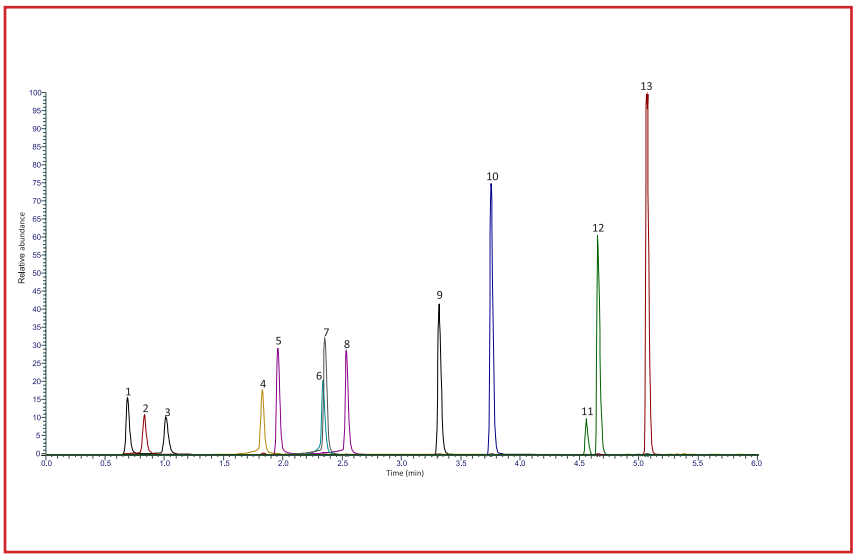
HALO®

CLINICAL / TOXICOLOGY

LC-MS Separation of Pain Management Opiates on HALO® Biphenyl, 2.0 µm

Application Note 192-OP



PEAK IDENTITIES:	m/z
1. Morphine	286
2. Oxymorphone	302
3. Hydromorphone	286
4. Naloxone	328
5. Codeine	300
6. Naltrexone	342
7. Oxycodone	316
8. Hydrocodone	300
9. cis-Tramadol	264
10. Meperidine	248
11. Fentanyl	337
12. Buprenorphine	468
13. (±)-Methadone	310

The 2.0 µm HALO® Biphenyl is an ideal choice for high throughput analysis of drug panels, in which isobaric species separation is needed. Note the resolution between codeine and hydrocodone, (peaks 1 and 3, respectively) and morphine and hydromorphone (peaks 5 and 8, respectively).

TEST CONDITIONS:

Column: HALO 90 Å Biphenyl, 2.0 µm, 2.1 x 100 mm
Part Number: 91812-611
Mobile Phase:
A: Water/0.1% formic acid
B: Acetonitrile/0.1% formic acid

Gradient:

Time (min)	% B
0.00	10
2.22	20
5.00	60
5.50	60
5.51	10
6.50	END

Flow Rate: 0.4 mL/min
Initial Pressure: 325 bar
Temperature: 40 °C
Detection: +ESI MS
Injection Volume: 1.0 µL
Sample Solvent: 95/5 water/acetonitrile
LC System: Shimadzu Nexera X2

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Made in the USA | halocolumns.com

via neera 8/a 20141 Milano
Tel. +39 02.8954201 - Fax +39 02.89542022
www.cps.it - cps@cps.it

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