## HALO





## Separation of Common Catechins and Caffeine Found in Tea via LC-UV



## **PEAK IDENTITIES**

- 1. Gallic Acid
- 2. Gallocatechin
- 3. Epigallocatechin
- 4. Catechin
- 5. Caffeine
- 6. Epicatechin
- 7. Epigallocatechin Gallate
- 8. Gallocatechin Gallate
- 9. Epicatechin Gallate
- 10. Catechin Gallate

## **TEST CONDITIONS:**

Flow Rate: 1

**Column:** HALO 90 Å LPH-C18 2.7 μm, 4.6 x150 mm **Part Number:** 92824-716 **Mobile Phase A:** Water, 0.2% Formic Acid (pH: 2.45) **Mobile Phase B:** Acetonitrile, 0.2% Formic Acid **Gradient: Time %B** 

Time	70E
0.0	10
0.5	10
6.0	23
7.0	23
.8 mL/min	
5 bar	
:40 °C	

**Pressure:** 395 bar **Temperature:** 40 °C **Detection:** PDA, UV 270 nm **Injection Volume:** 5 μL **Sample Solvent:** 90/10 Water/ Acetonitrile **LC System:** Shimadzu Nexera X2 Catechins belong to the subgroup of polyphenols called flavonoids. These compounds contain antioxidant properties and exist in food and medicinal plants, including tea. A UV separation of catechin and caffeine standards shows excellent resolution on a HALO<sup>®</sup> LPH-C18 column. This column is ideal for low pH separations due to its sterically protected ligand, preventing acid hydrolysis and reducing retention drift over time.



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