

Coated and Immobilized Polysaccharide Chiral Phases that Offer Broad Enantioselectivity

Lux coated and immobilized chiral columns are guaranteed to perform similar to or better than the equivalent DAICEL Chiral Technologies column of matching polysaccharide backbone and chiral selector at considerable cost savings. Lux phases can also provide alternative selectivity to other chiral selectors when separation is not achieved or when higher resolution is required.

Technical Specifications

Particle Size	3, 5, 10 ¹ , 20 ¹ μm
pH Stability	2-9
Stability	Normal phase, polar organic, SFC, and reversed phase conditions
Maximum Pressure	300 bar
Temperature Range	0-50 °C
Shipping Solvent	n-Hexane/2-propanol (9:1, v/v)
Switching Solvent	Methanol/Ethanol (9:1, v/v)

¹Please inquire for availability

Resolve Over 92% of Your Enantiomers with Our Eight Coated and Immobilized Phases!

Lux i-Amylose-1
Amylose tris
(3,5-dimethylphenylcarbamate)

Lux i-Amylose-3
Amylose tris
(3-chloro-5-methylphenylcarbamate)

Lux i-Cellulose-5
Cellulose tris
(3,5-dichlorophenylcarbamate)

Immobilized Lux Columns

Lux Cellulose-1
Cellulose tris
(3,5-dimethylphenylcarbamate)

Lux Cellulose-2
Cellulose tris
(3-chloro-4-methylphenylcarbamate)

Lux Cellulose-3
Cellulose tris
(4-methylbenzoate)

Lux Cellulose-4
Cellulose tris
(4-chloro-3-methylphenylcarbamate)

Lux Amylose-1
Amylose tris
(3,5-dimethylphenylcarbamate)

Coated Lux Columns

Easily upgrade from your existing chiral columns to Lux LC/SFC columns!

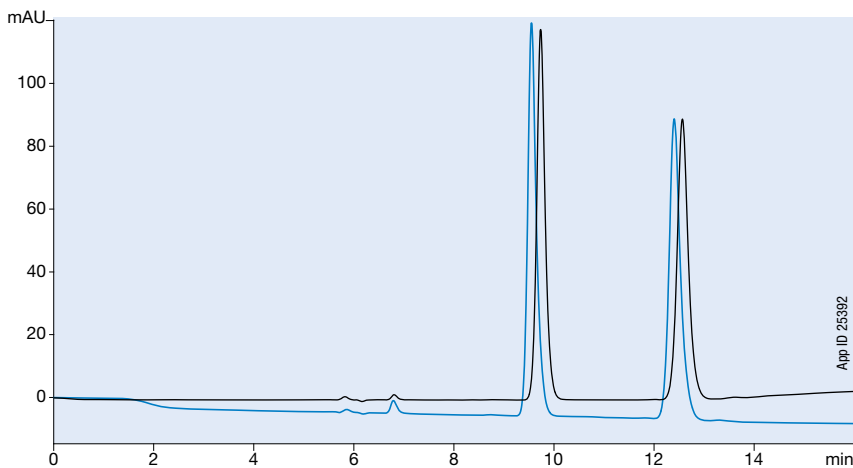
If you are using one of the DAICEL® columns below:	Guaranteed alternative:	Phase description:
CHIRALPAK® IA®	Lux i-Amylose-1	Amylose tris(3,5-dimethylphenylcarbamate)
CHIRALPAK IG® and IG-3	Lux i-Amylose-3	Amylose tris(3-chloro-5-methylphenylcarbamate)
CHIRALPAK IC® and IC-3	Lux i-Cellulose-5	Cellulose tris(3,5-dichlorophenylcarbamate)
CHIRALPAK AD®, AD-H®, AD-3, AD-RH®, and AD-3R	Lux Amylose-1	Amylose tris(3,5-dimethylphenylcarbamate)
CHIRALCEL® OD®, OD-H®, OD-3, OD-RH®, and OD-3R	Lux Cellulose-1	Cellulose tris(3,5-dimethylphenylcarbamate)
CHIRALCEL OZ, OZ-H®, OZ-3, OZ-RH, and OZ-3R	Lux Cellulose-2	Cellulose tris(3-chloro-4-methylphenylcarbamate)
CHIRALCEL OJ®, OJ-H®, OJ-3, OJ-RH®, and OJ-3R	Lux Cellulose-3	Cellulose tris(4-methylbenzoate)
CHIRALCEL OX-H, OX-3, OX-RH, and OX-3R	Lux Cellulose-4	Cellulose tris(4-chloro-3-methylphenylcarbamate)

Lux Immobilized Chiral Selectors

The immobilization and bonding technology used within the Lux i-Amylose-3 promotes column stability in strong organic solvents, which affords you the ability to expand your chiral separation success with more solvent systems and separation modes. Below is an example of stable retention time, separation, and peak shape

after exposure to strong solvents for both 5 and 3 µm particle sizes. The exposure to aggressive solvents DCM and THF did not affect the excellent performance of these Lux i-Amylose-3 columns. In addition, bonding technology that promotes robust reproducibility.

Strong Solvent Stability and Robustness



*Aggressive solvent stability was tested by flushing columns with DCM followed by THF before rerunning in mobile phase.

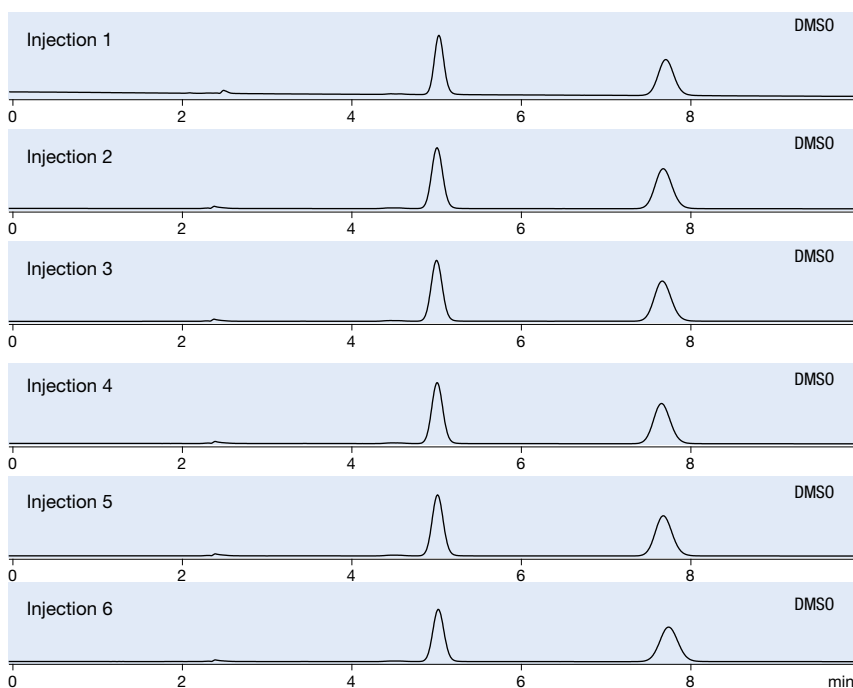
Conditions for all separations:

