

NEW Lux i-Amylose-3

Your New First Choice Chiral Column!

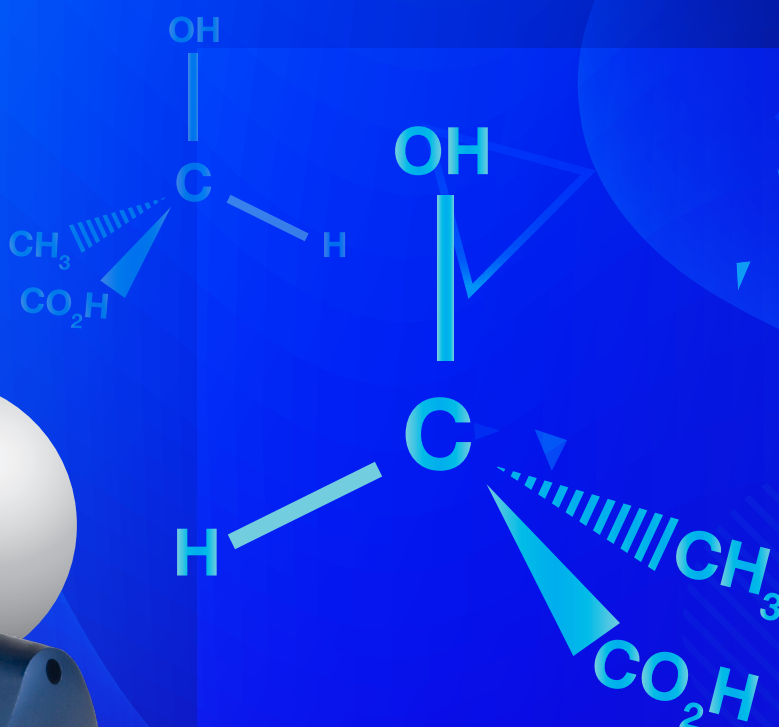
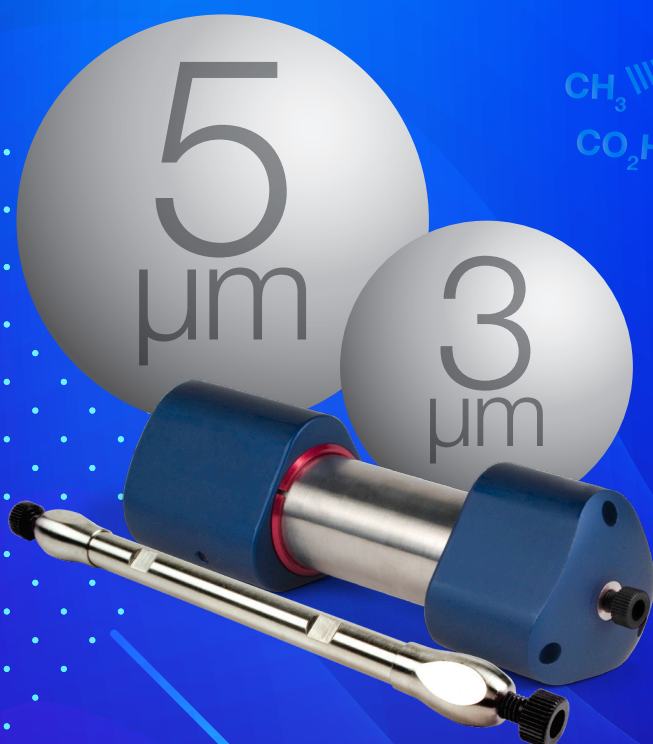
Screening Application Notebook - Demystifying Chirality

Reversed Phase

Normal Phase

Polar Organic

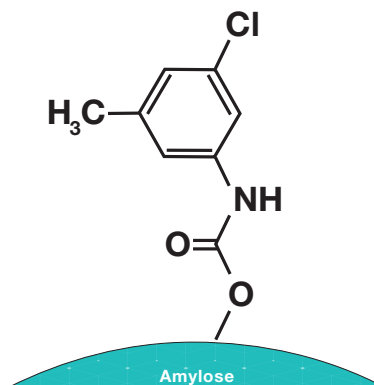
Polar Ionic



NEW / Lux i-Amylose-3

Demystify Chirality with:

- Strong solvent stability
- Broad enantioselectivity
- Robust reproducibility



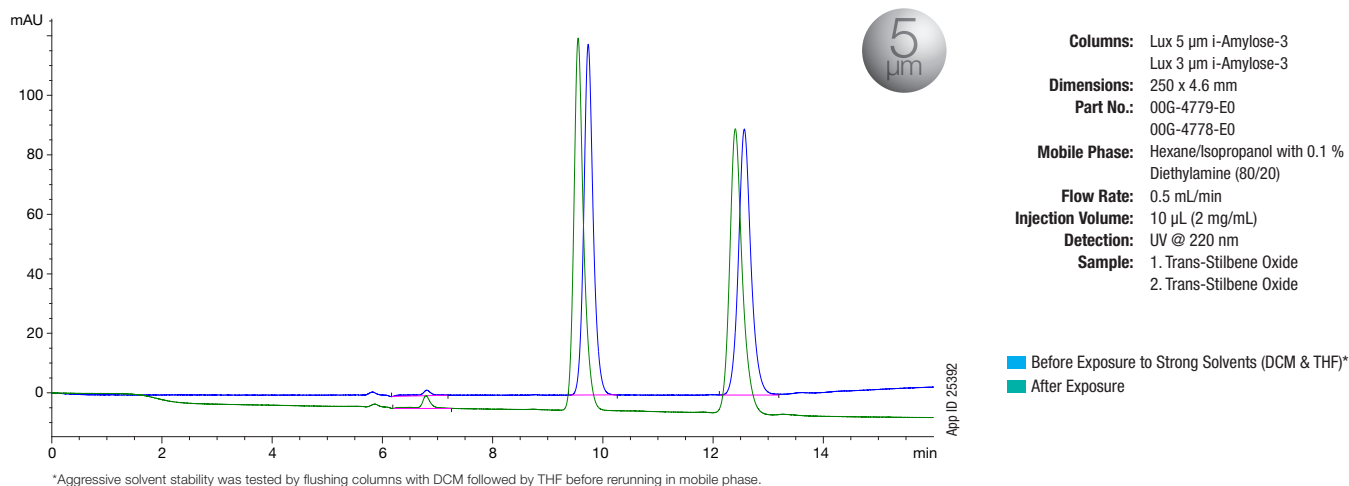
Amylose tris(3-chloro-5-methylphenylcarbamate)

The i-Amylose-3 chiral selector is a complementary but distinct chiral selectivity in comparison to i-Amylose-1 and i-Cellulose-5. It combines the 5-position methyl group of the i-Amylose-1 chiral selector with electron-withdrawing potential of the i-Cellulose-5 3-position chlorine group. Combined with the strong solvent flexibility of the immobilization process the Lux i-Amylose-3 column broad enantioselectivity promotes greater chiral separation success.

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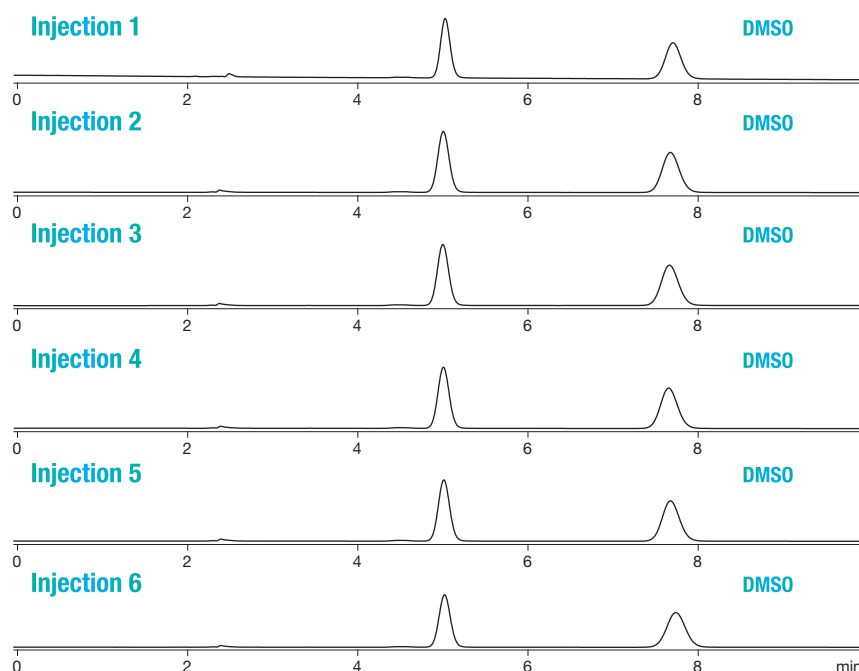
Immobilized Strong Solvent Stability and Robustness

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.



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 columns:

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

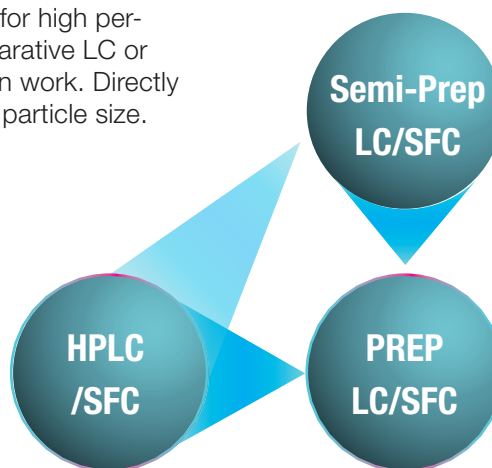
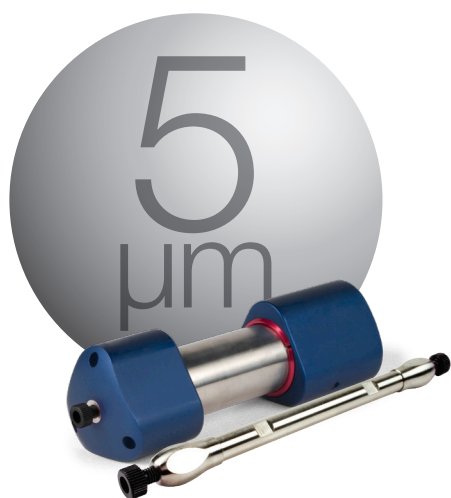
Dilution Solvent: Dimethyl Sulfoxide (DMSO)

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.



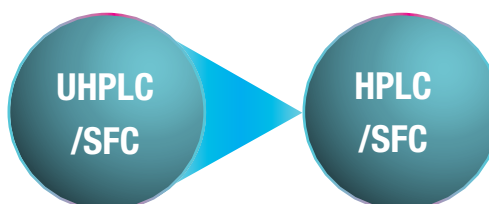
Multiple Particles and Formats to Fit your Immobilized Chiral Column Needs!

Lower pressure, all-purpose particle size for analytical LC (HPLC) or SFC methods and especially for high performance preparative LC or SFC purification work. Directly scales to 3 μm particle size.



Internal Diameters (ID) Available for LC and SFC					
Analytical		Semi-Prep		Preparative	
2.0mm	4.6mm	10mm	21.2mm	30mm	50mm

The perfect fit for analytical LC (UHPLC/HPLC) or SFC screening or analysis methods. Directly scales to 5 μm particle size.



Internal Diameters (ID) Available for LC and SFC		
Analytical		
2.0mm	3.0mm	4.6mm

Lux Polysaccharide LC/SFC Chiral Stationary Phases



Lux coated and immobilized chiral columns offer a wide and complementary range of enantioselectivity for even the most difficult chiral separation projects under normal phase, reversed phase, polar organic, or SFC separation modes. While immobilized phases do offer additional strong solvent robustness, Lux coated phases are incredibly useful because their increased bonded surface area leads to greater overall levels of enantioselectivity.

