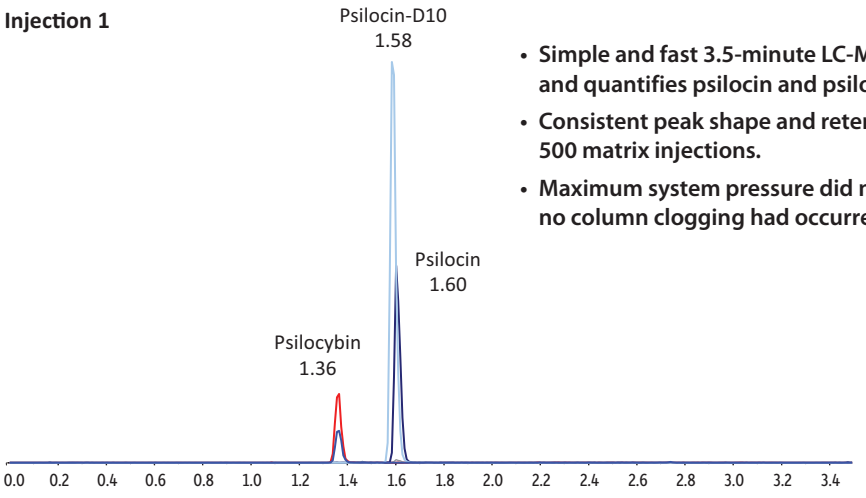
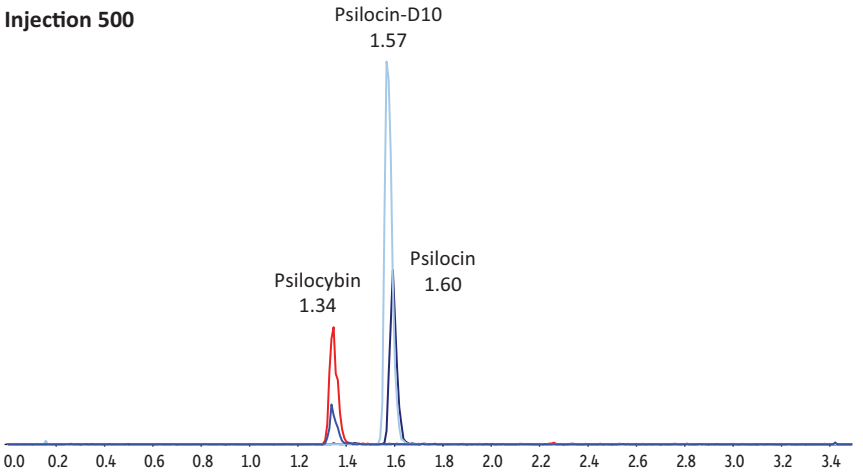
Column Lifetime Test: Psilocin and Psilocybin in Urine on Raptor Biphenyl



- **Simple and fast 3.5-minute LC-MS/MS method separates and quantifies psilocin and psilocybin in human urine.**
- **Consistent peak shape and retention time even after 500 matrix injections.**
- **Maximum system pressure did not change, indicating no column clogging had occurred.**



LC_CF0771

Peaks	Conc. (ng/mL)	Precursor Ion	Product Ion 1	Product Ion 2
1. Psilocybin	500	285.1	205.1	240.0
2. Psilocin-D10	200	215.1	66.1	-
3. Psilocin	500	205.1	160.1	115.0

Column Raptor Biphenyl (cat.# 9309A52)
Dimensions: 50 mm x 2.1 mm ID
Particle Size: 2.7 µm
Pore Size: 90 Å
Guard Column: Raptor Biphenyl EXP guard column cartridge 5.0 mm, 2.1 mm ID, 2.7 µm (cat.# 9309A0252)
Temp.: 35 °C
Standard/Sample
Diluent: Water, 0.1% formic acid + 2 mM ammonium formate
Conc.: 500 ng/mL
Inj. Vol.: 5 µL
Mobile Phase
A: Water, 0.1% formic acid + 2 mM ammonium formate
B: Methanol, 0.1% formic acid + 2 mM ammonium formate

Time (min)	Flow (mL/min)	%A	%B
0.00	0.5	95	5
0.20	0.5	95	5
2.50	0.5	5	95
2.51	0.5	95	5
3.50	0.5	95	5

Detector MS/MS
Ion Source: Electrospray
Ion Mode: ESI+
Mode: MRM
Instrument HPLC
Sample Preparation A 500 ng/mL standard mix of psilocin and psilocybin was prepared in pooled urine. A 50 µL aliquot was taken from the standard and mixed with 10 µL of internal standard (psilocin-D10, 20 µg/mL) and 100 µL of methanol. The mixture was vortexed at 3000 rpm for 10 seconds and centrifuged at 4300 rpm for 10 minutes at 10 °C. After centrifugation, 100 µL of the supernatant was diluted with 900 µL (20-fold dilution) of water containing 0.1% formic acid and 2 mM ammonium formate (mobile phase A) and injected for LC-MS/MS analysis.