Columns: Lux 5 µm i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: [00G-4779-E0](#)
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80/20)
Flow Rate: 0.5 mL/min
Injection Volume: 10 µL (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Trans-Stilbene Oxide
 2. Trans-Stilbene Oxide

■ Before Exposure to Strong Solvents (DCM & THF)*
 ■ After Exposure

Load Samples in Desired Strong Solvents

With the strong solvent stability of the Lux immobilized phases (i-Amylose-3, i-Cellulose-5 and i-Amylose-1) comes the ability to keep samples diluted in the strong organic solvents that are needed for sample solubility or are directly from a reaction mixture.

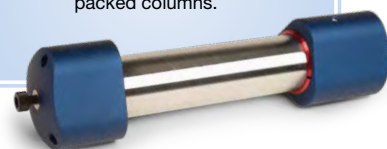


Conditions for all separations:

Column: Lux 5 µm i-Cellulose-5
Dimensions: 250 x 4.6 mm
Part No.: [00G-4756-E0](#)
Mobile Phase: Methanol/DEA (100:0.1)
Flow Rate: 1.5 mL/min
Detection: UV @ 280 nm
Temperature: 27 °C
Sample: Laudanosine
Dilution Solvent: Dimethyl Sulfoxide (DMSO)

Solve compound solubility issues

by loading in strong organic solvents for preparative purifications on extremely robust Lux i-Amylose-3, i-Cellulose-5 and i-Amylose-1 AXIA™ packed columns.



Lux Chiral Stationary Phases

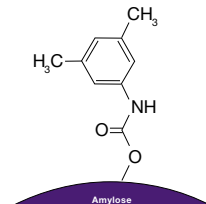
The Lux line of coated and immobilized cellulose-based and amylose-based chiral stationary phases includes eight complementary selectivities.



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

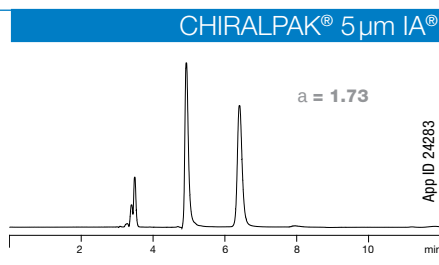
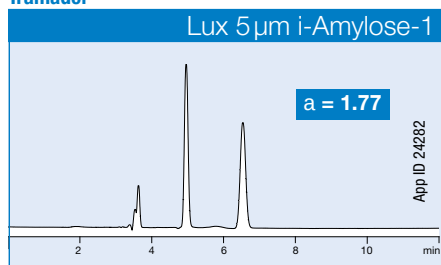
Lux i-Amylose-1: Immobilized 3,5-Dimethyl Phenylcarbamate Selector

Known to have broad enantio-recognition, this incredibly popular Amylose tris (3,5-dimethylphenylcarbamate) chiral selector provides polar, electrostatic, hydrophobic, van der Waals, and other retention mechanisms.



Amylose tris(3,5-dimethylphenylcarbamate)

Tramadol



Conditions for both columns:

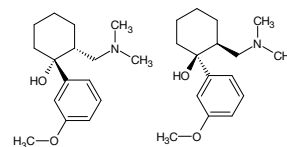
Dimensions: 250 x 4.6 mm

Mobile Phase: 0.1 % DEA in Hexane /
0.1 % DEA in IPA (90:10)

Flow Rate: 1 mL/min

Detection: UV @ 270 nm

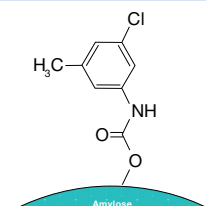
Temperature: Ambient



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

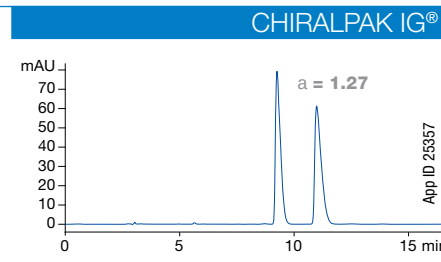
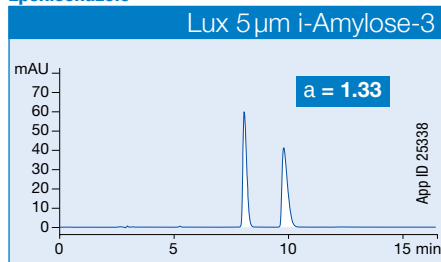
Lux i-Amylose-3: Immobilized 3-Chloro, 5-Methyl Phenylcarbamate Selector

Lux immobilized chiral stationary phases provide complementary but distinct enantioselectivity for a wide range of chirality. In addition, the immobilization process allows for the use of a wide range of mobile phases and strong solvents, making the Lux immobilized phases an ideal set of chiral phases to start screening with.



Amylose tris(3-chloro-5-methylphenylcarbamate)

Epoxiconazole



Conditions for both columns:

Dimensions: 250 x 4.6 mm

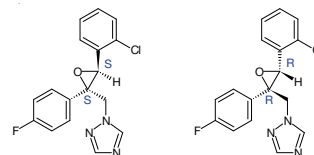
Mobile Phase: Water with 5 mM Ammonium
Acetate + 0.05 %
Formic Acid/Acetonitrile
(35:65)

Flow Rate: 1.0 mL/min

Injection Volume: 10 μL (2 mg/mL)

Detection: UV @ 254 nm

Temperature: Ambient



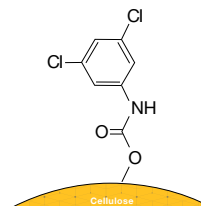
Columns used for comparison were manufactured by DAICEL Corporation. Phenomenex is in no way affiliated with DAICEL Corporation. Comparative separations may not be representative of all applications.



