

**Conditions**

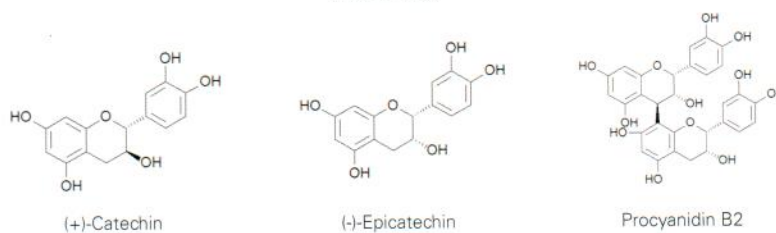
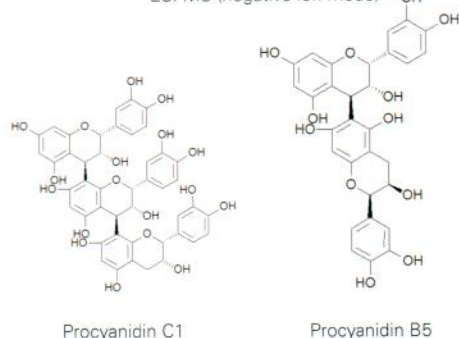
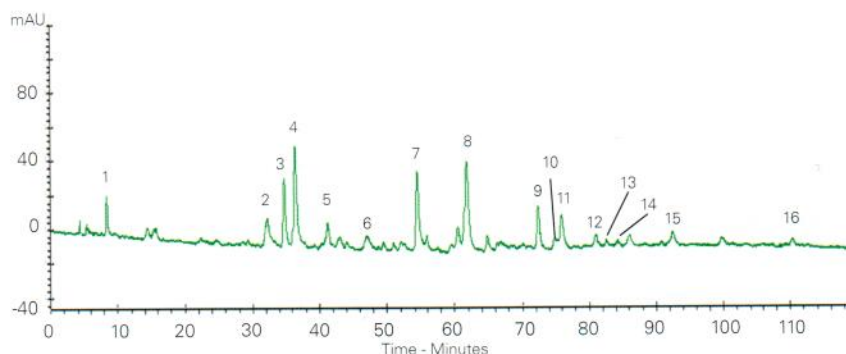
**Column:** ACE 3 C18-AR  
**Dimensions:** 200 x 4.6 mm  
**Part Number:** ACE-119-2046  
**Mobile Phase:** A: 2% acetic acid in H<sub>2</sub>O  
 B: 2% acetic acid in MeCN  
**Gradient:**

Times (mins)	%B
0	0
80	20
115	28
120	100
130	100

**Flow Rate:** 0.6 mL/min  
**Detection:** UV, 280 nm  
 Peak identities established by combination of retention times, UV, fluorescence, NMR and ESI-MS (negative ion mode)

**Analytes**

- Gallic acid
- Procyanidin B3 (dimer) + procyanidin C2 (trimer)
- Procyanidin B1 (dimer)
- (+)-Catechin
- Procyanidin C3 (trimer)
- Procyanidin B4 (dimer)
- Procyanidin B2 (dimer)
- (-)-Epicatechin
- Procyanidin B3 gallate (dimer)
- Procyanidin B7 (dimer)
- Procyanidin C1 (trimer)
- Procyanidin tetramer
- Procyanidin pentamer
- Procyanidin hexamer
- (-)-Epigallocatechin
- Procyanidin B5 (dimer)



Grases F, Prieto R, Fernandez-Cabot R, Costa-Bauza A, Sanchez A, Prodanov M (2015) Effect of consuming a grape seed supplement with abundant phenolic compounds on the oxidative status of healthy human volunteers. Nutrition Journal 14:94 (2015) doi: 10.1186/s12937-015-0083-3

**Phenols in Purple Coneflower (Echinacea Purpurea)**

Application #AN2920

**Conditions**

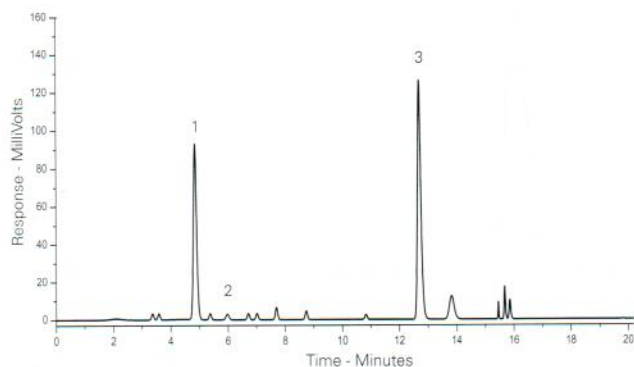
**Column:** ACE 5 C18  
**Dimensions:** 250 x 4.6 mm  
**Part Number:** ACE-121-2546  
**Mobile Phase:** A: 0.1% H<sub>3</sub>PO<sub>4</sub> in H<sub>2</sub>O  
 B: MeCN  
**Gradient:**

Time (mins)	%B
0	10
13	22
14	40

**Flow Rate:** 1.5 mL/min  
**Injection:** 10 µL  
**Temperature:** 35 °C  
**Detection:** UV, 330 nm

**Analytes**

- Caftaric acid
- Chlorogenic acid
- Cichoric acid



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Available from



Echinacea Purpurea

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