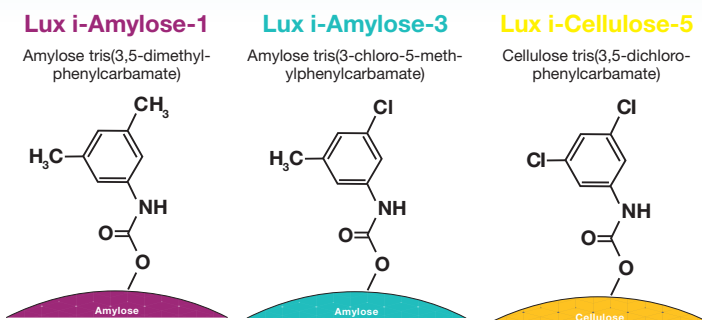
NEW		
Lux i-Amylose-1 Amylose tris(3,5-dimethylphenylcarbamate)	Lux i-Amylose-3 Amylose tris(3-chloro-5-methylphenylcarbamate)	Lux i-Cellulose-5 Cellulose tris(3,5-dichlorophenylcarbamate)
Lux Amylose-1 Amylose tris(3,5-dimethylphenylcarbamate)	Lux Amylose-2 Amylose tris(5-chloro-2-methylphenylcarbamate)	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)

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® and IA-3	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)
CHIRALPAK AY®, AY-H®, AY-3, AY-RH, and AY-3R	Lux Amylose-2	Amylose tris(5-chloro-2-methylphenylcarbamate)
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)

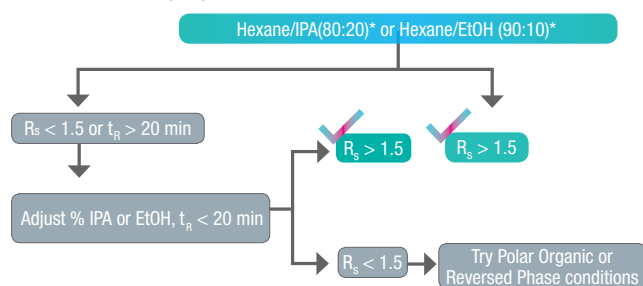
Simplified Chiral Column Screening Strategy

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.

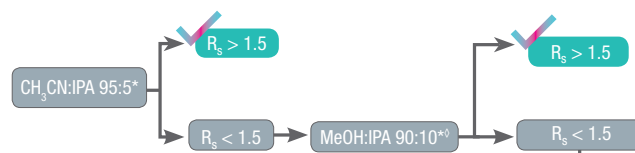


HPLC Screen

Normal Phase (NP)



Polar Organic (PO)



Reversed Phase (RP)

Acidic Compounds

1. CH₃CN:0.1 % Formic Acid or 0.1 % Acetic Acid
2. MeOH:0.1 % Formic Acid or 0.1 % Acetic Acid

Neutral Compounds

1. CH₃CN: Water
2. MeOH: Water

Basic Compounds

1. CH₃CN w/ 20 mM NH₄HCO₃ + 0.1 % DEA
2. MeOH w/ 20 mM NH₄HCO₃ + 0.1 % DEA

Please contact your local Phenomenex representative for additional support.

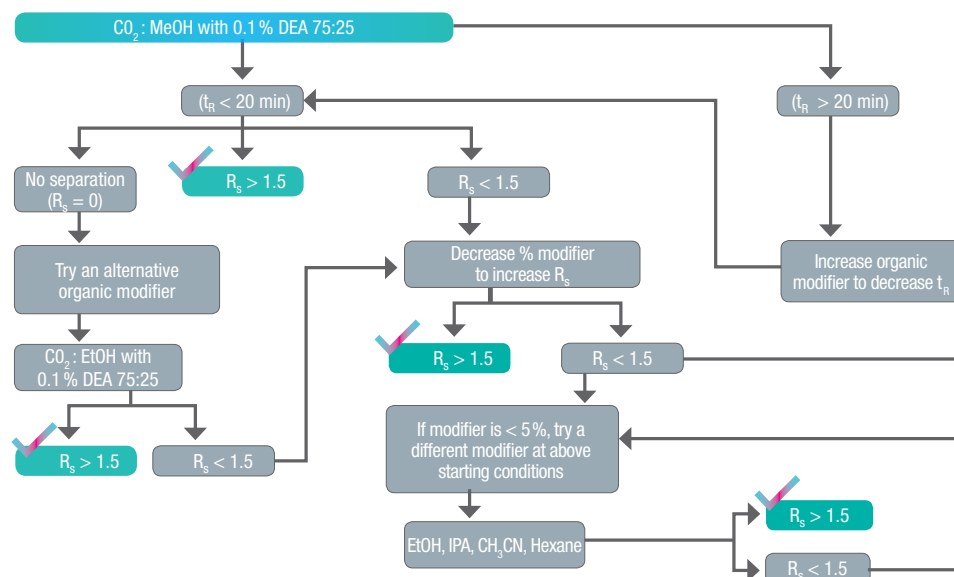
Tip

We suggest initially screening all three immobilized Lux phases because of greater solvent flexibility.

Notes: This screening strategy can be started at any step depending on the properties of the enantiomers. A common dimension used in chiral screening is 250 x 4.6 mm. For faster screening, use shorter columns.
* Use 0.1 % DEA with basic and neutral compounds and 0.1 % HCOOH with acidic and neutral compounds
† Changing % IPA in methanol can be occasionally beneficial

Key: IPA: Isopropanol; DEA: Diethylamine; MeOH: Methanol; CH₃CN: Acetonitrile; EtOH: Ethanol; CH₃COONH₄: Ammonium acetate; HCOOH: Formic acid; NH₄HCO₃: Ammonium bicarbonate; CO₂: Carbon Dioxide

SFC Screen



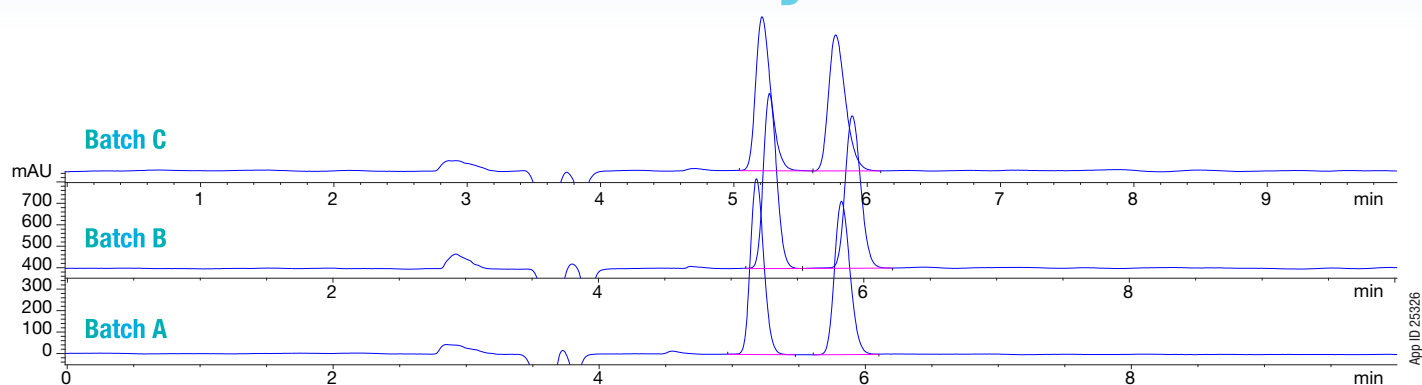
Tip

For basic or acidic chiral compounds, it may be necessary to use an appropriate mobile phase modifier for improved peak shape and resolution.

Please contact your local Phenomenex representative for additional support.

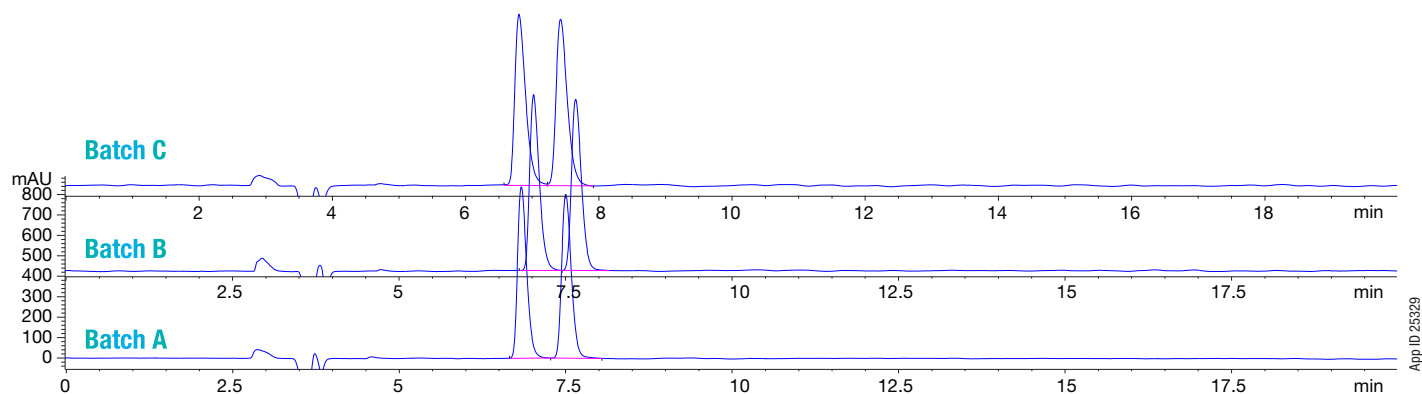
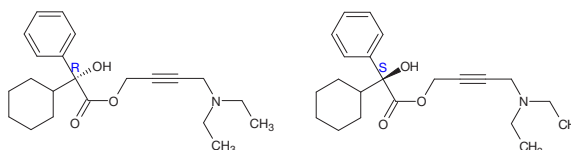
Lux i-Amylose-3

Normal Phase Selectivity



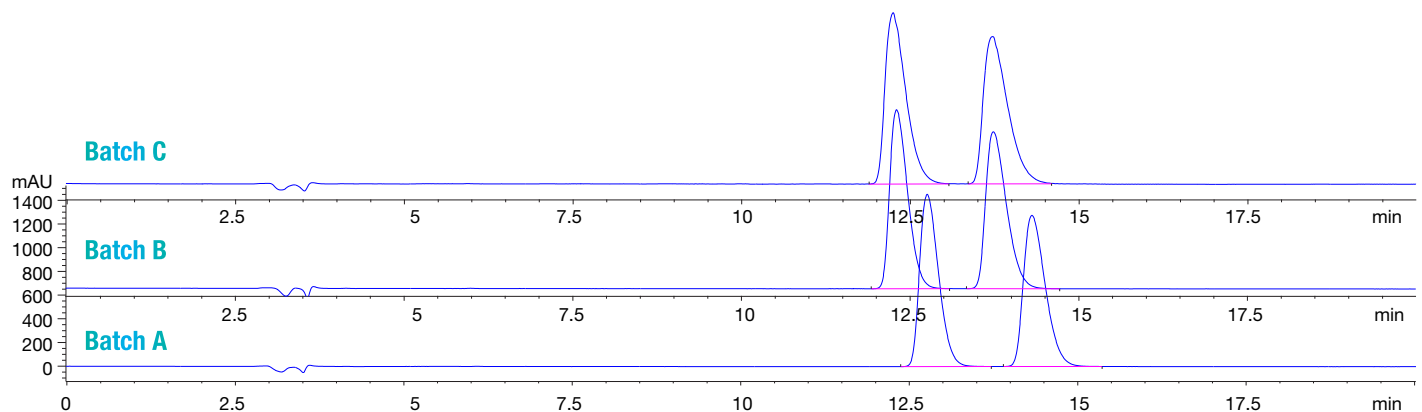
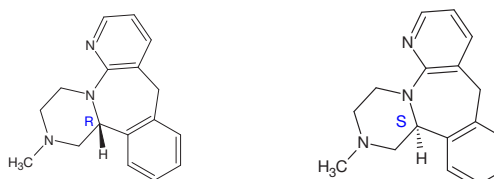
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Oxybutynin
 2. Oxybutynin