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

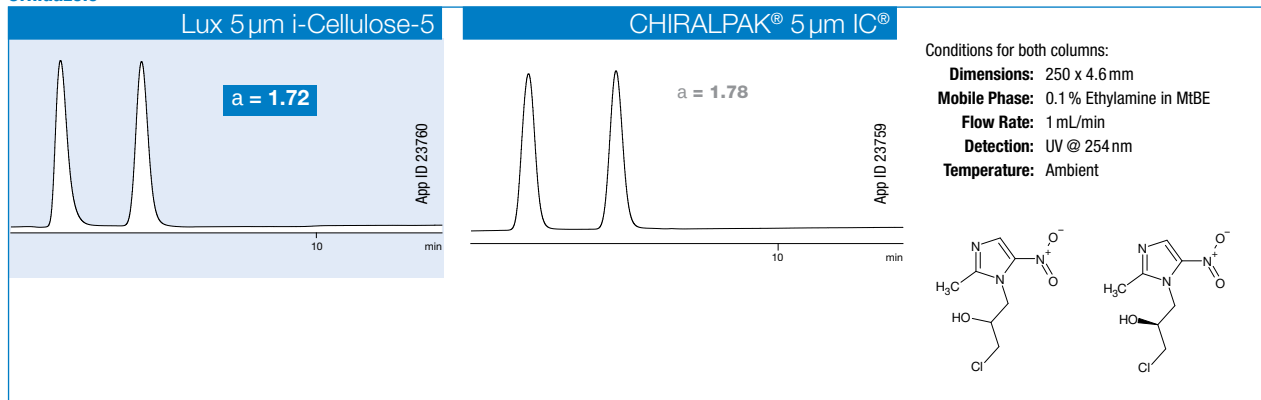
Lux i-Cellulose-5: Immobilized 3,5-Dichloro Phenylcarbamate Selector

The dichlorophenyl-moiety part of the i-Cellulose-5 selector creates a novel chiral selectivity by way of having two strong electron accepting atoms that draw the electron cloud of the phenyl ring outward.



Cellulose tris(3,5-dichlorophenylcarbamate)

Omidazole

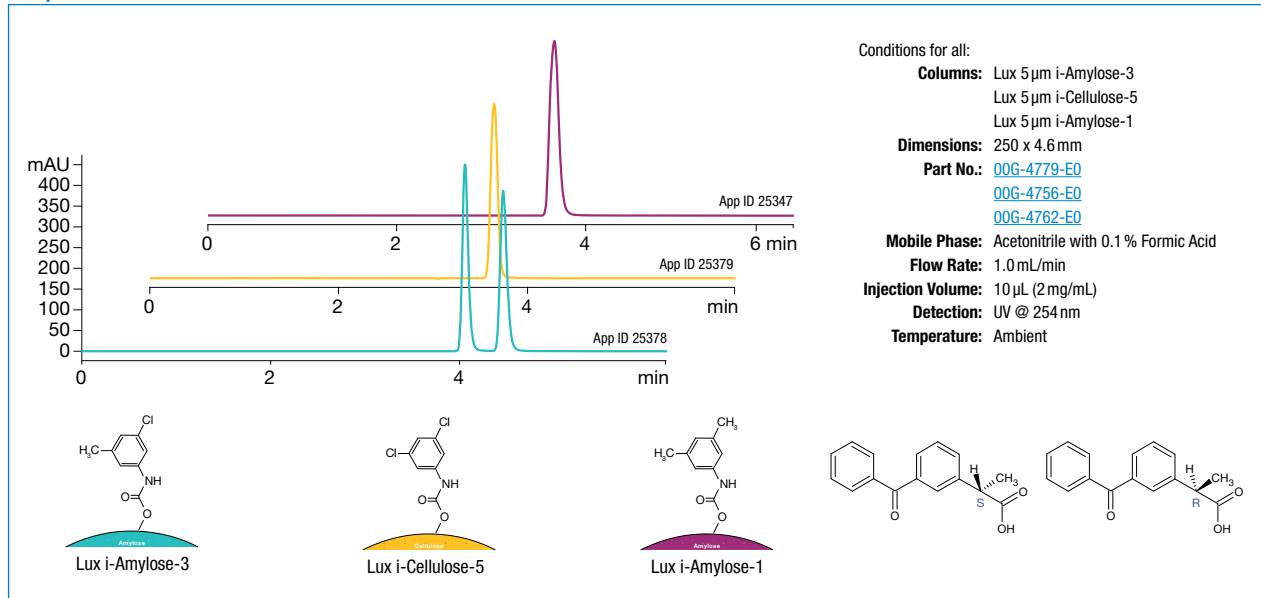


Columns used for comparison were manufactured by DAICEL Corporation. Phenomenex is in no way affiliated with DAICEL Corporation. Comparative separations may not be representative of all applications.

Immobilized Selectivity Comparison

Lux immobilized chiral columns offer a wide and complementary range of enantioselectivity for chiral separation projects under normal phase, reversed phase, polar ionic, or SFC separation modes. Below is an example of chiral screening using i-Amylose-3, i-Cellulose-5, and i-Amylose-1 under polar ionic conditions.

Ketoprofen

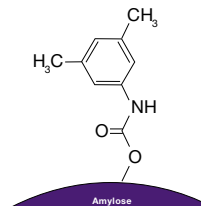




Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

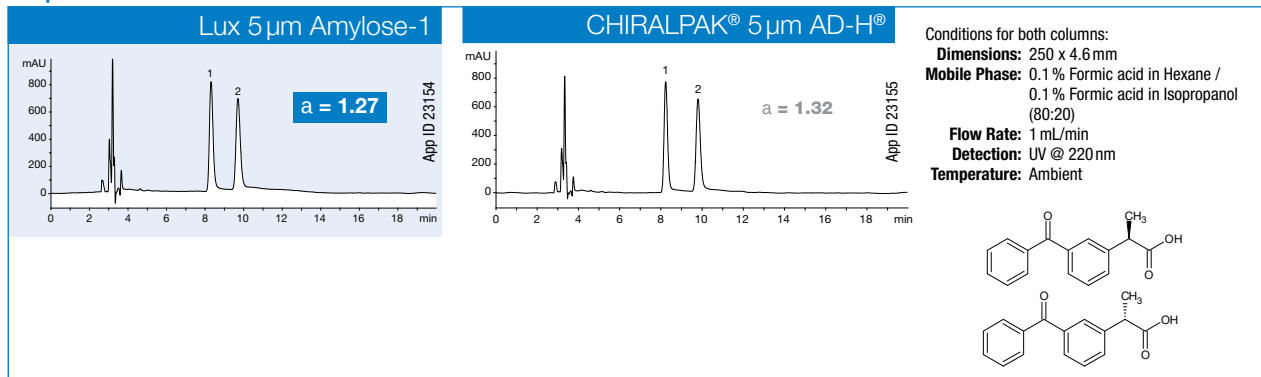
Lux Amylose-1: Coated 3,5-Dimethyl Phenylcarbamate Selector

This universally trusted amylose phenylcarbamate derivative is absolutely essential to any chiral screen. Lux Amylose-1 is a guaranteed alternative to CHIRALPAK® AD®. Expect equivalent or better performance when using this Lux phase.



