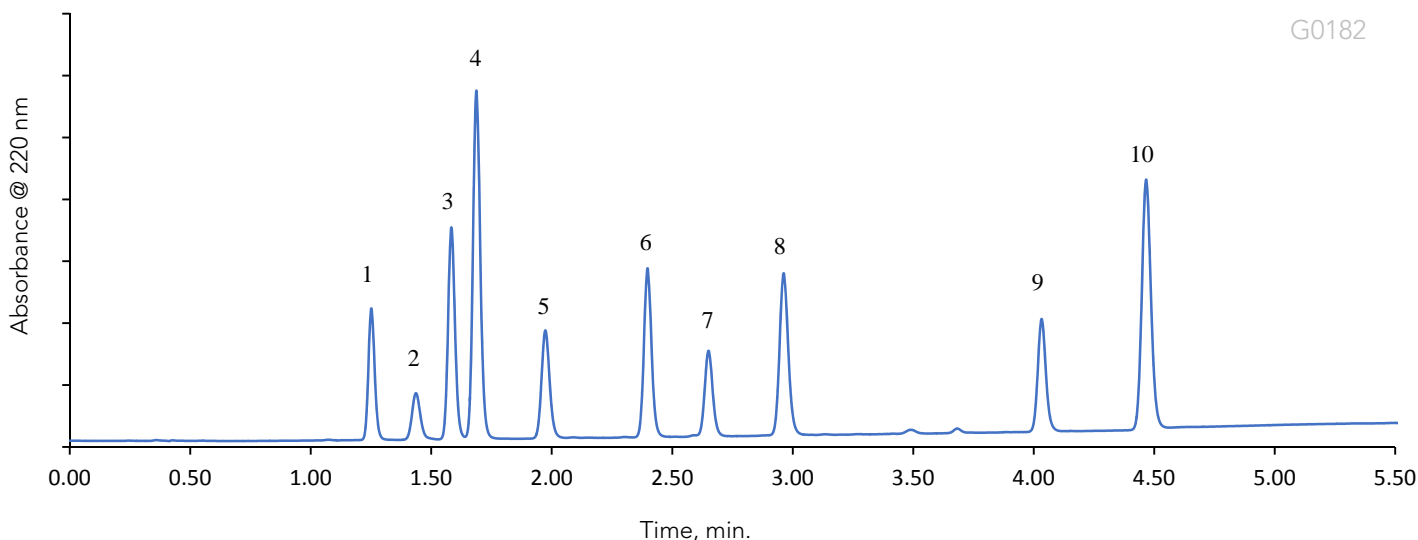


Separation of Phenolic Acids on HALO® 90 Å RPA, 2.7 µm



TEST CONDITIONS:

Columns: HALO 90 Å RPA, 2.7 µm, 2.1 x 100 mm
Part Number: 92812-607

Mobile Phase A: 20mM Phosphoric Acid

Mobile Phase B: Methanol

Gradient:

Time	%B
0.00	25
5.00	60
5.50	60

Flow Rate: 0.5 mL/min

Initial Pressure: 345 bar

Temperature: 35°C

Detection: UV 220 nm, PDA

Injection Volume: 0.7 µL

Sample Solvent: Methanol

Data Rate: 40 Hz

Response Time: 0.025 sec.

Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

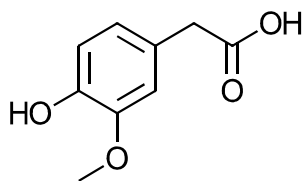
Structures on page 2

PEAK IDENTITIES:

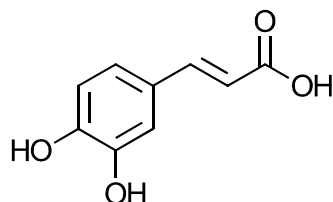
- | | |
|----------------------|--------------------------------|
| 1. Homovanillic acid | 6. Sinapic acid |
| 2. Caffeic acid | 7. Ferulic acid |
| 3. Syringic acid | 8. <i>p</i> -Coumaric acid |
| 4. Vanillic acid | 9. <i>trans</i> -Cinnamic acid |
| 5. Chlorogenic acid | 10. Resveratrol |

Phenolic acids can be found in many plant-based foods and beverages. Fruits, vegetables, and even olive oils all contain different varieties of these acids. For example, sinapic acid can be found in wine and caffeic acid can be found in coffee, cabbage, and apples. These compounds have antioxidant, anti-inflammatory, and antimicrobial properties so they can be effective against skin disorders. They also affect the flavors of the food or oil. A separation of ten phenolic acids is completed on a HALO® 90 Å RPA, 2.7 µm column with excellent speed and resolution.