Enantiomers of Oxybutynin



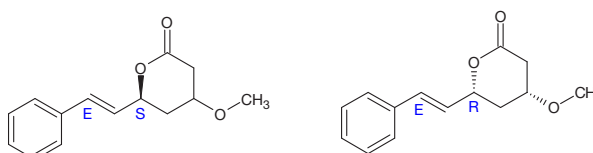
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Mirtazapine
 2. Mirtazapine

Enantiomers of Mirtazapine



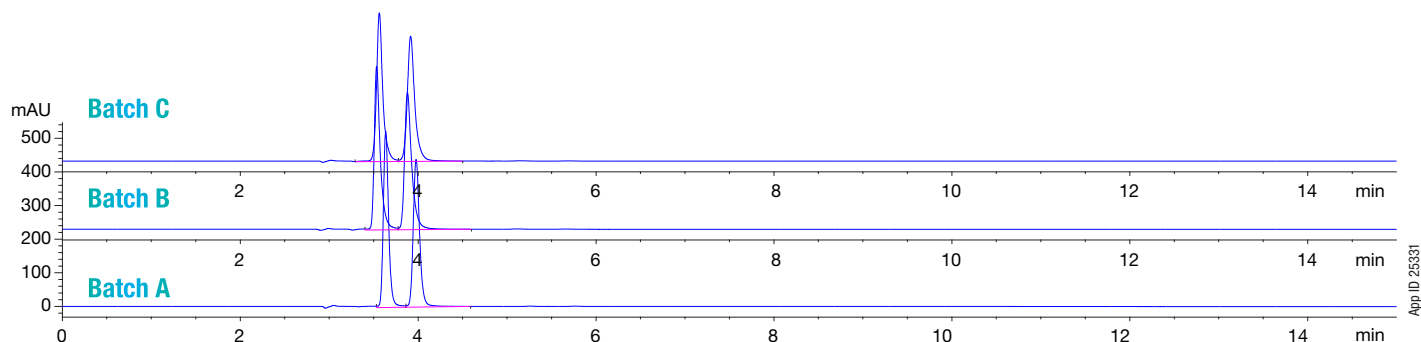
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Kavain
 2. Kavain

Enantiomers of Kavain



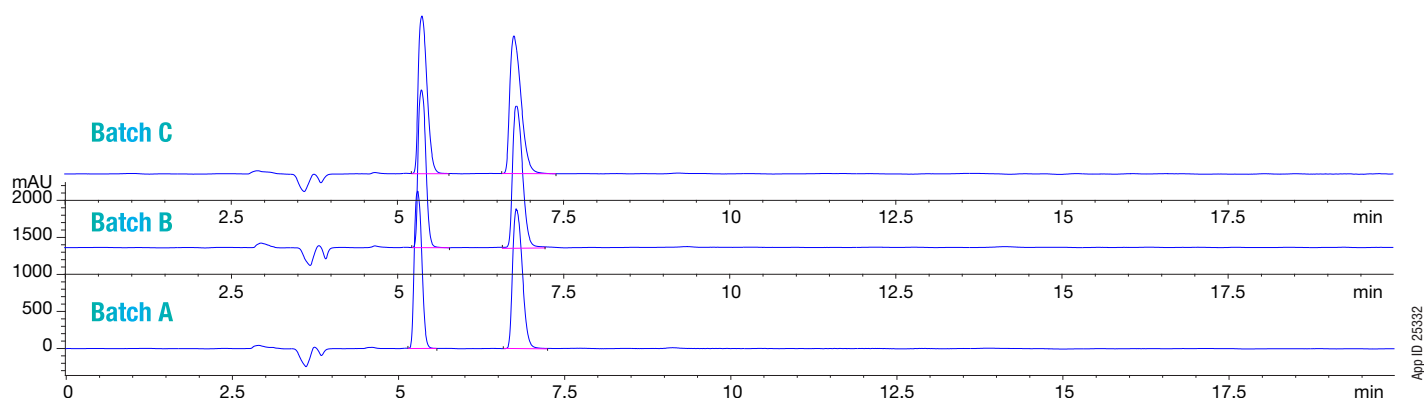
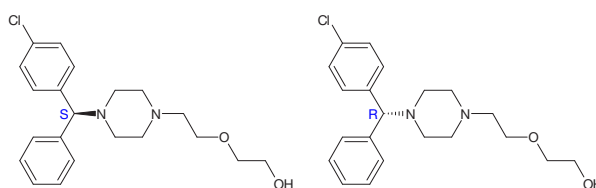
Lux i-Amylose-3

Normal Phase Selectivity (cont'd)



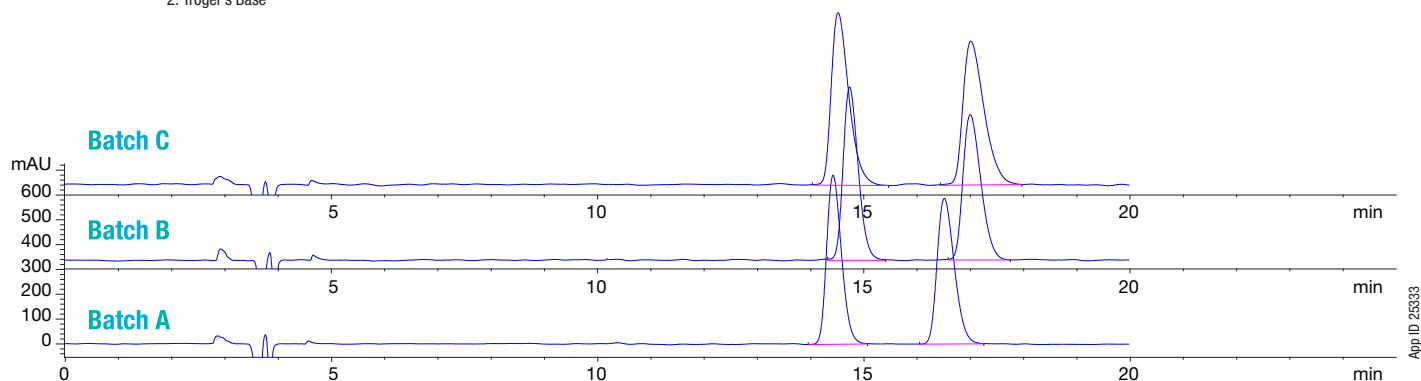
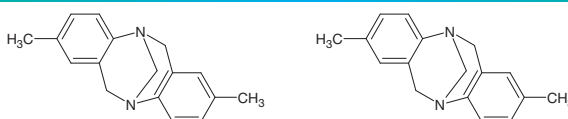
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Hydroxyzine
 2. Hydroxyzine

Enantiomers of Hydroxyzine



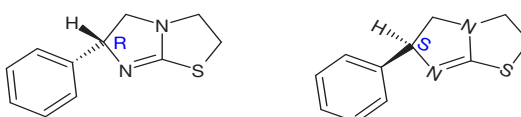
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Tröger's Base
 2. Tröger's Base

Enantiomers of Tröger's Base



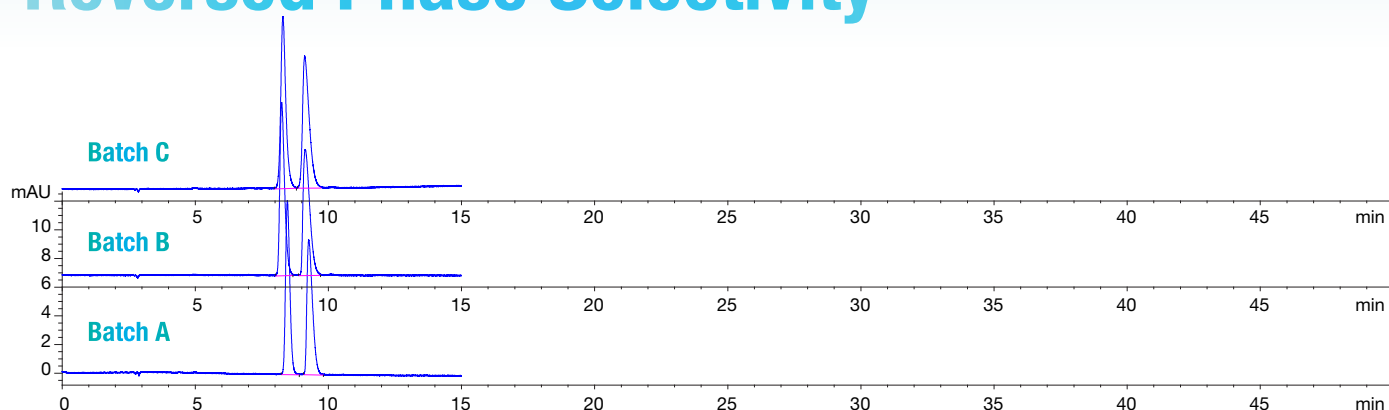
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Hexane/Isopropanol with 0.1 % Diethylamine (80:20)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Tetramisole
 2. Tetramisole

Enantiomers of Tetramisole



Lux i-Amylose-3

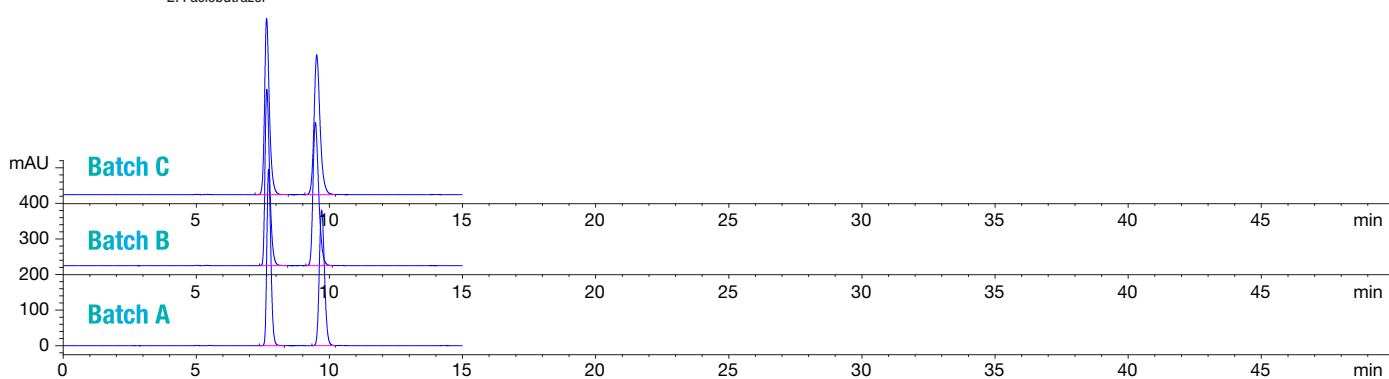
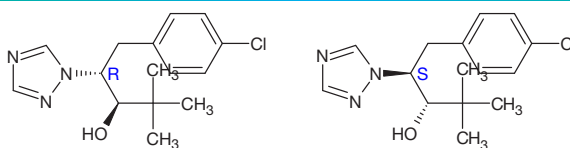
Reversed Phase Selectivity