Amylose tris(3,5-dimethylphenylcarbamate)

Ketoprofen



Chiral Screening

For more information or to begin a project today, please contact your local Phenomenex representative.



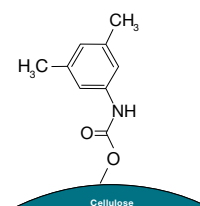
www.phenomenex.com/contact



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

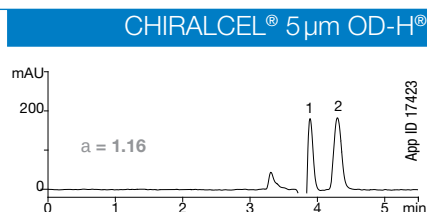
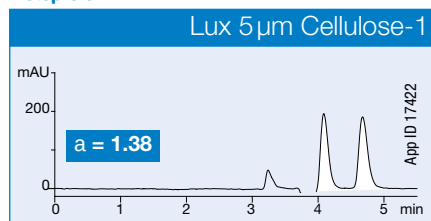
Lux Cellulose-1: Coated 3,5-Dimethyl Phenylcarbamate Selector

This universally trusted cellulose phenylcarbamate derivative is absolutely essential to any chiral screen. Guaranteed alternative to CHIRALCEL® OD-H®. Expect equivalent or better performance.



Cellulose tris(3,5-dimethylphenylcarbamate)

Metoprolol



Conditions for both columns:

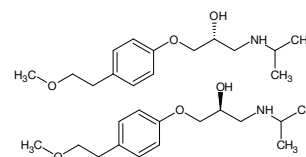
Dimensions: 250 x 4.6 mm

Mobile Phase: 0.1 % Diethylamine in Acetonitrile /
0.1 % Diethylamine in Isopropanol (95:5)

Flow Rate: 1 mL/min

Detection: UV @ 220 nm

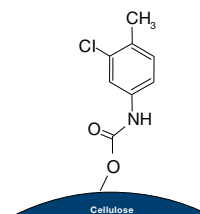
Temperature: Ambient



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

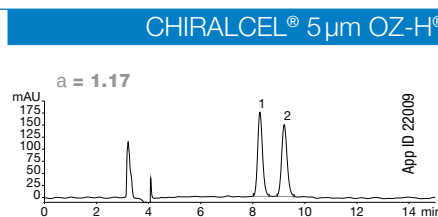
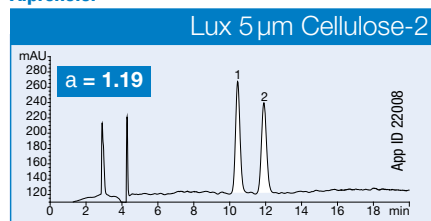
Lux Cellulose-2: Coated 3-Chloro, 4-Methyl Phenylcarbamate Selector

This first-to-market halogenated cellulose phenylcarbamate derivative offers unique chiral recognition abilities that complement the rest of the Lux family of columns.



Cellulose tris(3-chloro-4-methylphenylcarbamate)

Alprenolol



Conditions for both columns:

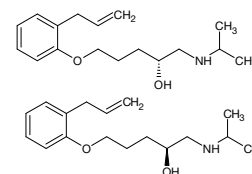
Dimensions: 250 x 4.6 mm

Mobile Phase: 0.1 % Diethylamine in Hexane /
0.1 % Diethylamine in Ethanol (90:10)

Flow Rate: 1 mL/min

Detection: UV @ 220 nm

Temperature: Ambient



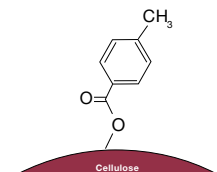
Comparative separations may not be representative of all applications.



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

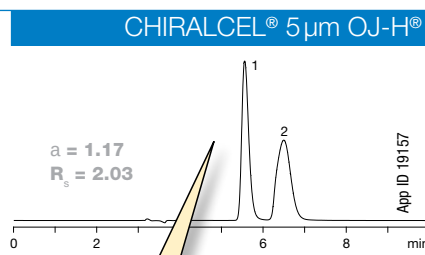
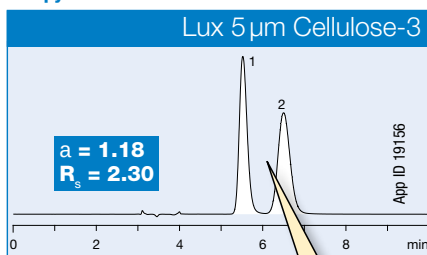
Lux Cellulose-3: Coated 4-Methyl Phenylacetate Selector

This cellulose methylbenzoate derivative offers distinct and complementary chiral recognition abilities.



Cellulose tris(4-methylbenzoate)

Disopyramide



Similar Lux phases can offer equivalent, if not better, performance when compared to CHIRALCEL® and CHIRALPAK®

Conditions for both columns:

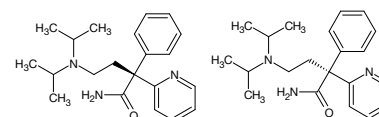
Dimensions: 250 x 4.6 mm

Mobile Phase: 0.1 % Diethylamine in Hexane /
0.1 % Diethylamine in Ethanol
(90:10)

Flow Rate: 1 mL/min

Detection: UV @ 220 nm

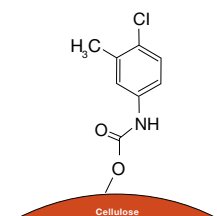
Temperature: Ambient



Excellent separation at a fraction of the cost of DAICEL/Chiral Technologies.

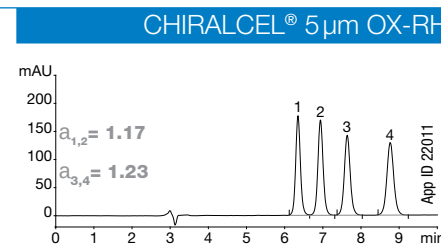
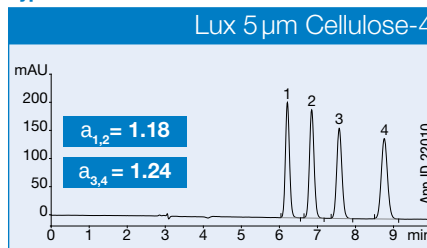
Lux Cellulose-4: Coated 4-Chloro, 3-Methyl Phenylcarbamate Selector

This chlorinated cellulose phenylcarbamate derivative offers unique chiral recognition abilities.



