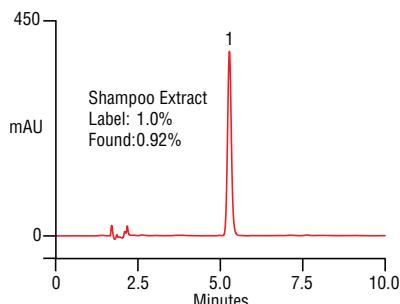


Ketoconazole in Anti-Dandruff Shampoo on a Thermo Scientific™ Acclaim™ 120 C18 Column



Column: Thermo Scientific™ Acclaim™ 120 C18
3 µm, 4.6 x 150 mm
Pump: Thermo Scientific™ Dionex™
Summit P680A DGP
Mobile Phase: 2.55 g $\text{Bu}_4\text{N}^+\text{HSO}_4^-$, 750 mL water,
250 mL acetonitrile
Flow: 1.0 mL/min
Temperature: TCC-100 thermostat at 30°C
Injection: ASI-100 sampler at 4 µL
Detector: UVD-340U, UV 223 nm
Sample Prep: – Weigh 400 mg shampoo
(equivalent to 4 mg ketoconazole)
into a flask
– Disperse in 3.0 mL water
– Dilute to 10.0 mL with MeOH
– Filter
Peaks: 1. Ketoconazole, approx. 400 µg/mL
Reference: U.S. Pharmacopeia 29th Ed.,
p.1216 (2006).

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Ketoconazole is an antifungal agent used both internally and as a topically treatment for dandruff. Here an Acclaim C18 column easily resolves this active ingredient from shampoo, a matrix that is complex and can be difficult to analyze.