App ID 25336

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (47:53)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Paclitaxel
 2. Paclitaxel

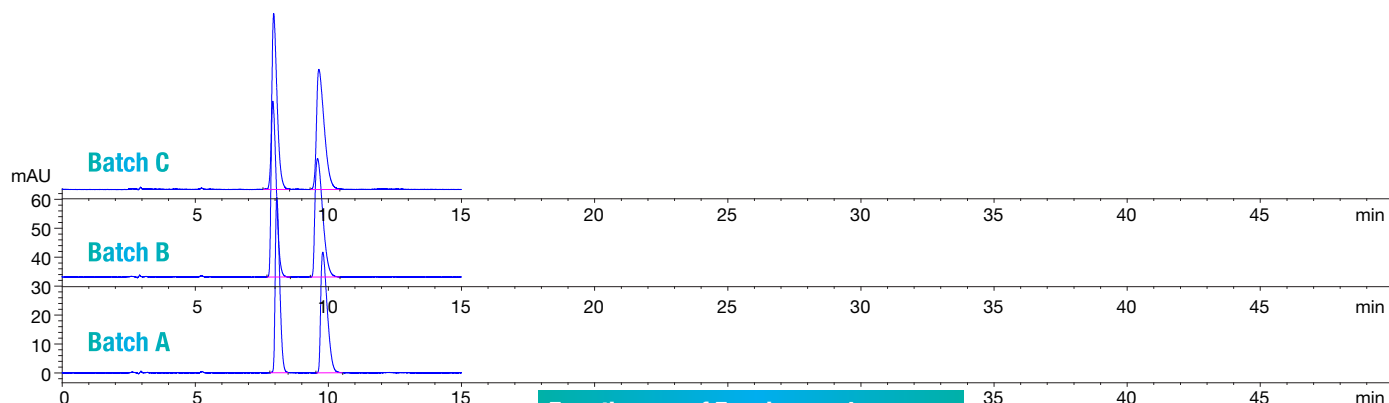
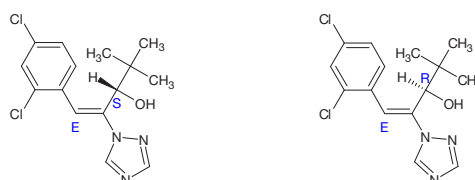
Enantiomers of Paclitaxel



App ID 25337

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (35:65)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Diniconazole
 2. Diniconazole

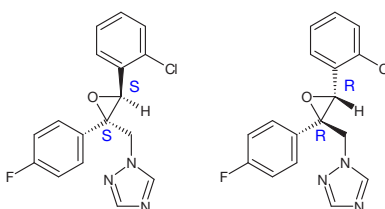
Enantiomers of Diniconazole



App ID 25338

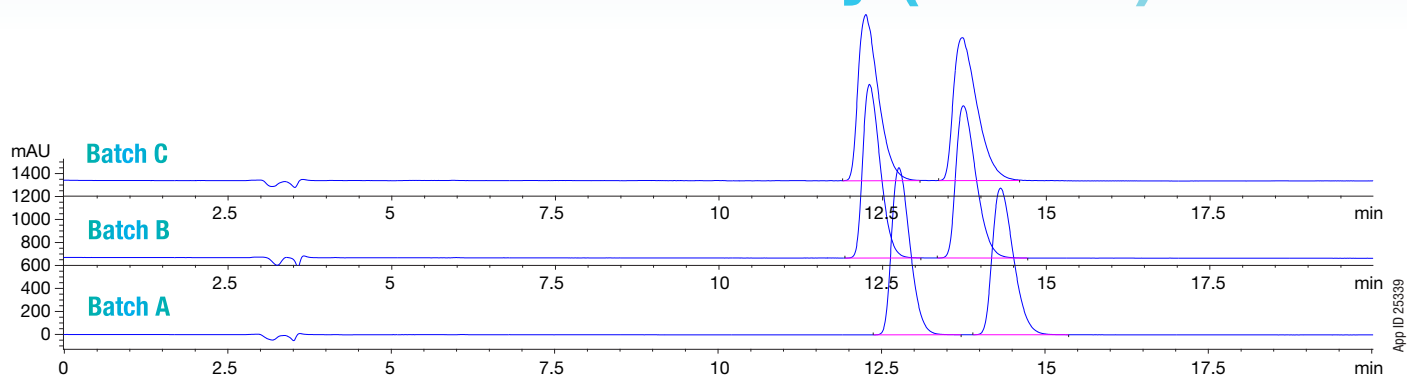
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (35:65)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Epoxiconazole
 2. Epoxiconazole

Enantiomers of Epoxiconazole



Lux i-Amylose-3

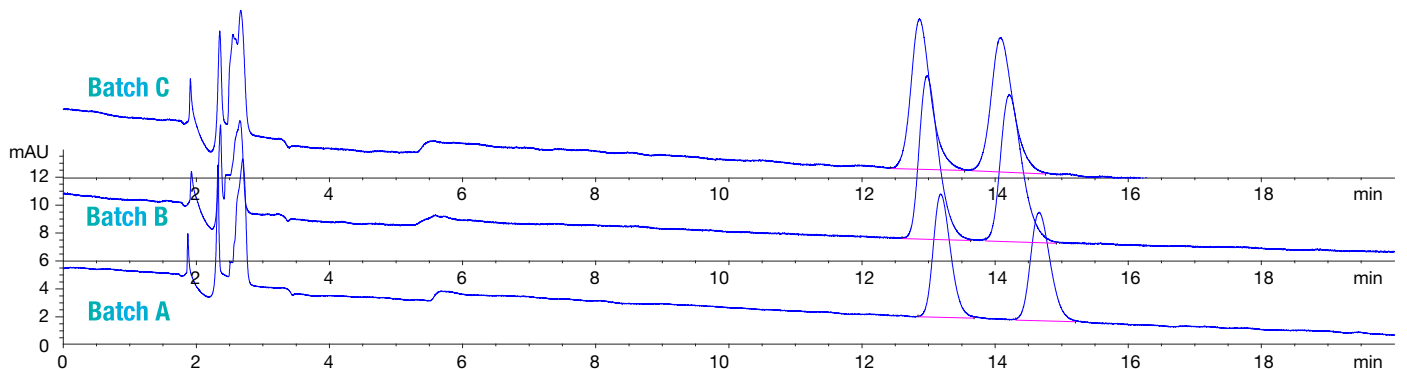
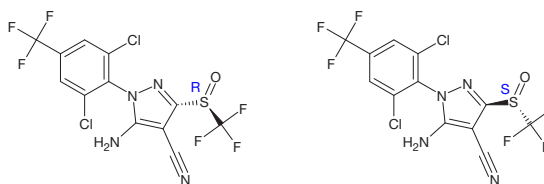
Reversed Phase Selectivity (cont'd.)



App ID 25339

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (47:53)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Fipronil
2. Fipronil

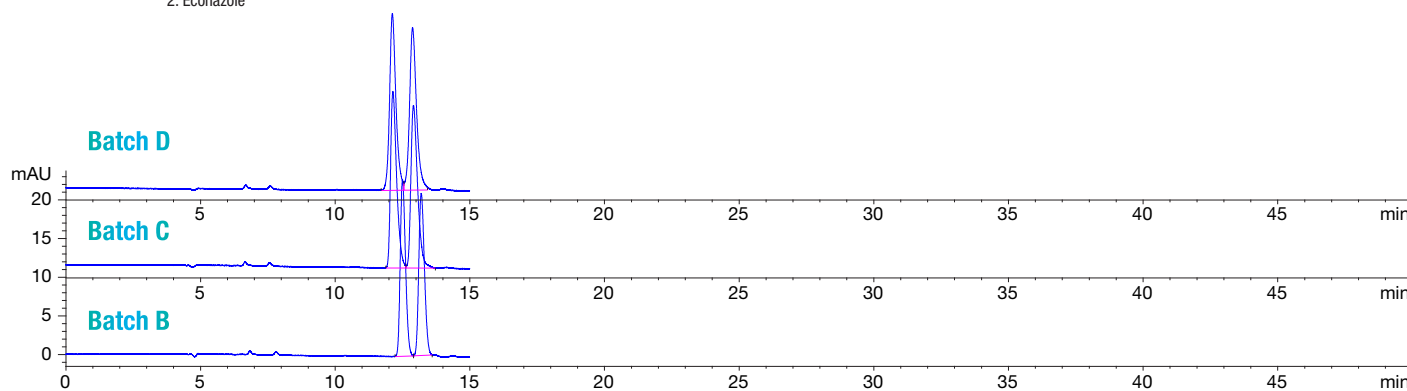
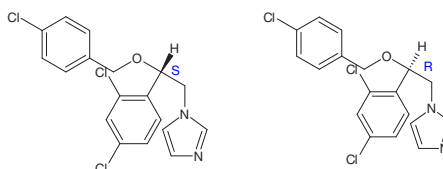
Enantiomers of Fipronil



App ID 25340

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (65:35)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Econazole
2. Econazole

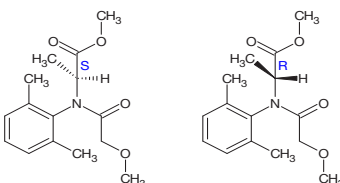
Enantiomers of Econazole



App ID 25341

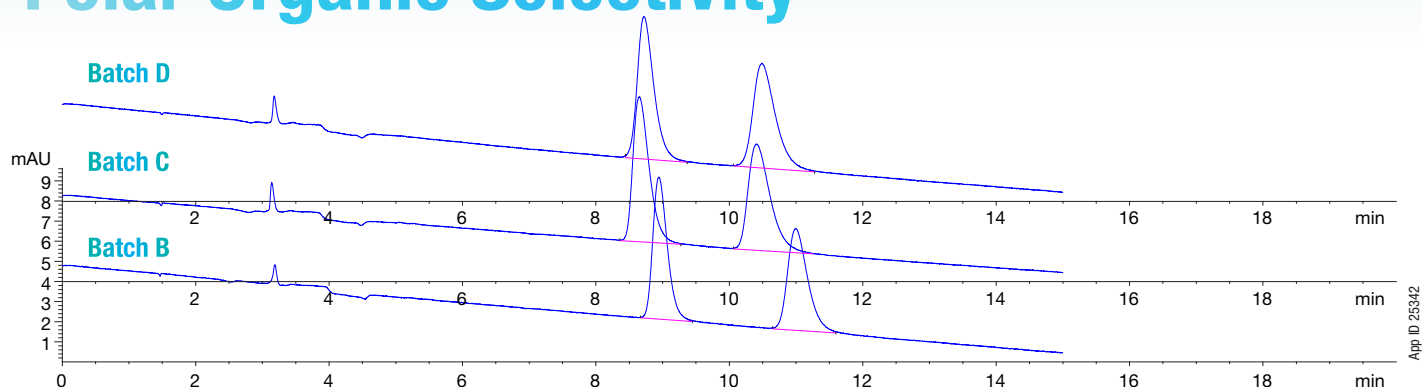
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (35:65)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Metalaxyl
2. Metalaxyl

