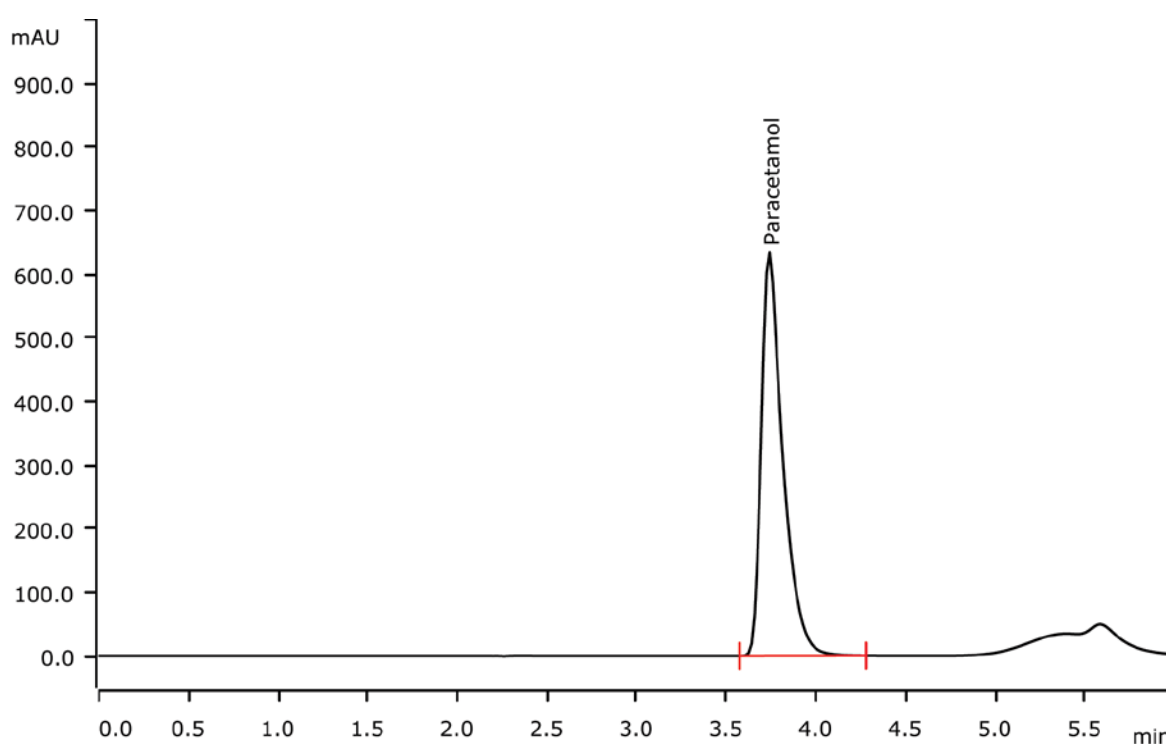# Paracetamol in tablets with fully automated sample preparation using the 815 Robotic Soliprep for LC

Paracetamol is a very effective analgesic and antipyretic drug. Using the presented sample preparation, its determination in tablets by reversed-phase chromatography and UV detection is straightforward. The fully automated 815 Robotic Soliprep for LC takes over everything, starting from the tablet dissolution, homogenizing and filtration to the injection with a 250 nL internal loop.

Results

	Concentration [mg/tablet]	RSD [%] n = 3	Recovery [%]
Paracetamol	198.1	0.9	99.5

Ω Metrohm

Sample

Paracetamol tablet

Sample preparation

Fully automated dissolution, homogenizing, filtration and injection.

Columns

Prontosil 120-5-C18 AQ - 150/4.0	6.1008.100
Prontosil 120-5-C18 AQ Guard/4.0	6.1008.110

Solutions

Eluent	20 mmol/L sulfuric acid 15% acetonitrile
Liquid Handling	Ultrapure water
Solvent	Ultrapure water

Analysis

UV/VIS detection

Instrumentation

930 Compact IC Flex Oven	2.930.2100
944 Professional UV/VIS Detector Vario	2.944.0010
815 Robotic Soliprep for LC	2.815.4110
Internal Loop IC equipment: 4-port stator and 0.25 µL rotor	6.5334.000
Dispersing aggregate for Polytron, 157 mm	6.9012.010

Parameters

Flow rate	0.9 mL/min
Injection volume	250 nL (internal loop)
P_{max}	35 MPa
Recording time	6 min
Column temperature	30 °C
Wave length	250 nm
Bandwidth	5 nm
Measuring duration	1000 ms

Ω Metrohm