Cellulose tris(4-chloro-3-methylphenylcarbamate)

Cyproconazole



Conditions for both columns:

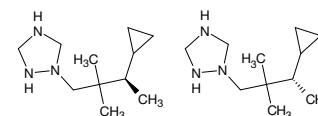
Dimensions: 250 x 4.6 mm

Mobile Phase: 0.1 % Diethylamine in Acetonitrile /
0.1 % Diethylamine in 20 mM
Ammonium bicarbonate
(60:40)

Flow Rate: 1 mL/min

Detection: UV @ 220 nm

Temperature: Ambient

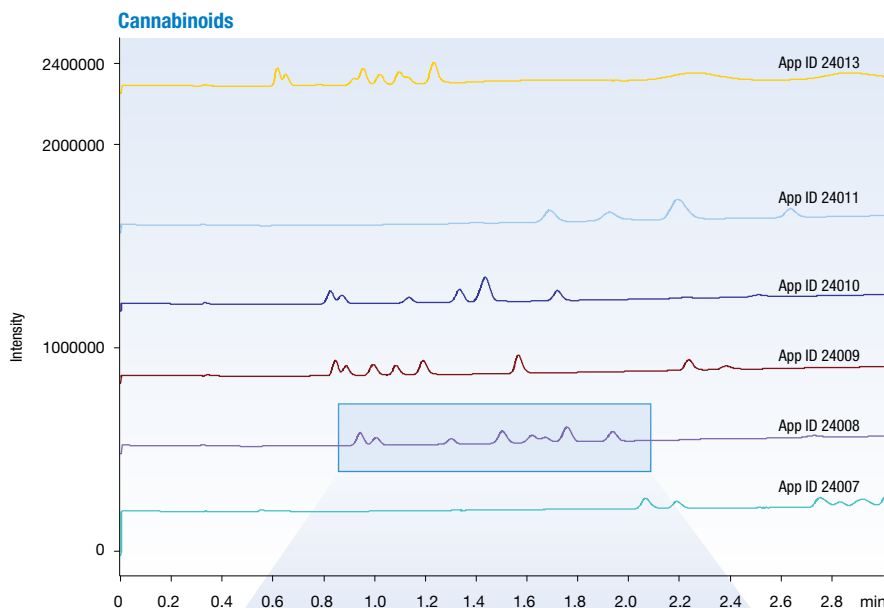


Comparative separations may not be representative of all applications.

Achiral SFC Success with Chiral Columns!

While the incredible range of interaction mechanisms (polar, electrostatic, hydrophobic, van der Waals, and others) present in each Lux material are fundamental for ensuring baseline separation of chiral compounds, these same interaction mechanisms can also be used as an excellent screening tool for achiral work. Here we

present an achiral screening of natural cannabinoids using 7 Lux selectivities under one SFC mobile phase. The initial resolution and separation provided by the Lux Cellulose-2 was then further optimized to provide even greater resolution.



Conditions for all columns:

Columns: Lux 3 µm i-Cellulose-5
Lux 3 µm Amylose-1
Lux 3 µm Cellulose-4
Lux 3 µm Cellulose-3
Lux 3 µm Cellulose-2
Lux 3 µm Cellulose-1

Dimensions: 150 x 3.0 mm

Mobile Phase: A: Carbon Dioxide
B: Methanol

Gradient	Time (min)	% B
	0	5
	2.5	25
	3	25

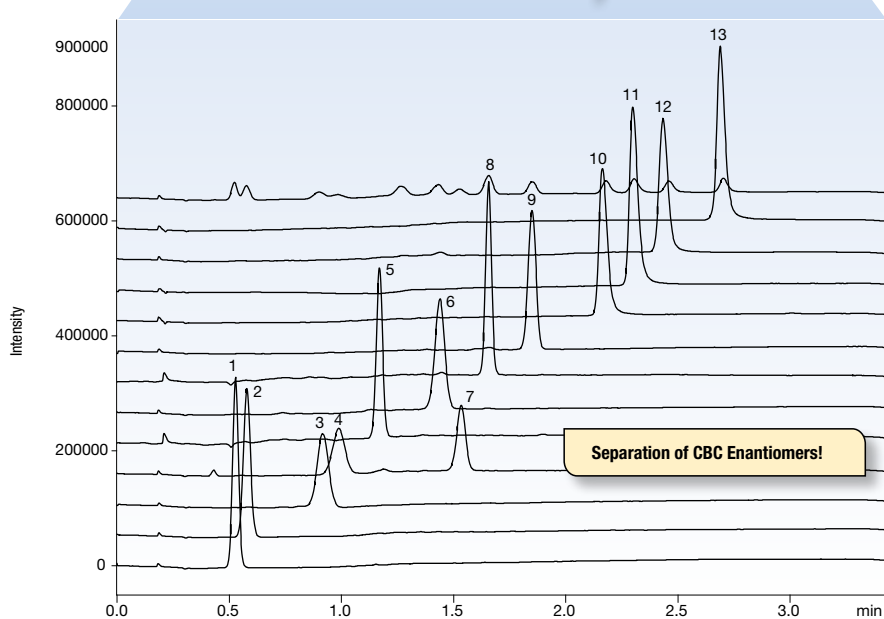
Flow Rate: 3 mL/min

Detection: UV @ 220 nm

Temperature: 40 °C

Sample: Cannabinoid mix of 8

Expanded and optimized method separates achiral and chiral species!



Separation of CBC Enantiomers!

Column: Lux 3 µm Cellulose-2

Dimensions: 150 x 3.0 mm

Part No.: 00F-4456-Y0

Mobile Phase: A: Carbon Dioxide
B: Methanol

Gradient	Time (min)	% B
	0	4
	3	25
	3.5	25

Flow Rate: 5 mL/min

Detection: UV @ 220 nm

Temperature: 40 °C

Sample: Cannabinoid mix of 12

- | | |
|-----------------------|-----------|
| 1. CBDV | 8. THCV |
| 2. CBN | 9. CBG |
| 3. Delta-8-THC | 10. CBDA |
| 4. CBC (Enantiomer 1) | 11. CBDVA |
| 5. CBD | 12. THCA |
| 6. Delta-9-THC | 13. CBGA |
| 7. CBC (Enantiomer 2) | |



Axia™ Chiral Columns Out Perform Other Prep Columns

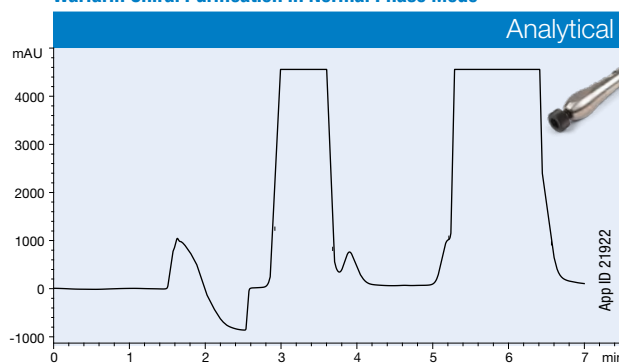
Axia specialized preparative hardware shows higher performance than traditionally packed standard hardware preparative columns. This revolutionary packing technology paired with Lux polysaccharide-based chiral stationary phases provide purification results like no other chiral column can provide.