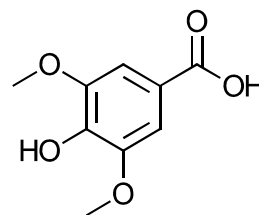
Structures of Phenolic Acids



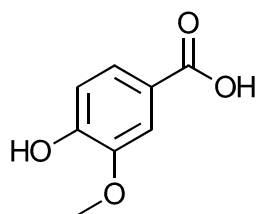
Homovanillic acid



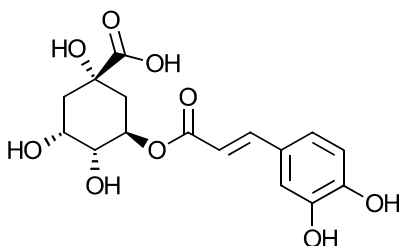
Caffeic acid



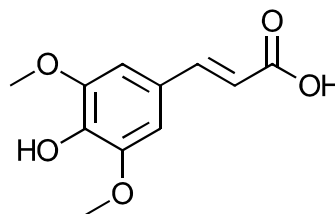
Syringic acid



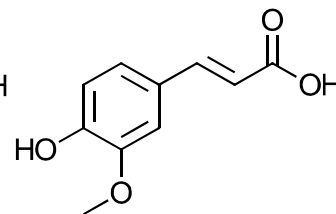
Vanillic acid



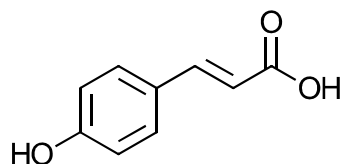
Chlorogenic acid



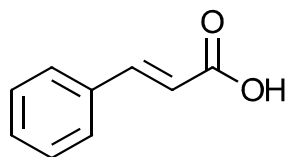
Sinapic acid



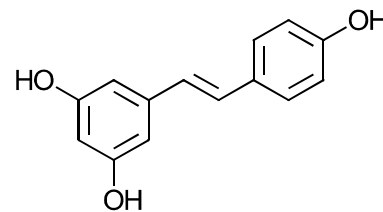
Ferulic acid



p-Coumaric acid

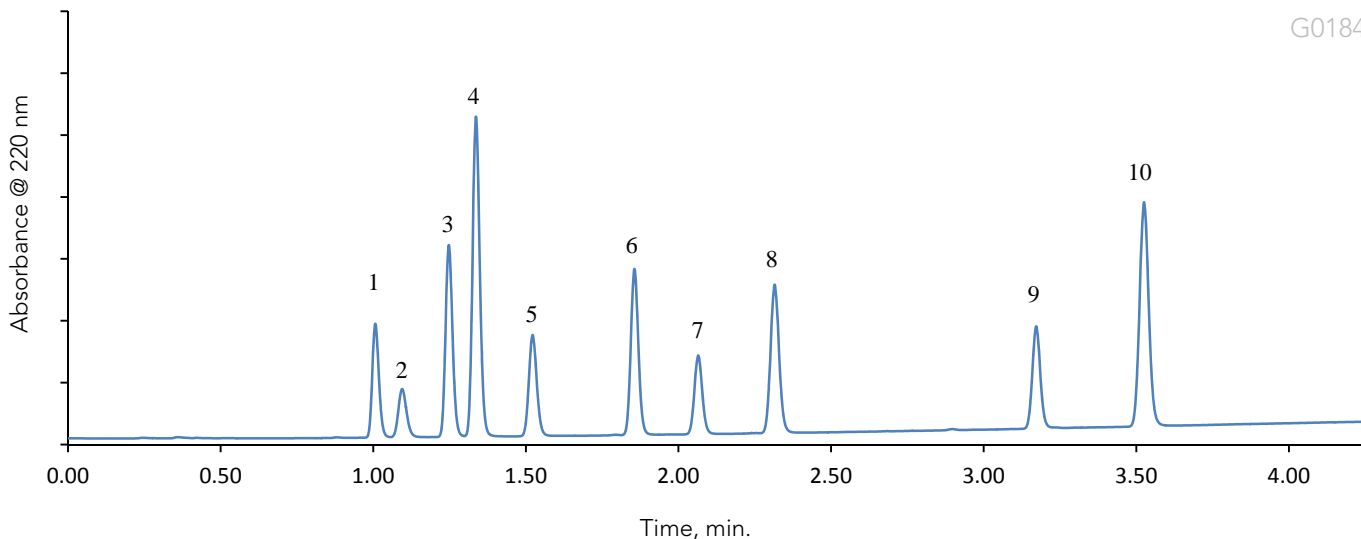


trans-Cinnamic acid



Resveratrol

Separation of Phenolic Acids on HALO 90 Å RP-Amide, 2 µm



TEST CONDITIONS:

Columns: HALO 90 Å RP-Amide, 2 µm, 2.1 x 100 mm
Part Number: 91812-607

Mobile Phase A: 20mM Phosphoric Acid

Mobile Phase B: Methanol

Gradient:	Time	%B
	0.00	30
	3.75	60
	4.25	60

Flow Rate: 0.5 mL/min

Initial Pressure: 716 bar

Temperature: 35°C

Detection: UV 220 nm, PDA

Injection Volume: 0.5 µL

Sample Solvent: Methanol

Data Rate: 40 Hz

Response Time: 0.025 sec.

Flow Cell: 1 µL

LC System: Shimadzu Nexera X2

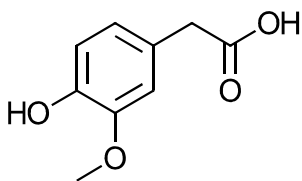
Structures on page 2

PEAK IDENTITIES:

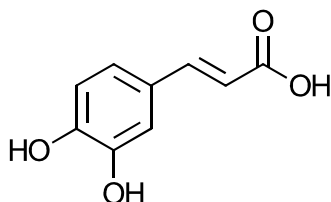
- | | |
|----------------------|---------------------------------|
| 1. Homovanillic acid | 6. Sinapic acid |
| 2. Caffeic acid | 7. Ferulic acid |
| 3. Syringic acid | 8. <i>p</i> - Coumaric acid |
| 4. Vanillic acid | 9. <i>trans</i> - Cinnamic acid |
| 5. Chlorogenic acid | 10. Resveratrol |

Phenolic acids can be found in many plant-based foods and beverages. Fruits, vegetables, and even olive oils all contain different varieties of these acids. For example, sinapic acid can be found in wine and caffeic acid can be found in coffee, cabbage, and apples. These compounds have antioxidant, anti-inflammatory, and antimicrobial properties so they can be effective against skin disorders. They also affect the flavors of the food or oil. A separation of ten phenolic acids is completed on a HALO® 90 Å RP-Amide, 2 µm column with excellent speed and resolution.

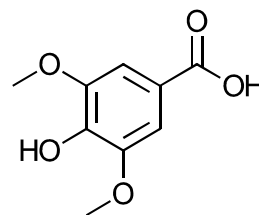
Structures of Phenolic Acids



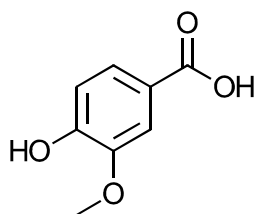
Homovanillic acid



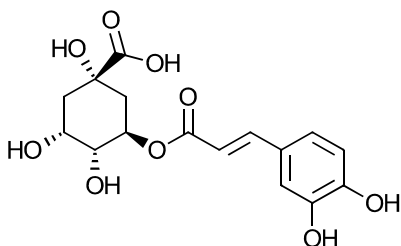
Caffeic acid



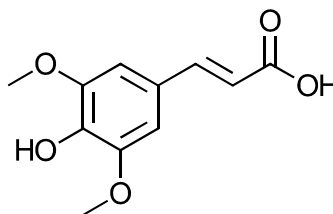
Syringic acid



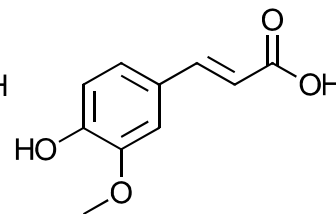
Vanillic acid



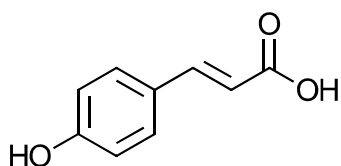
Chlorogenic acid



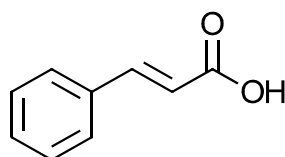
Sinapic acid



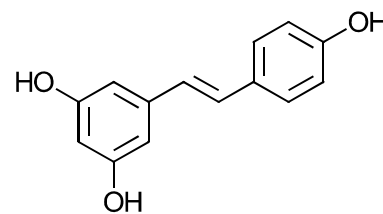
Ferulic acid



p- Coumaric acid



trans- Cinnamic acid



Resveratrol