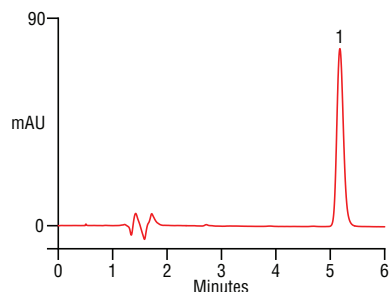


Loperamide in Anti-Diarrhea Tablets on a Thermo Scientific™ Acclaim™ 120 C8 Column



Column: Thermo Scientific™ Acclaim™ 120 C8
 3 μ m, 4.6 \times 150 mm
 Pump: Thermo Scientific™ Dionex™
 Summit P680A DGP
 Mobile Phases: (A) Acetonitrile
 (B) 3.0 g Et₃N HCl + 1.0 mL H₃PO₄
 in 550 mL water.
 Isocratic: 45% A, 55% B (v/v)
 Flow: 1.2 mL/min
 Temperature: TCC-100 thermostat at 30 °C
 Injection: ASI-100 sampler at 20 μ L
 Detector: UVD-340U, UV 214 nm
 Sample Prep: – Weigh and grind 20 tablets
 – Take an aliquot equivalent
 to 16 mg loperamide HCl
 – Add 40 mL of 5% H₂PO₄ (v/v)
 and 200 mL of methanol
 – Make to 2000 mL with water
 – Filter
 Peak: 1. Loperamide HCl
 Reference: USP, 29th Ed, p1290 (2006).

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Loperamide is the active ingredient in many formulations used to treat diarrhea. The U.S. Pharmacopeia assay specifies an L7 column be used for this analysis. Here the Acclaim 120 C8 column is used for determination of this compound.