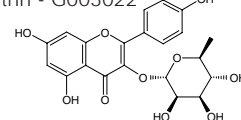
Rutin - G003023



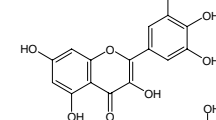
p-coumaric acid - G003018



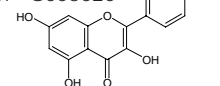
Quercitrin - G003022



Myricetin - G003021



Quercetin - G003020



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