To better understand how much Axia technology improves column performance over traditionally slurry packed preparative columns we scaled-up a 5 µm Lux Cellulose-1 chiral media analytical column and packed the same media into two different 150 x 21.2 mm ID

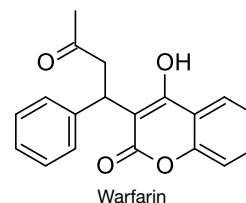
columns. One column was packed using Axia technology and the other prep column was packed using the traditional slurry packing process.

The Axia packing technology had a substantial increase in column efficiency resulting in increased resolution over traditionally packed preparative columns. With increased resolution you are able to increase your sample load enabling you to purify more target compound(s) per purification run. This equates to better throughput and economics.

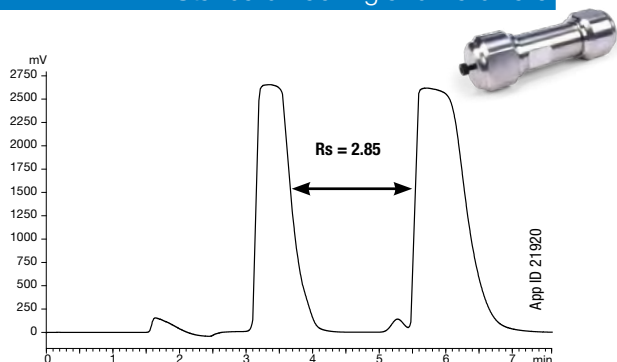
Warfarin Chiral Purification in Normal Phase Mode



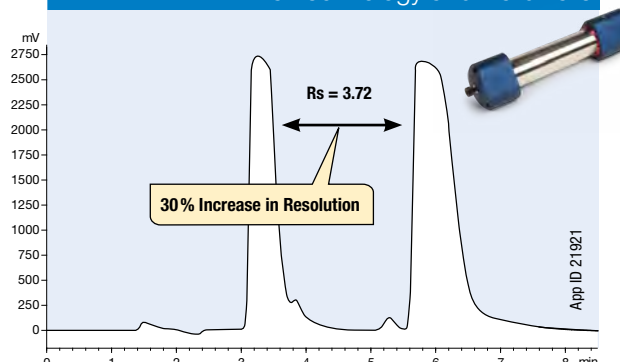
Column: Lux 5 µm Cellulose-1
Dimensions: 150 x 4.6 mm
Mobile Phase: Hexane/Ethanol (75:25)
Flow Rate: 1 mL/min
Temperature: Ambient
Inj. Volume: 100 µL



Standard Packing and Hardware



Axia Technology and Hardware



Conditions for both columns:
Media: Lux 5 µm Cellulose-1
Dimensions: 150 x 21.2 mm
Mobile Phase: Hexane / Ethanol (75:25)

Flow Rate: 20 mL/min
Temperature: Ambient
Inj. Volume: 2 mL

42% Increase in Efficiency

Column (mm)	Analytical 150 x 4.6	Standard 150 x 21.2	Axia 150 x 21.2
Mass Loaded (mg)	2	40	40
Resolution*	1.5	2.85	3.72
Plates (N)	117	535	760

* Resolution calculated with peak width at baseline and center retention time due to the overloaded peaks being off-scale

“We have used Phenomenex Axia prep-HPLC columns for several years and they consistently provide excellent separation and reproducibility for a variety of different compounds.”

Jeremy R. Wolf
ABC Laboratories, USA

The opinions stated herein are solely those of the speaker and not necessarily those of any company or organization.

LUX™ Chiral LC and SFC Columns

Ordering Information

3µm Minibore, MidBore™, and Analytical Columns (mm)										SecurityGuard™ Cartridges (mm)	
Phases	50 x 2.0	150 x 2.0	50 x 3.0	100 x 3.0	150 x 3.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
										/10pk	/10pk
i-Amylose-3	00B-4778-B0	00F-4778-B0	00B-4778-Y0	—	—	00B-4778-E0	00D-4778-E0	00F-4778-E0	00G-4778-E0	AJ0-8651	AJ0-8650
i-Cellulose-5	00B-4755-B0	00F-4755-B0	00B-4755-Y0	00D-4755-Y0	00F-4755-Y0	00B-4755-E0	00D-4755-E0	00F-4755-E0	00G-4755-E0	AJ0-8631	AJ0-8632
Cellulose-1	00B-4458-B0	00F-4458-B0	00B-4458-Y0	00D-4458-Y0	00F-4458-Y0	00B-4458-E0	00D-4458-E0	00F-4458-E0	00G-4458-E0	AJ0-8402	AJ0-8403
Cellulose-2	00B-4456-B0	00F-4456-B0	00B-4456-Y0	00D-4456-Y0	00F-4456-Y0	00B-4456-E0	00D-4456-E0	00F-4456-E0	00G-4456-E0	AJ0-8398	AJ0-8366
Cellulose-3	00B-4492-B0	00F-4492-B0	00B-4492-Y0	00D-4492-Y0	00F-4492-Y0	00B-4492-E0	00D-4492-E0	00F-4492-E0	00G-4492-E0	AJ0-8621	AJ0-8622
Cellulose-4	00B-4490-B0	00F-4490-B0	00B-4490-Y0	00D-4490-Y0	00F-4490-Y0	00B-4490-E0	00D-4490-E0	00F-4490-E0	00G-4490-E0	AJ0-8626	AJ0-8627
Amylose-1	00B-4729-B0	00F-4729-B0	00B-4729-Y0	00D-4729-Y0	00F-4729-Y0	00B-4729-E0	00D-4729-E0	00F-4729-E0	00G-4729-E0	AJ0-9337	AJ0-9336