Enantiomers of Metalaxyl



Lux i-Amylose-3

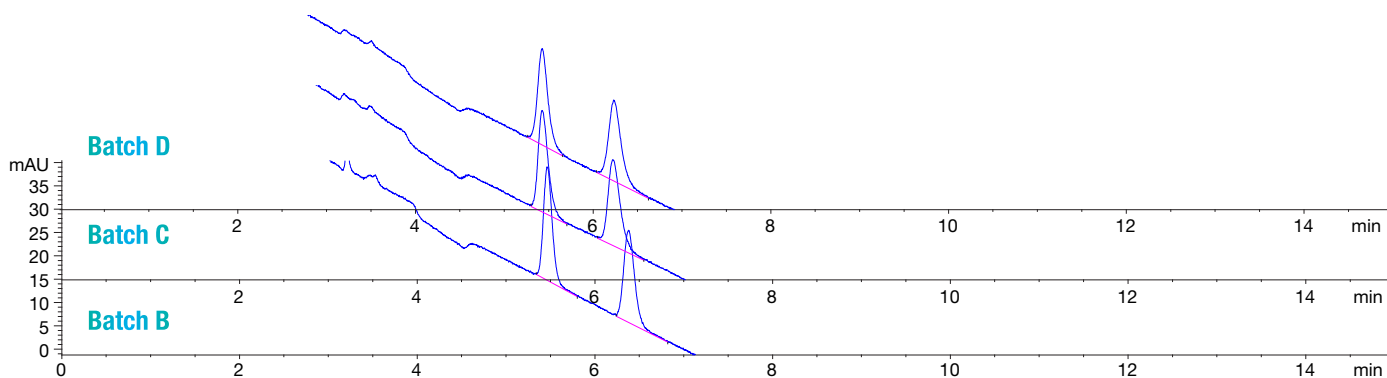
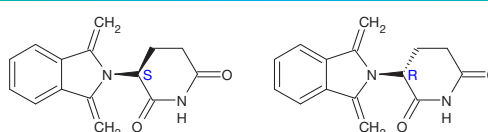
Polar Organic Selectivity



App ID 25342

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Acetonitrile with 0.1 % Diethylamine
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Thalidomide
2. Thalidomide

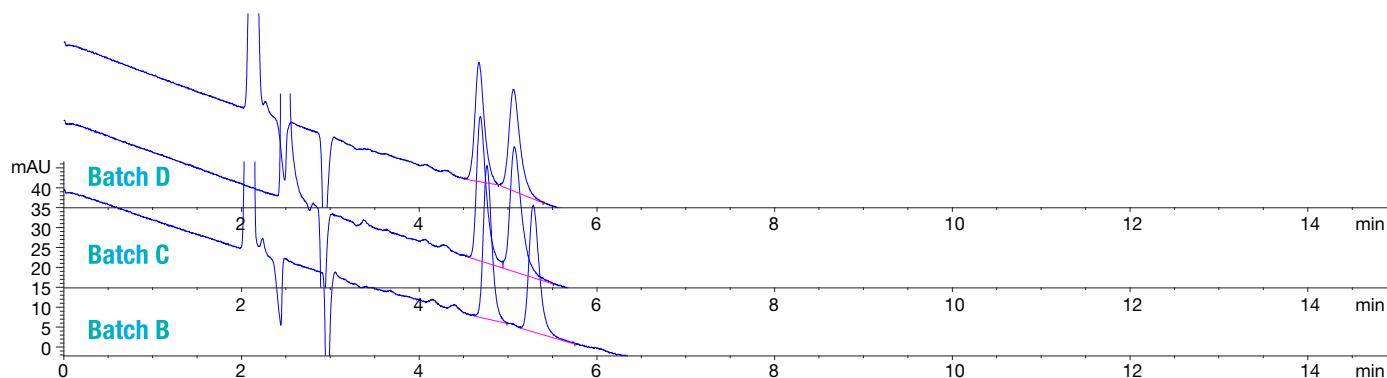
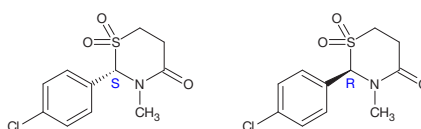
Enantiomers of Thalidomide



App ID 25343

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Acetonitrile with 0.1 % Diethylamine
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Chlormezanone
2. Chlormezanone

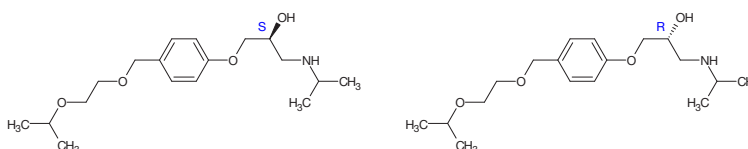
Enantiomers of Chlormezanone



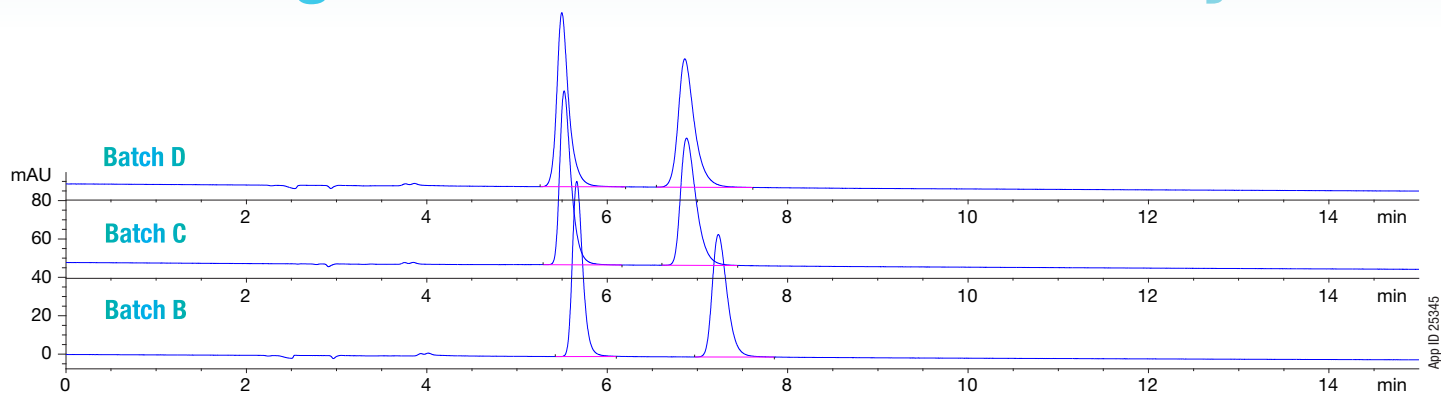
App ID 25344

Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Methanol with 0.1 % Diethylamine
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Bisoprolol
2. Bisoprolol

Enantiomers of Bisoprolol

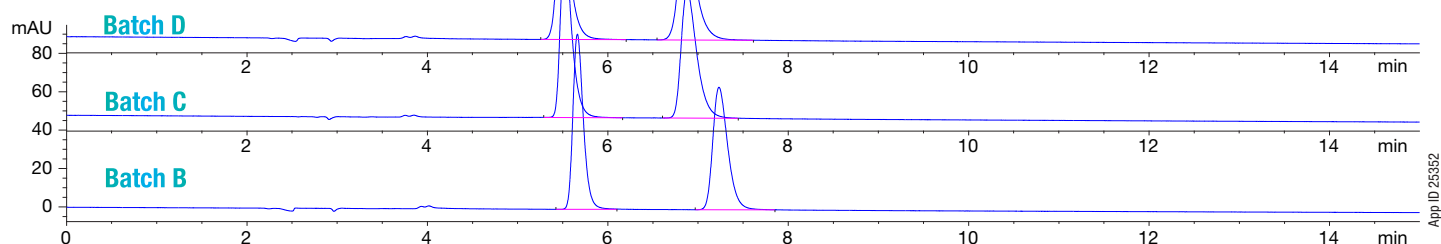
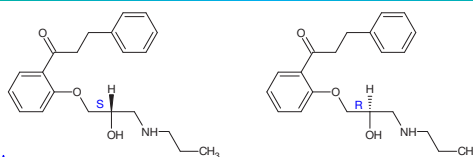


Polar Organic & Polar Ionic Selectivity



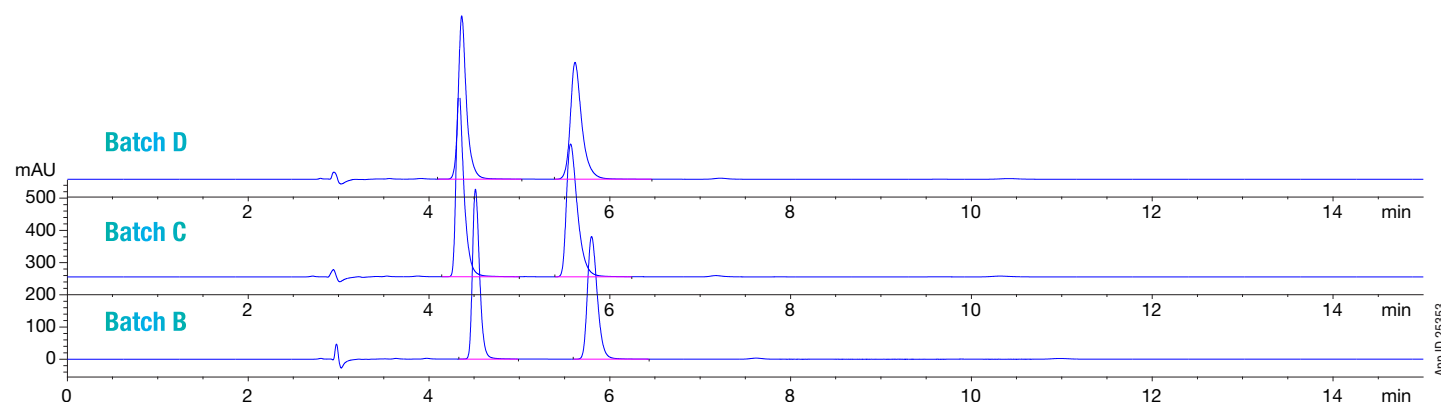
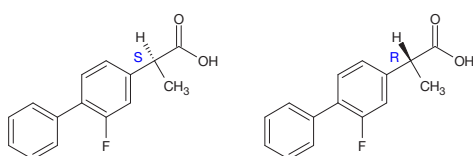
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Methanol with 0.1 % Diethylamine
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Propafenone
 2. Propafenone

Enantiomers of Propafenone



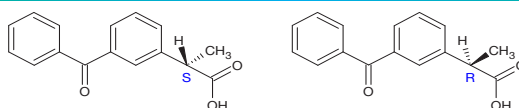
Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Methanol with 0.1 % Formic Acid
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Flurbiprofen
 2. Flurbiprofen

Enantiomers of Flurbiprofen



Columns: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Mobile Phase: Methanol with 0.1 % Formic Acid
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Ketorolac
 2. Ketorolac

Enantiomers of Ketorolac

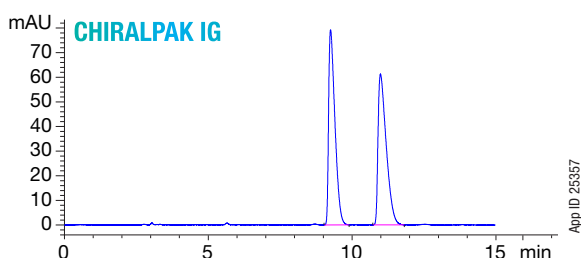
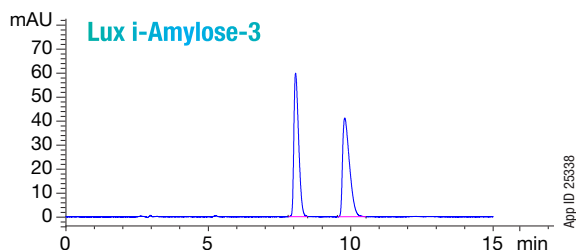


App ID 25345

App ID 25352

App ID 25353

Guaranteed Alternative to CHIRALPAK IG[®]

