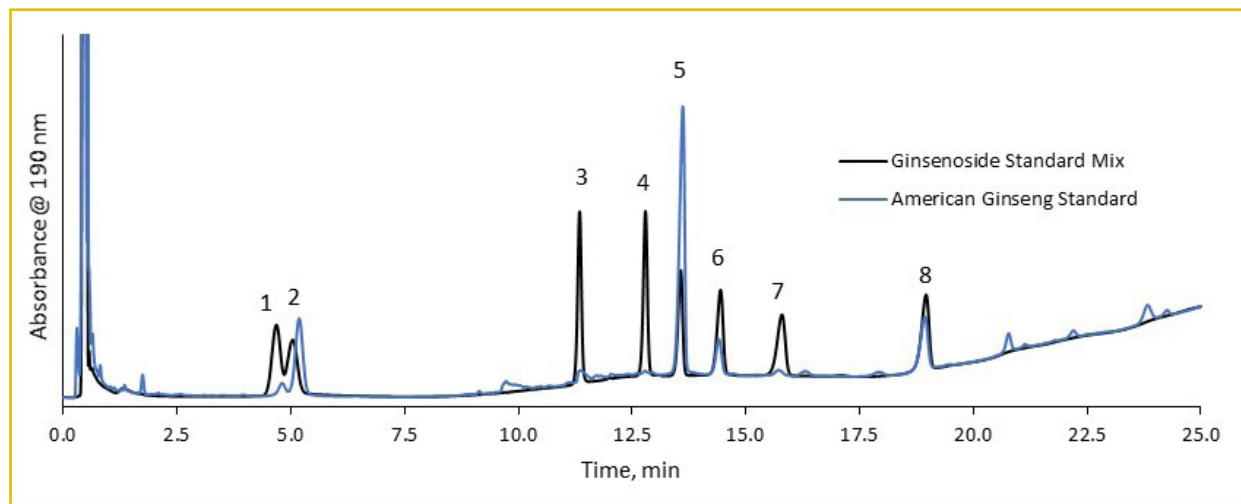




Ginseng Analysis using 5 µm HALO® C18

225-F



TEST CONDITIONS:

Column: HALO 90 Å C18, 5 µm 3.0 x 50 mm

Part Number: 95813-402

Mobile Phase A: Water

B: Acetonitrile

Gradient:	Time	%B
	0.0	19
	5.6	19
	11.6	29
	17.0	29
	25.0	40

Flow Rate: 0.425 mL/min

Pressure: 60 bar

Temperature: 30 °C

Detection: 190 nm

Injection Volume: 4 µl

Sample Solvent: Methanol

Data Rate: 100 Hz

Response Time: 0.025 sec.

Flow Cell: 1 µL

LC System: Shimadzu Nexera

PEAK IDENTITIES:

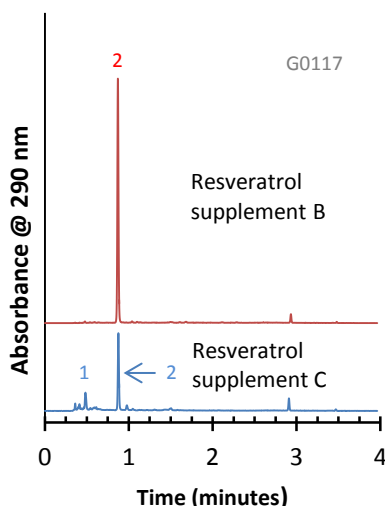
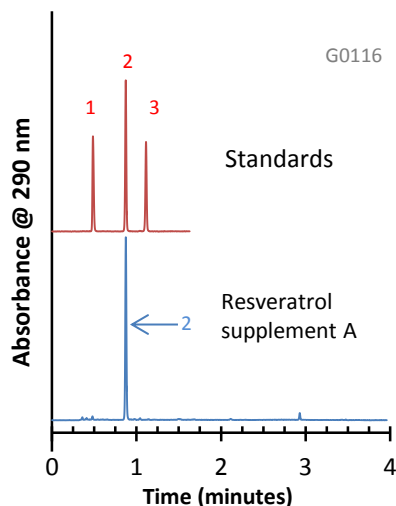
- | | |
|--------------------|--------------------|
| 1. Ginsenoside Rg1 | 5. Ginsenoside Rb1 |
| 2. Ginsenoside Re | 6. Ginsenoside Rc |
| 3. Ginsenoside Rf | 7. Ginsenoside Rb2 |
| 4. Ginsenoside Rg2 | 8. Ginsenoside Rd |

Ginseng root has been used as a traditional medicine for centuries. It is believed to benefit the immune system, brain function, and act as an antioxidant that may reduce inflammation. Ginseng can be prepared as a dietary supplement, an herbal tea, or even used in cooking.

Ginsenosides are a class of natural product steroid saponins primarily found in ginseng root. Ginseng root from *Panax quinquefolium* (American ginseng) is overlaid with a standard mixture of eight ginsenosides on a 5 µm HALO® C18 column showing excellent resolution at low back pressures.



Separation of Resveratrols on HALO C18, 2.7 µm



PEAK IDENTITIES:

1. Polydatin
2. *trans*-Resveratrol
3. *cis*-Resveratrol

TEST CONDITIONS:

Column: 4.6 x 75 mm, HALO C18, 2.7 µm

Part Number: 92814-502

Mobile Phase: A= water/B= acetonitrile

Gradient:	Time	%B
	0.0	30
	2.0	50
	3.0	90
	4.0	90

Flow Rate: 1.8 mL/min.

Pressure: 240 Bar

Temperature: 35°C

Detection: UV 290 nm, VWD

Injection Volume: 1.0 µL

Sample Solvent: 50/50-acetonitrile/methanol

Response Time: 0.02 sec.

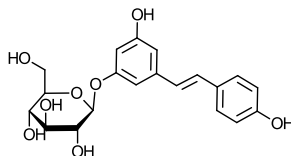
Data rate: 25 Hz

Flow Cell: 2.5 µL semi-micro

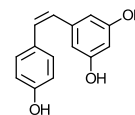
LC System: Shimadzu Prominence UFLC XR

ECV: ~14 µL

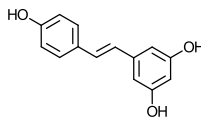
STRUCTURES:



Polydatin



cis-Resveratrol



trans-Resveratrol

Resveratrols are polyhydroxy compounds and have been reported to have antioxidant and anti-aging properties and are available as food supplements. These food supplements can be analyzed rapidly using short HALO Fused-Core C18 columns.

Resveratrol supplement tablets were extracted overnight using 15 mL of a 50/50 mixture of methanol and acetonitrile. The extracts were then filtered through a 0.45 µm porosity nylon membrane. This filtered solution was further diluted 1:10 using the 50/50 mixture of methanol and acetonitrile before analysis.