

# HPLC Application

ID No.: 25783

## Chiral Separation of Dextromethorphan/Levomethorphan and Dextrorphan/Levorphanol on Lux 3u AMP, 150x4.6

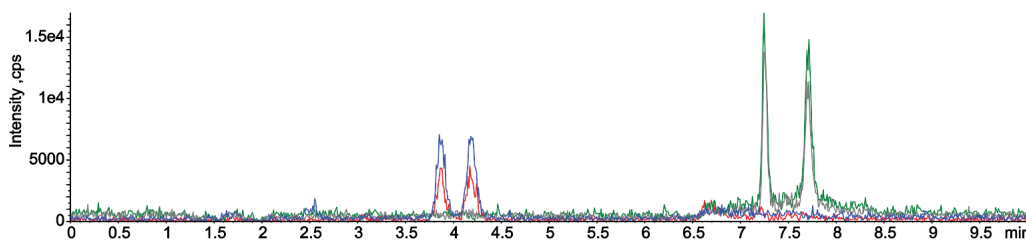
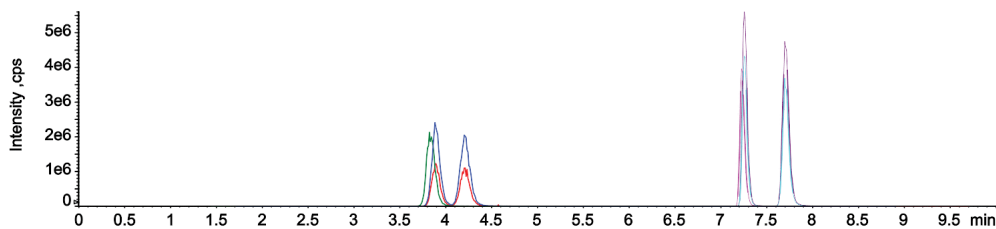
**Column:** Lux<sup>®</sup> 3  $\mu$ m AMP, LC Column 150 x 4.6 mm, Ea  
**Dimensions:** 150 x 4.6 mm ID  
**Order No:** 00F-4751-E0  
**Elution Type:** Gradient  
**Eluent A:** 5mM ammonium bicarbonate, adjusted to pH 11 with ammonium hydroxide  
**Eluent B:** Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	55	45
	2	4.5	55	45
	3	4.6	20	80
	4	8	20	80
	5	8.1	55	45
	6	10	55	45

**Flow Rate:** 1 mL/min  
**Col. Temp.:** 40 °C  
**Detection:** LC/MS/MS @ (ambient)  
**Analyst Note:** Urine hydrolyzed with beta-glucuronidase and extracted with Strata-X-C



Products used in this application:



### ANALYTES:

- 1 Dextrorphan 1  
Retention Time: 3.85 min
- 2 Dextrorphan 2  
Retention Time: 3.85 min
- 3 Levorphanol 1  
Retention Time: 4.17 min
- 4 Levorphanol 2  
Retention Time: 4.17 min
- 5 Dextromethorphan 1  
Retention Time: 7.24 min
- 6 Dextromethorphan 2  
Retention Time: 7.24 min
- 7 Levomethorphan 1  
Retention Time: 7.69 min
- 8 Levomethorphan 2  
Retention Time: 7.69 min

©2024 Phenomenex Inc. All rights reserved.

For more information contact your Phenomenex Representative at [support@phenomenex.com](mailto:support@phenomenex.com)



Phenomenex products are available worldwide.

[www.phenomenex.com](http://www.phenomenex.com)

[support@phenomenex.com](mailto:support@phenomenex.com)

# Sample Preparation Details

for HPLC Application ID No.: 25783

## Chiral Separation of Dextromethorphan/Levomethorphan and Dextrorphan/Levorphanol on Lux 3u AMP, 150x4.6

### PRODUCT DESCRIPTION:

Strata<sup>™</sup>-X-C 33 µm Polymeric Strong Cation, 30 mg / well, 96-Well Plates , 2/Pk

Order No.: 8E-S029-TGB

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

#### Condition:

---

#### Load:

---

#### Wash:

---

#### Dry:

---

#### Elute:

---

### Final Prep and Analysis:

---

Urine sample pretreatment: Combine 200µL urine sample, 200µL 100mM ammonium acetate buffer (pH 4.0), 20µL internal standard solution (250ng/mL), and 20µL of beta-glucuronidase

Inject: 10 µL on HPLC LC/MS/MS @ (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Dextrorphan 1	0				
2 Dextrorphan 2	0				
3 Levorphanol 1	0				
4 Levorphanol 2	0				
5 Dextromethorphan 1	0				
6 Dextromethorphan 2	0				
7 Levomethorphan 1	0				
8 Levomethorphan 2	0				

**Note:** This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

©2024 Phenomenex Inc. All rights reserved.

For more information contact your Phenomenex Representative at support@phenomenex.com



Phenomenex products are available worldwide.

[www.phenomenex.com](http://www.phenomenex.com)

[support@phenomenex.com](mailto:support@phenomenex.com)