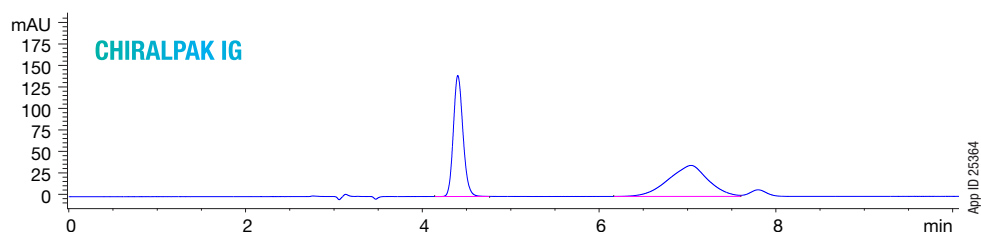
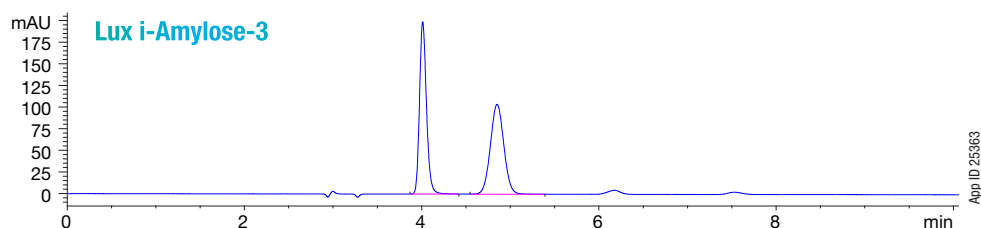
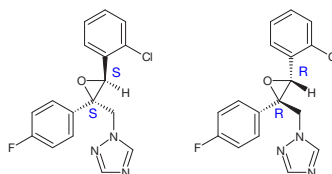


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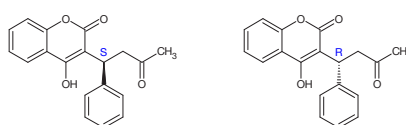
Columns: Lux 5 μ m i-Amylose-3
CHIRALPAK IG
Dimensions: 250 x 4.6 mm
Mobile Phase: Water with 5 mM Ammonium Acetate + 0.05 % Formic Acid/Acetonitrile (35:65)
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Epoxiconazole
2. Epoxiconazole

Enantiomers of Epoxiconazole



Columns: Lux 5 μ m i-Amylose-3
CHIRALPAK IG
Dimensions: 250 x 4.6 mm
Mobile Phase: Methanol with 0.05 % Formic Acid
Flow Rate: 0.6 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 254 nm
Sample: 1. Warfarin
2. Warfarin

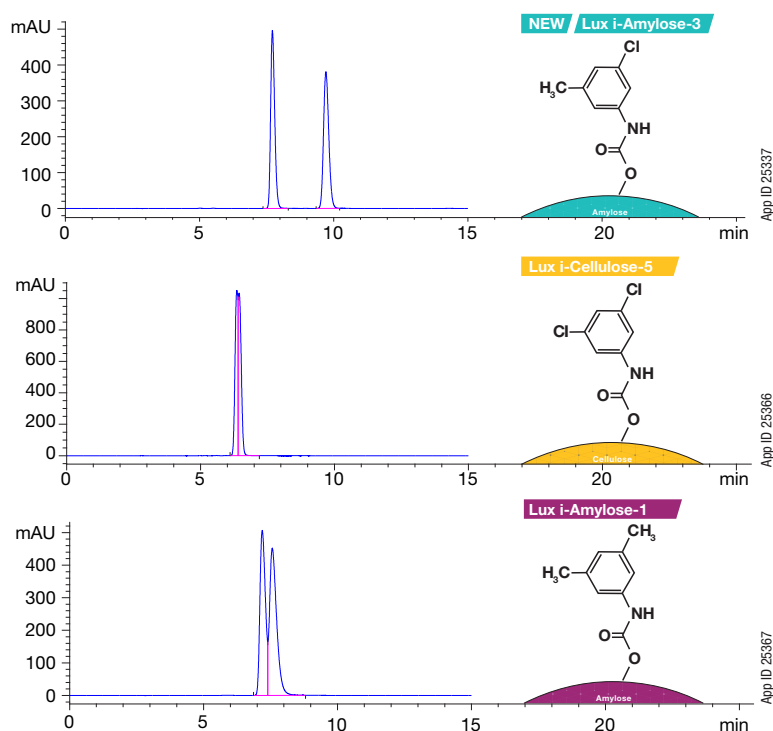
Enantiomers of Warfarin



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 are examples of chiral screening using i-Amylose-3, i-Cellulose-5, and i-Amylose-1 under a variety of screening conditions.

Reversed Phase



Columns: Lux 5 μ m i-Amylose-3
Lux 5 μ m i-Cellulose-5
Lux 5 μ m i-Amylose-1

Dimensions: 250 x 4.6 mm

Part No.: 00G-4779-E0
00G-4756-E0
00G-4762-E0

Mobile Phase: Water with 0.1 % Diethylamine/Acetonitrile (35:65)

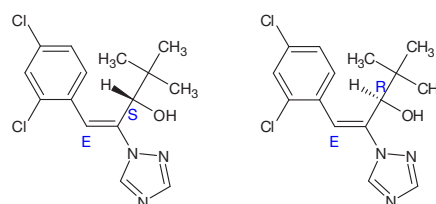
Flow Rate: 1.0 mL/min

Injection Volume: 10 μ L (2 mg/mL)

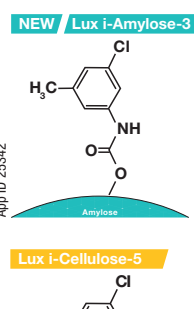
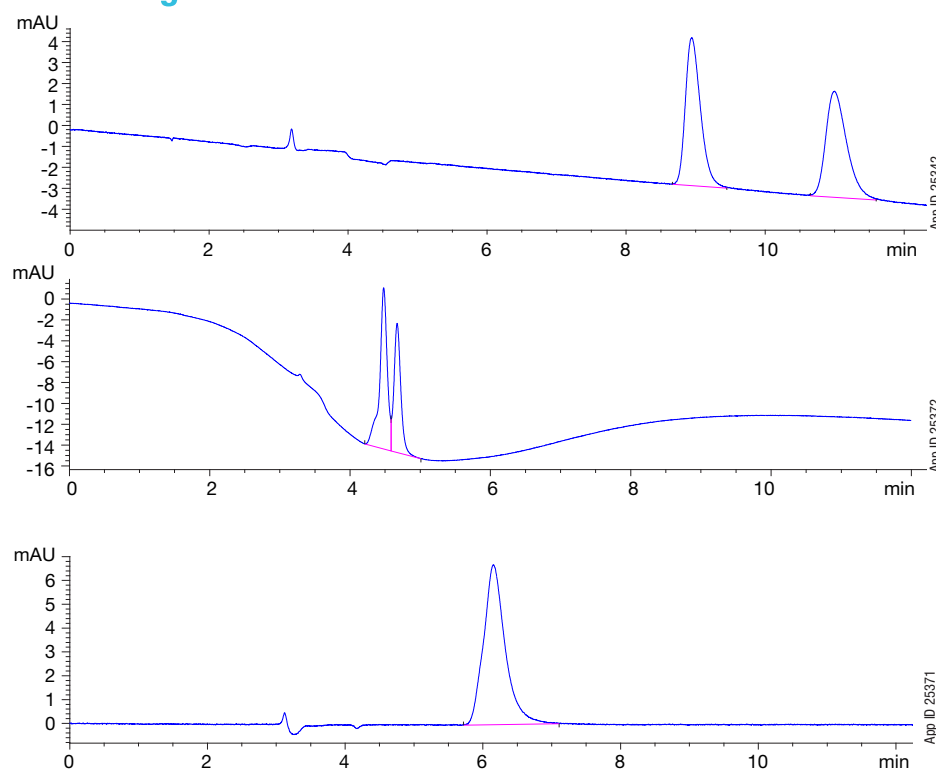
Detection: UV @ 254 nm

Sample: 1. Diniconazole
2. Diniconazole

Enantiomers of Diniconazole



Polar Organic



Columns: Lux 5 μ m i-Amylose-3
Lux 5 μ m i-Cellulose-5
Lux 5 μ m i-Amylose-1

Dimensions: 250 x 4.6 mm

Part No.: 00G-4779-E0
00G-4756-E0
00G-4762-E0

Mobile Phase: Acetonitrile with 0.1 % Diethylamine

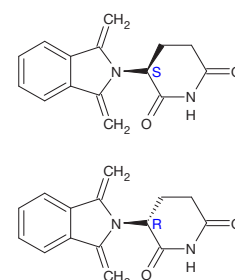
Flow Rate: 1.0 mL/min

Injection Volume: 10 μ L (2 mg/mL)

Detection: UV @ 254 nm

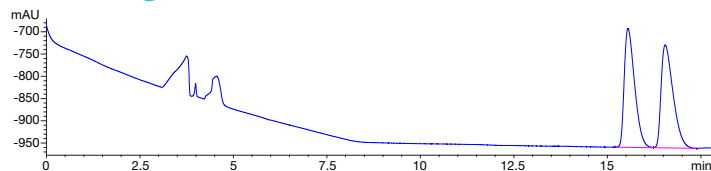
Sample: 1. Thalidomide
2. Thalidomide

Enantiomers of Thalidomide

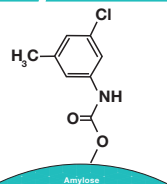


Immobilized Selectivity Comparison

Polar Organic

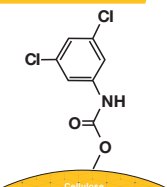


NEW Lux i-Amylose-3



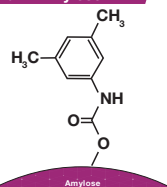
App ID 25360

Lux i-Cellulose-5

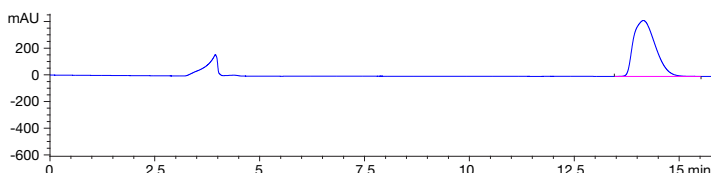
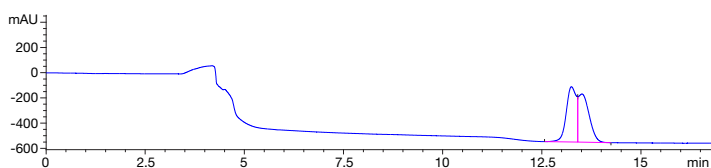


App ID 25374

Lux i-Amylose-1



App ID 25373



Columns: Lux 5 μ m i-Amylose-3
Lux 5 μ m i-Cellulose-5
Lux 5 μ m i-Amylose-1

Dimensions: 250 x 4.6 mm

Part No.: 00G-4779-E0

00G-4756-E0

00G-4762-E0

Mobile Phase: Acetonitrile with 0.1 % Diethylamine

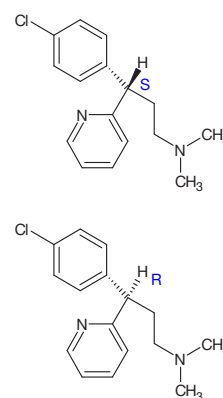
Flow Rate: 1.0 mL/min

Injection Volume: 10 μ L (2 mg/mL)

