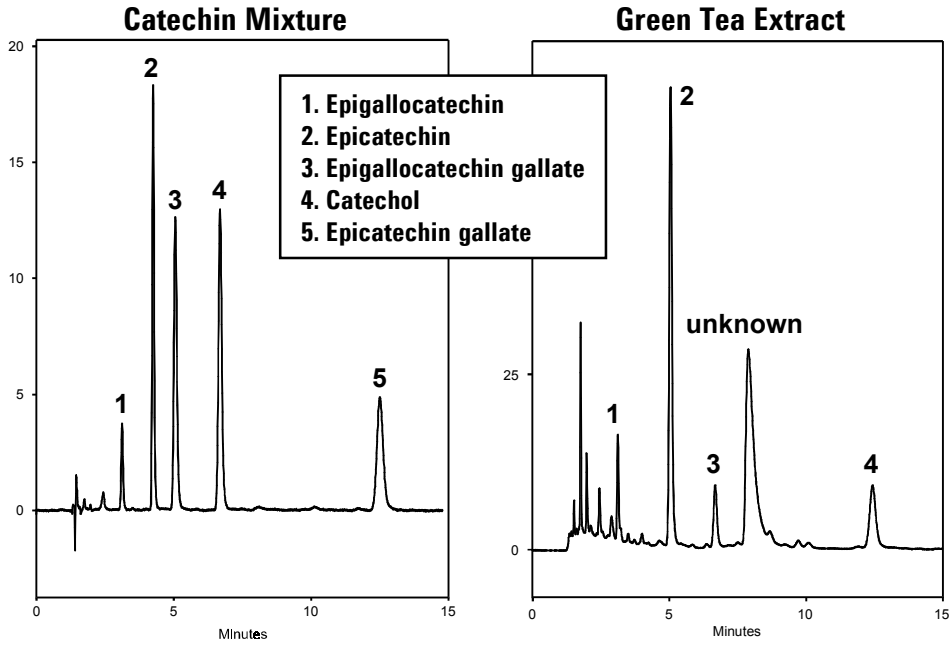
Epigallocatechin 3-O-Gallate Extract from Green Tea

Application

Food Analysis

Robert Ricker

Epigallocatechin 3-O-gallate (EGCG) belongs to a class of compounds called flavonoids and is further subclassified as a flavanol, due to the level of oxidation in its chemical structure. This compound has been recognized as a cancer-preventive compound due to its ability to inhibit urokinase, an enzyme which has been associated with excelerated tumor cell growth. Due to the interest in holistic-type, preventative medicine approaches in today's society, a method was developed for a series of catechins and an actual extract of green tea to serve as a general interest application.



ZORBAX SB-C8 (4.6 x 150 mm; 3.5 µm) (Agilent Part No. 863953-906)
Mobile Phase: 75% 0.1% Trifluoroacetic acid: 25% Methanol
Inj. Vol. 5 µL, 1 mL/min, 40°C
Det. UV (280 nm)

Highlights

- *Good peak shape and resolution are maintained for a group of catechins on Agilent ZORBAX SB-C8 at low pH.*
- *Sterically protected bonded phases, like SB-C8, offer extended column lifetime even with TFA-containing (low-pH) mobile phases.*
- *Good retention of the catechins allows adequate separation from other UV-absorbing compounds in the actual tea extract.*

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