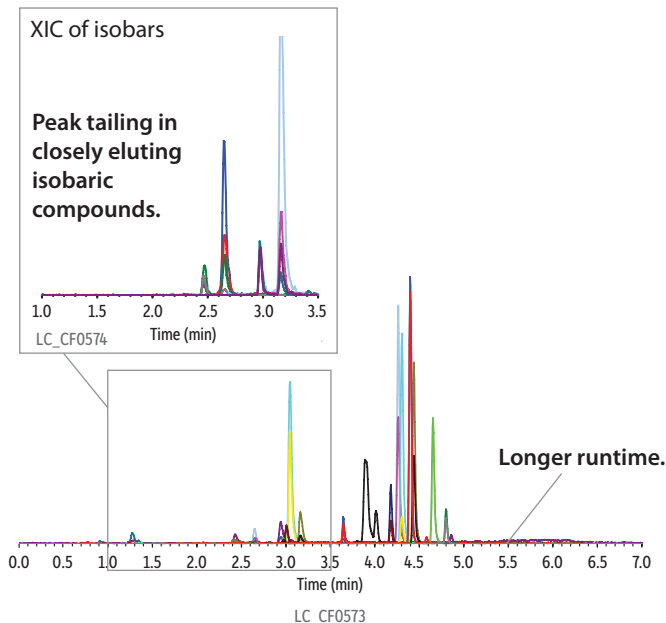


Pain Panel in Urine on Kinetex® Phenyl-Hexyl (50 x 4.6 mm) by LC-MS/MS



Peaks	t _R (min)	Precursor ion	Product ion 1	Product ion 2
1. Oxymorphone	2.46	302.1	227.3	198.2
2. Morphine*	2.48	286.2	152.3	165.3
3. Hydromorphone*	2.66	286.1	185.3	128.2
4. Amphetamine	2.92	136.0	91.3	119.2
5. Codeine*	2.97	300.2	165.4	153.2
6. Oxycodone	3.01	316.1	241.3	256.4
7. Methamphetamine	3.03	150.0	91.2	119.3
8. Hydrocodone*	3.16	300.1	199.3	128.3
9. Meprobamate	3.65	219.0	158.4	97.2
10. Norbuprenorphine	3.92	414.1	83.4	101.0
11. Carisoprodol	4.18	261.2	176.3	158.1
12. Fentanyl	4.26	337.2	188.4	105.2
13. Flurazepam	4.30	388.2	315.2	288.3
14. Lorazepam	4.40	321.0	275.4	303.1
15. Methadone	4.44	310.2	265.3	105.3
16. Sufentanil	4.65	387.2	238.5	111.3
17. Diazepam	4.80	285.1	193.2	153.9
18. Buprenorphine	4.86	468.3	396.4	414.5

*An extracted ion chromatogram (XIC) of the isobars is presented in the inset.

Column: Kinetex® Phenyl-Hexyl (cat.# 008-4495-E0); Dimensions: 50 mm x 4.6 mm ID; Particle Size: 2.6 µm; Pore Size: 100 Å; Temp.: 22 °C; **Sample:** Diluent: urine:mobil phase A:mobil phase B (17:76:7); Conc.: 10-100 ng/mL; Inj. Vol.: 10 µL **Mobile Phase:** A: 10 mM ammonium formate in water, B: 0.1% formic acid in methanol; **Gradient (%B):** 0.00 min (5%), 4.00 min (100%), 5.00 min (100%), 5.10 min (5%), 7.00 min (5%); **Flow:** 0.6 mL/min; **Detector:** AB SCIEX API 4000™ MS/MS; Ion Source: TurbolonSpray®; Ion Mode: ESI+; **Instrument:** API LC-MS/MS; **Notes:** Lorazepam was prepared at 100 ng/mL; all other analytes are 10 ng/mL. Column and conditions used were specifically recommended or published by the manufacturer for this assay.