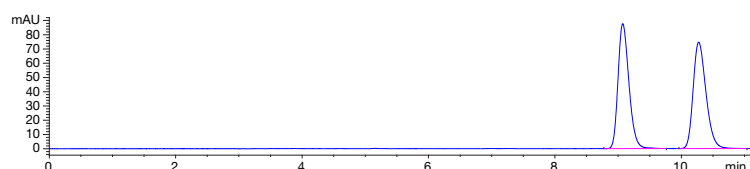
Detection: UV @ 254 nm

Sample: 1. Chlorpheniramine
2. Chlorpheniramine

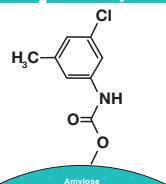
Enantiomers of Chlorpheniramine



Polar Ionic

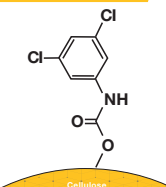


NEW Lux i-Amylose-3



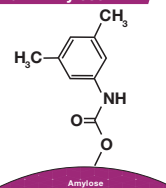
App ID 25375

Lux i-Cellulose-5

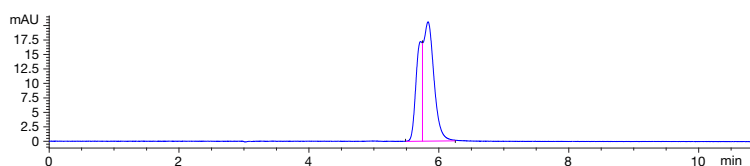
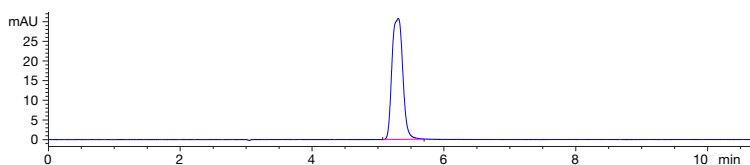


App ID 25377

Lux i-Amylose-1



App ID 25376



Columns: Lux 5 μ m i-Amylose-3
Lux 5 μ m i-Cellulose-5
Lux 5 μ m i-Amylose-1

Dimensions: 250 x 4.6 mm

Part No.: 00G-4779-E0

00G-4756-E0

00G-4762-E0

Mobile Phase: Acetonitrile with 0.1 % Formic Acid

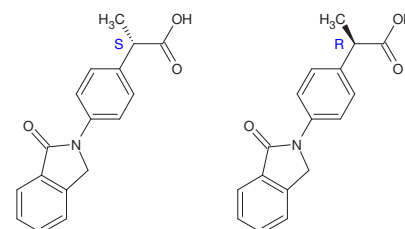
Flow Rate: 1.0 mL/min

Injection Volume: 10 μ L (2 mg/mL)

Detection: UV @ 254 nm

Sample: 1. Indoprofen
2. Indoprofen

Enantiomers of Indoprofen



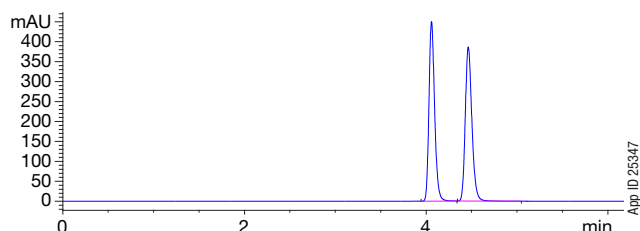
Need a chiral method right now?

Start your chiral method search by an analyte name or structure search in seconds here:

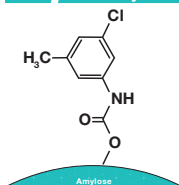
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Immobilized Selectivity Comparison (cont'd)

Polar Ionic



NEW / Lux i-Amylose-3



Columns: Lux 5 μ m i-Amylose-3
Lux 5 μ m i-Cellulose-5
Lux 5 μ m i-Amylose-1

Dimensions: 250 x 4.6 mm

Part No.: 00G-4779-E0

00G-4756-E0

00G-4762-E0

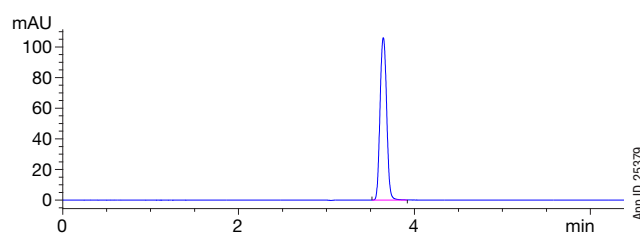
Mobile Phase: Acetonitrile with 0.1 % Formic Acid

Flow Rate: 1.0 mL/min

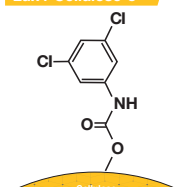
Injection Volume: 10 μ L (2 mg/mL)

Detection: UV @ 254 nm

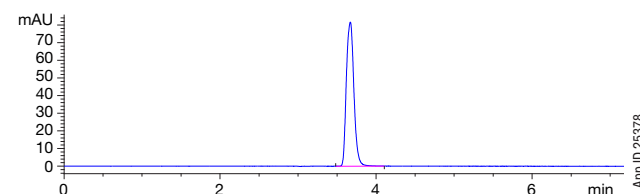
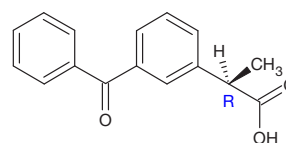
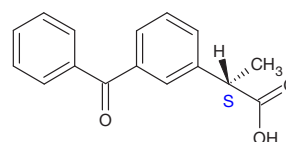
Sample: 1. Ketoprofen
2. Ketoprofen



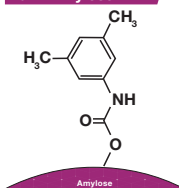
Lux i-Cellulose-5



Enantiomers of Ketoprofen



Lux i-Amylose-1



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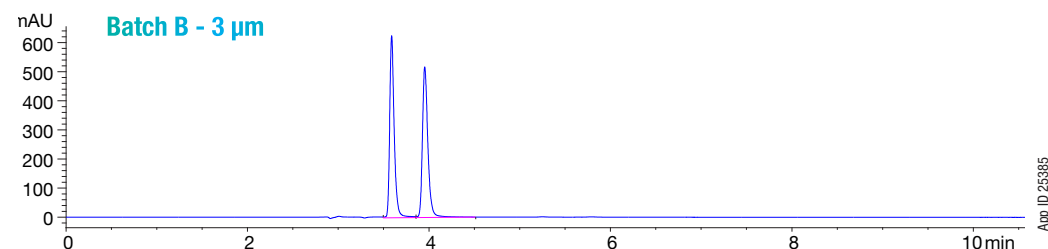
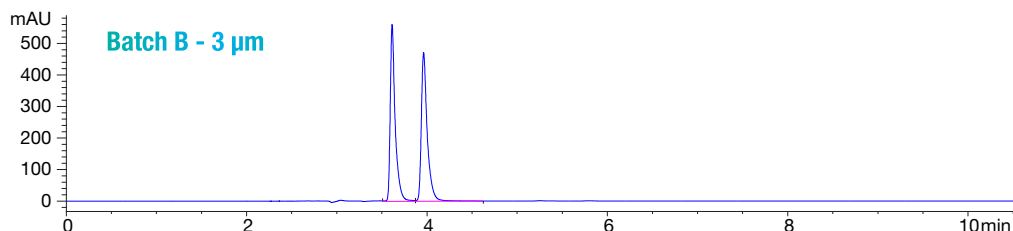
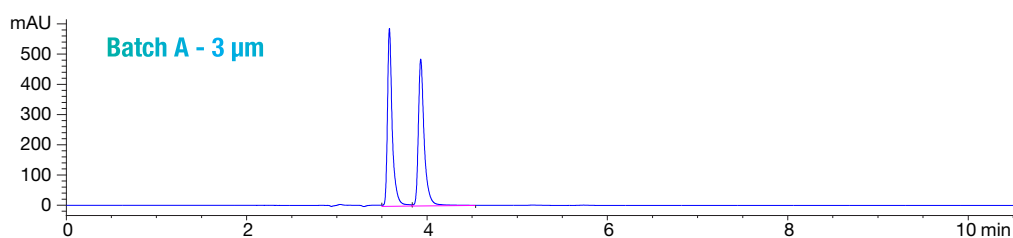
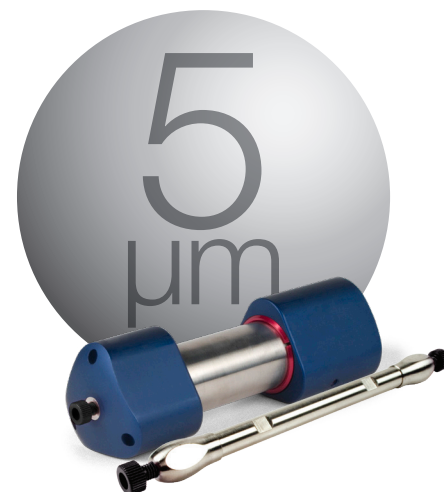
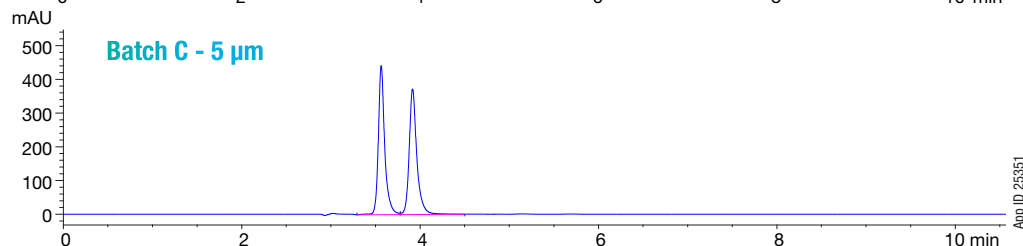
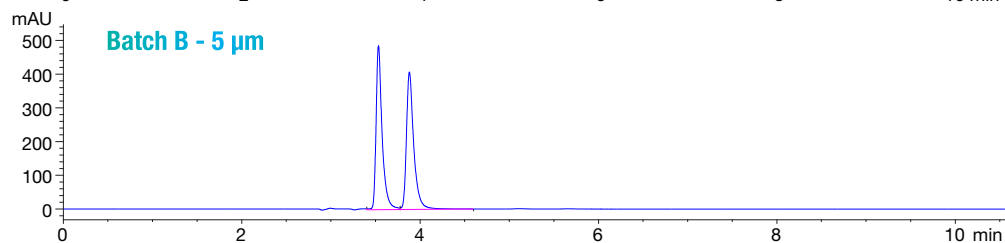
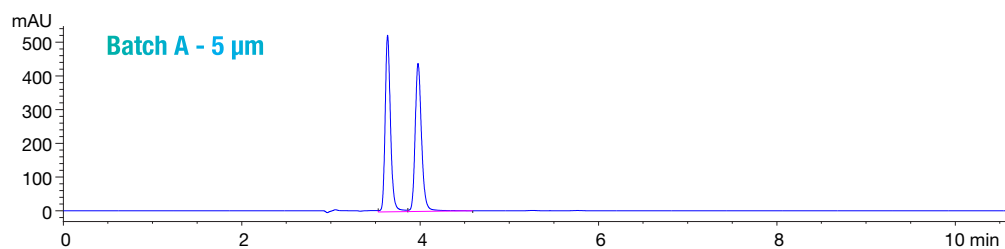
Quality Assurance

Phenomenex's quality management system is ISO 9001:2015 certified. This certification validates that all our processes are fully established, functional and meet international standards. Phenomenex's employees believe that the implementation of our quality system is everyone's responsibility. From the manufacturing of our products to their timely delivery and continued customer support, we are dedicated to continually improve our processes to consistently meet or exceed our customers' expectations.