for ID: 2.0–3.0 mm 3.2–8.0 mm

5µm Minibore and Analytical Columns (mm)						SecurityGuard Cartridges (mm)	
Phases	50 x 2.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
						/10pk	/10pk
i-Amylose-1	00B-4762-B0	00B-4762-E0	00D-4762-E0	00F-4762-E0	00G-4762-E0	AJ0-8640	AJ0-8641
i-Amylose-3	—	00B-4779-E0	00D-4779-E0	00F-4779-E0	00G-4779-E0	AJ0-8651	AJ0-8650
i-Cellulose-5	—	00B-4756-E0	00D-4756-E0	00F-4756-E0	00G-4756-E0	AJ0-8631	AJ0-8632
Cellulose-1	—	00B-4459-E0	00D-4459-E0	00F-4459-E0	00G-4459-E0	AJ0-8402	AJ0-8403
Cellulose-2	00B-4457-B0	00B-4457-E0	00D-4457-E0	00F-4457-E0	00G-4457-E0	AJ0-8398	AJ0-8366
Cellulose-3	—	00B-4493-E0	00D-4493-E0	00F-4493-E0	00G-4493-E0	AJ0-8621	AJ0-8622
Cellulose-4	—	—	00D-4491-E0	00F-4491-E0	00G-4491-E0	AJ0-8626	AJ0-8627
Amylose-1	00B-4732-B0	—	00D-4732-E0	00F-4732-E0	00G-4732-E0	AJ0-9337	AJ0-9336

for ID: 2.0–3.0 mm 3.2–8.0 mm

5µm Semi-Prep Columns (mm)			SecurityGuard Cartridges (mm)
Phases	150 x 10.0	250 x 10.0	10 x 10.0†
			/3pk
i-Amylose-1	—	00G-4762-N0	AJ0-8642
i-Amylose-3	—	00G-4779-N0	AJ0-8652
i-Cellulose-5	—	00G-4756-N0	AJ0-8633
Cellulose-1†	00F-4459-N0	00G-4459-N0	AJ0-8404
Cellulose-2†	—	00G-4457-N0	AJ0-8399
Cellulose-3	—	00G-4493-N0	AJ0-8623
Cellulose-4	—	00G-4491-N0	AJ0-8628
Amylose-1	—	00G-4732-N0	AJ0-9344

for ID: 9–16 mm

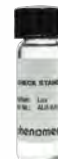
*Inquire for Lux 10µm Cellulose-1 and Cellulose-2 columns.

Column Performance Check Standard

Part No.	Description	Unit
AL0-8412	Chiral Test Mix No. 5 (Lux)	ea



Lux Chiral Method Screening Kits are available. Please contact your Phenomenex representative for more information.



5µm Axia™ Packed Preparative Columns (mm)					SecurityGuard Cartridges (mm)	
Phases	150 x 21.2	250 x 21.2	250 x 30	250 x 50	15 x 21.2**	15 x 30.0*
					/ea	/ea
i-Amylose-1	00F-4762-P0-AX	00G-4762-P0-AX	00G-4762-U0-AX	00G-4762-V0-AX	AJ0-8643	AJ0-8644
i-Amylose-3	00F-4779-P0-AX	00G-4779-P0-AX	00G-4779-U0-AX	00G-4779-V0-AX	AJ0-8653	AJ0-8654
i-Cellulose-5	00F-4756-P0-AX	00G-4756-P0-AX	00G-4756-U0-AX	00G-4756-V0-AX	AJ0-8634	AJ0-8635
Cellulose-1†	00F-4459-P0-AX	00G-4459-P0-AX	00G-4459-U0-AX	00G-4459-V0-AX	AJ0-8405	AJ0-8406
Cellulose-2†	00F-4457-P0-AX	00G-4457-P0-AX	00G-4457-U0-AX	00G-4457-V0-AX	AJ0-8400	AJ0-8401
Cellulose-3	00F-4493-P0-AX	00G-4493-P0-AX	00G-4493-U0-AX	00G-4493-V0-AX	AJ0-8624	AJ0-8625
Cellulose-4	00F-4491-P0-AX	00G-4491-P0-AX	00G-4491-U0-AX	00G-4491-V0-AX	AJ0-8629	AJ0-8630
Amylose-1	00F-4732-P0-AX	00G-4732-P0-AX	00G-4732-U0-AX	00G-4732-V0-AX	AJ0-9338	AJ0-9339

for ID: 18–29 mm 30–49 mm

Bulk Media		
Phases	100 g	1 kg
10µm		
Cellulose-1	04G-4501	04K-4501
Cellulose-2	04G-4502	04K-4502
Cellulose-3	04G-4624	04K-4624
Cellulose-4	04G-4625	04K-4625



*SecurityGuard Analytical Cartridges require holder, Part No.: [KJ0-4282](#)

†SemiPrep SecurityGuard Cartridges require holder, Part No.: [AJ0-9281](#)

**HPLC PREP SecurityGuard Cartridges require holder, Part No.: [AJ0-8223](#)
SFC PREP SecurityGuard Cartridges require holder, Part No.: [AJ0-8617](#)

*HPLC PREP SecurityGuard Cartridges require holder, Part No.: [AJ0-8227](#)
SFC PREP SecurityGuard Cartridges require holder, Part No.: [AJ0-8618](#)

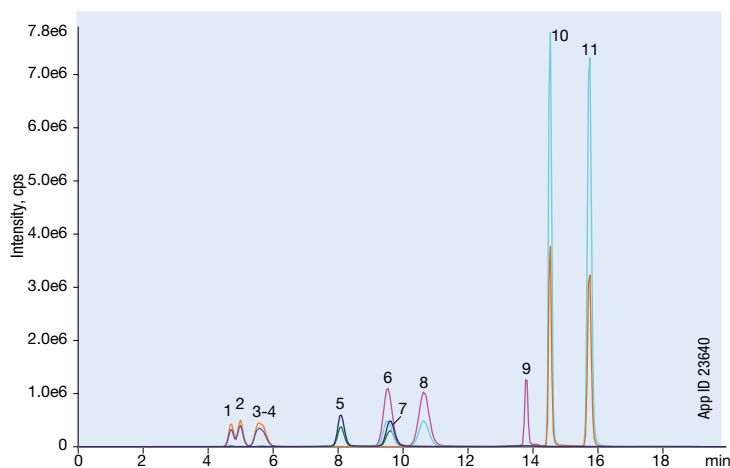


Rapid and Accurate Chiral Separation of Methamphetamine and Amphetamine Enantiomers from Urine

Lux 3 μ m AMP is a unique LC media that is specifically developed and tested for the chiral analysis of amphetamine and substituted amphetamines, including methamphetamine. Once presence of amphetamine or methamphetamine has been determined, enantiomeric confirmation can then easily be achieved.

Not Affected by Common Interferences

Another excellent benefit of the Lux 3 μ m AMP is that its separation of amphetamine and methamphetamine enantiomers isn't affected by common therapeutics and ingredients such as those seen below. In addition, the separation power of the Lux AMP column can also help with resolution between enantiomers of substituted amphetamines.



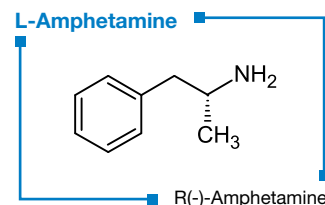
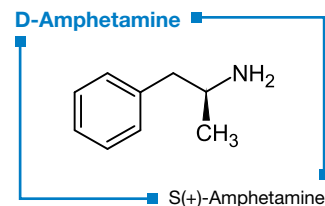
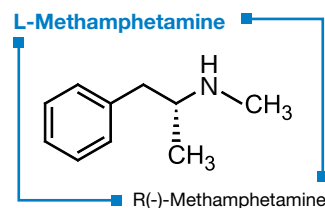
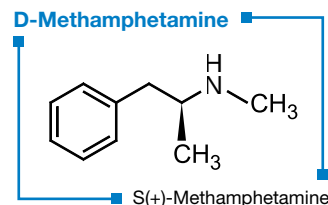
Column: Lux 3 μ m AMP
Dimension: 150 x 3.0 mm
Part No.: 00F-4751-Y0
Mobile Phase: A: 5 mM Ammonium Bicarbonate, adjusted to pH 11 with Ammonium Hydroxide
 B: Methanol
Gradient:

Time (min)	% B
0	60
10	60
11	95
16	95
16.3	60

Flow Rate: 0.42 mL/min
Temperature: Ambient
Detection: MS/MS (SCIEX® 4500 QTRAP®)

1. 1S,2R(+)-Ephedrine
2. R,R(-)-Pseudoephedrine
3. S,S(+)-Pseudoephedrine
4. 1R,2S(-)-Ephedrine
5. R(-)-Amphetamine
6. R(-)-Methamphetamine
7. S(+)-Amphetamine
8. S(+)-Methamphetamine
9. Phenylamine
10. R(-)-MDMA
11. S(+)-MDMA

Compounds included in this interference study but not illustrated chromatographically:
 acetaminophen
 aspirin
 ($\pm$)-chlorpheniramine
 caffeine
 diphenhydramine
 dextromethorphan
 ibuprofen
 ($\pm$)-MDA
 ($\pm$)-MDEA
 phenylephrine
 norephedrine



1-Minute β -Glucuronidase Removal

Within 1 minute, with no necessary method development, your samples will be ready for analysis.

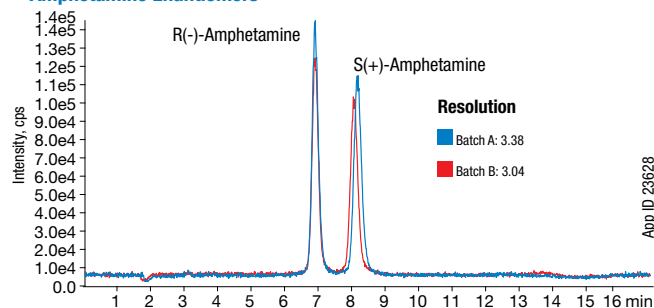
Learn more at:
www.phenomenex.com/beta-gone
 or visit p. 56



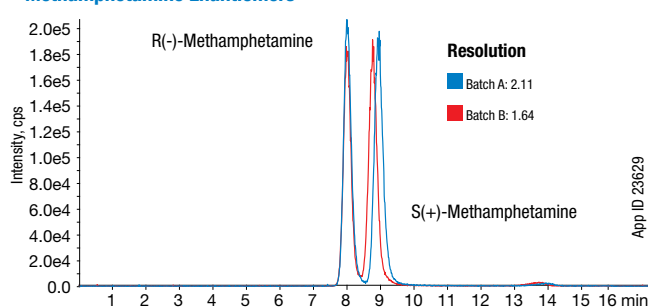
Exceptional Reliability

Lux 3 µm AMP media and columns are designed to be consistent and incredibly accurate tools for amphetamine and methamphetamine analysis. Each batch is specifically tested by LC-MS for the analysis of amphetamine and methamphetamine, and columns are quality tested to ensure dependability and reproducibility.

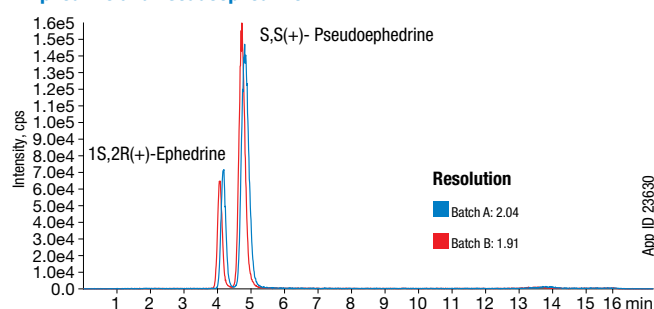
Amphetamine Enantiomers



Methamphetamine Enantiomers



Ephedrine and Pseudoephedrine

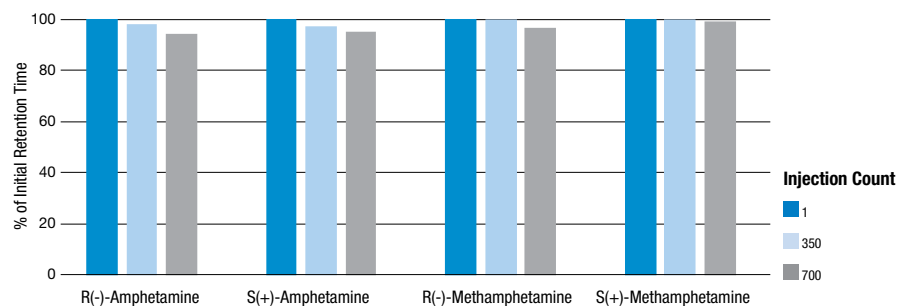


Column: Lux 3 µm AMP
Dimension: 150 x 3.0 mm
Part No.: 00F-4751-Y0
Mobile Phase: A: 5 mM Ammonium Bicarbonate, adjusted to pH 11 with Ammonium Hydroxide
 B: Methanol
Gradient:

Time (min)	% B
0	60
10	60
11	95
13	95
13.1	60

Flow Rate: 0.42 mL/min
Temperature: 22 °C
Sample: 1. Ephedrine
 2. Pseudoephedrine
 3. R(-)-Amphetamine
 4. S(+)-Amphetamine
 5. R(-)-Methamphetamine
 6. S(+)-Methamphetamine

Excellent Lifetime



Ordering Information

Phase	3 µm Analytical Columns (mm)		SecurityGuard™ Cartridges (mm)	
	150 x 3.0	150 x 4.6	4 x 2.0*	4 x 3.0*
AMP	00F-4751-Y0	00F-4751-E0	10/pk AJ0-8475	10/pk AJ0-8476
			for ID: 2.0 - 3.0 mm	
			3.2 - 8.0 mm	

*SecurityGuard Analytical Cartridges require holder, Part No.: KJQ-4282