**QUALITY
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001:2015 =**

Dependability and Seamless Scalability

Our highest standards of quality will ensure that you are fully satisfied with each and every Lux chiral column as consistent quantitation and results come with every Lux batch and column that we manufacture. With matching selectivity, the 3 μ m and 5 μ m i-Amylose-3 particle sizes allow you to scale down to increase resolution or easily scale up for preparative purification work.



Columns: Lux 5 μ m i-Amylose-3
Lux 3 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
00G-4778-E0
Mobile Phase: Methanol with 0.05 % Formic Acid
Flow Rate: 0.6 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detection: UV @ 220 nm
Sample: 1. Carprofen
2. Carprofen



Maximize Chiral Purification Performance with Axia Packed Columns

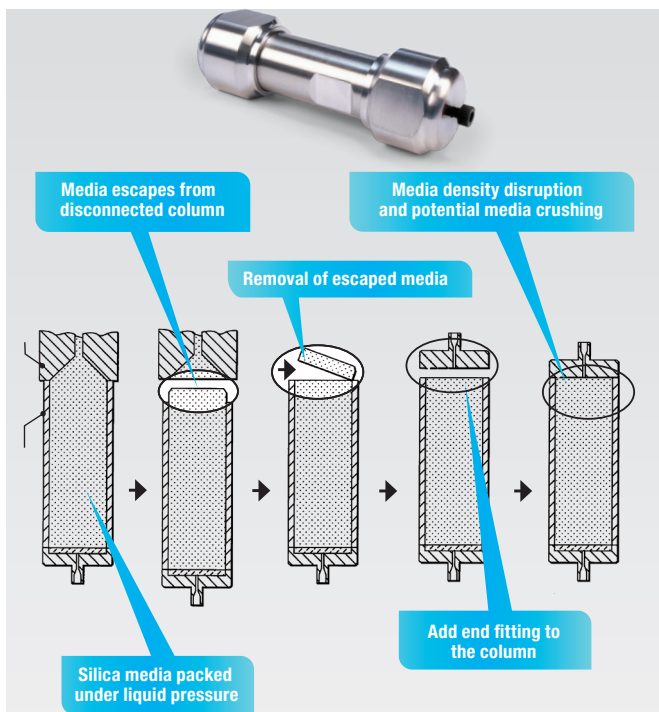
Axia packed preparative columns involve a single axial compression step unlike conventional packed preparative columns like DAICEL® CHIRALCEL® and CHIRALPAK® prep columns. During the Axia packing process, the packing piston is locked in place, eliminating any decompression and then re-compression of the media sorbent, thus maintaining media and column bed integrity.

AXIA Advantages:

- Longer Column Lifetimes
- Improved Column-to-Column Reproducibility
- Recover Higher Compound Purity

Conventional Packing Process Involves:

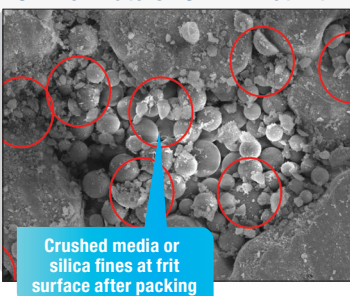
Compression → Decompression →
Re-compression → Final Column



Traditional packed preparative columns produce non-uniform media beds with sheared and crushed particles

Decompression and then recompression during packing can damage the media and lead to increased column-to-column variability, flow disturbances, and decreased column lifetimes.

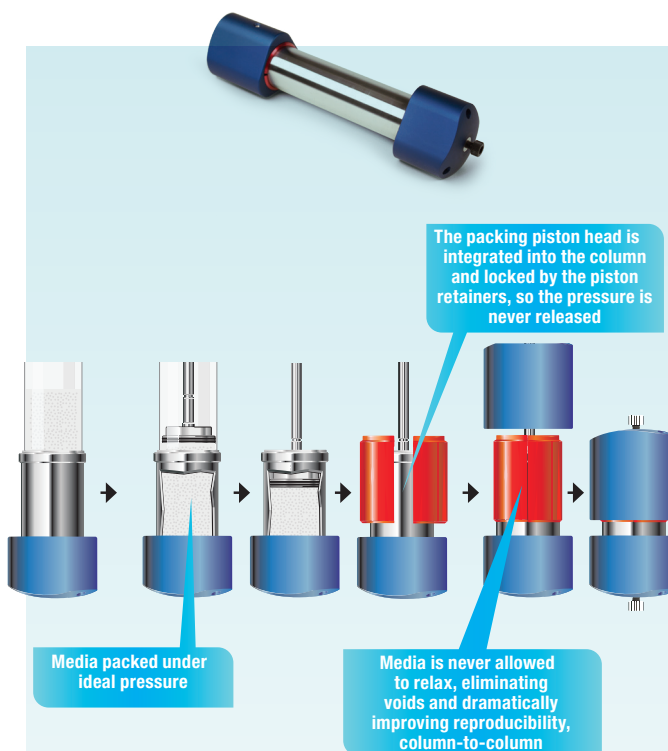
*SEM of Waters® OBD™ inlet frit



*The images are believed to be representative, but individual columns may vary.

Axia Packing Process Involves:

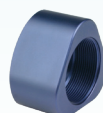
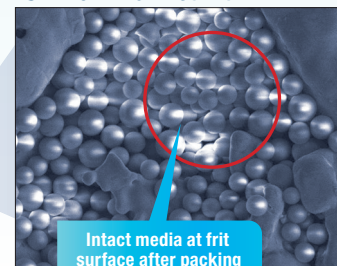
Compression → Final Column



Axia packed columns produce uniform media bed with intact particles

The highly tuned patented process and hardware eliminates potential decompression ensuring bed stability and optimal packing density. The media found on the inlet frit of the Axia packed column shows no signs of damage unlike the media found on inlet frit of traditionally packed prep columns.

*SEM of Axia inlet frit



Ordering Information

3 µm Minibore, MidBore™, and Analytical Columns (mm)									SecurityGuard™ Cartridges (mm)	
Phases	50 x 2.0	150 x 2.0	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*
i-Amylose-3	00B-4778-B0	00F-4778-B0	—	—	00B-4778-E0	00D-4778-E0	00D-4778-E0	00G-4778-E0	AJO-8651	AJO-8650
i-Cellulose-5	00B-4755-B0	00F-4755-B0	00D-4755-Y0	00F-4755-Y0	00B-4755-E0	00D-4755-E0	00F-4755-E0	00G-4755-E0	AJO-8631	AJO-8632
Cellulose-1	00B-4458-B0	00F-4458-B0	00D-4458-Y0	00F-4458-Y0	00B-4458-E0	00D-4458-E0	00F-4458-E0	00G-4458-E0	AJO-8402	AJO-8403
Cellulose-2	00B-4456-B0	00F-4456-B0	00D-4456-Y0	00F-4456-Y0	00B-4456-E0	00D-4456-E0	00F-4456-E0	00G-4456-E0	AJO-8398	AJO-8366
Cellulose-3	00B-4492-B0	00F-4492-B0	00D-4492-Y0	00F-4492-Y0	00B-4492-E0	00D-4492-E0	00F-4492-E0	00G-4492-E0	AJO-8621	AJO-8622
Cellulose-4	00B-4490-B0	00F-4490-B0	00D-4490-Y0	00F-4490-Y0	00B-4490-E0	00D-4490-E0	00F-4490-E0	00G-4490-E0	AJO-8626	AJO-8627
Amylose-1	00B-4729-B0	00F-4729-B0	00D-4729-Y0	00F-4729-Y0	00B-4729-E0	00D-4729-E0	00F-4729-E0	00G-4729-E0	AJO-9337	AJO-9336
Amylose-2	00B-4471-B0	00F-4471-B0	00D-4471-Y0	00F-4471-Y0	00B-4471-E0	00D-4471-E0	00F-4471-E0	00G-4471-E0	AJO-8471	AJO-8470

for ID: 2.0–3.0 mm 3.2–8.0 mm

5 µm Minibore, Analytical and SemiPrep 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	250 x 10	4 x 2.0*	4 x 3.0*	10 x 10‡
i-Amylose-1	—	00B-4762-E0	00D-4762-E0	00F-4762-E0	00G-4762-E0	00G-4762-N0	AJO-8640	AJO-8641	AJO-8642
i-Amylose-3	—	00B-4779-E0	00D-4779-E0	00F-4779-E0	00G-4779-E0	00G-4779-N0	AJO-8651	AJO-8650	AJO-8652
i-Cellulose-5	—	00B-4756-E0	00D-4756-E0	00F-4756-E0	00G-4756-E0	00G-4756-N0	AJO-8631	AJO-8632	AJO-8633
Cellulose-1	00B-4459-B0	00B-4459-E0	00D-4459-E0	00F-4459-E0	00G-4459-E0	00G-4459-N0	AJO-8402	AJO-8403	AJO-8404
Cellulose-2	00B-4457-B0	00B-4457-E0	00D-4457-E0	00F-4457-E0	00G-4457-E0	00G-4457-N0	AJO-8398	AJO-8366	AJO-8399
Cellulose-3	00B-4493-B0	00B-4493-E0	00D-4493-E0	00F-4493-E0	00G-4493-E0	00G-4493-N0	AJO-8621	AJO-8622	AJO-8623
Cellulose-4	00B-4491-B0	00B-4491-E0	00D-4491-E0	00F-4491-E0	00G-4491-E0	00G-4491-N0	AJO-8626	AJO-8627	AJO-8628
Amylose-1	00B-4732-B0	00B-4732-E0	00D-4732-E0	00F-4732-E0	00G-4732-E0	00G-4732-N0	AJO-9337	AJO-9336	AJO-9344
Amylose-2	00B-4472-B0	00B-4472-E0	00D-4472-E0	00F-4472-E0	00G-4472-E0	00G-4472-N0	AJO-8471	AJO-8470	AJO-8472

for ID: 2.0–3.0 mm 3.2–8.0 mm 9–16 mm

5 µm 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*
i-Amylose-1	00F-4762-P0-AX	00G-4762-P0-AX	00G-4762-U0-AX	00G-4762-V0-AX	AJO-8643	AJO-8644
i-Amylose-3	00F-4779-P0-AX	00G-4779-P0-AX	00F-4779-U0-AX	00G-4779-V0-AX	AJO-8653	AJO-8654
i-Cellulose-5	00F-4756-P0-AX	00G-4756-P0-AX	00G-4756-U0-AX	00G-4756-V0-AX	AJO-8634	AJO-8635
Cellulose-1†	00F-4459-P0-AX	00G-4459-P0-AX	00G-4459-U0-AX	00G-4459-V0-AX	AJO-8405	AJO-8406
Cellulose-2†	00F-4457-P0-AX	00G-4457-P0-AX	00G-4457-U0-AX	00G-4457-V0-AX	AJO-8400	AJO-8401
Cellulose-3	00F-4493-P0-AX	00G-4493-P0-AX	00G-4493-U0-AX	00G-4493-V0-AX	AJO-8624	AJO-8625
Cellulose-4	00F-4491-P0-AX	00G-4491-P0-AX	00G-4491-U0-AX	00G-4491-V0-AX	AJO-8629	AJO-8630
Amylose-1	00F-4732-P0-AX	00G-4732-P0-AX	00G-4732-U0-AX	00G-4732-V0-AX	AJO-9338	AJO-9339
Amylose-2	00F-4472-P0-AX	00G-4472-P0-AX	00G-4472-U0-AX	—	AJO-8473	AJO-8474

for ID: 18–29 mm 30–49 mm

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

† SemiPrep SecurityGuard™ Cartridges require holder, Part No.: AJO-9281

**HPLC PREP SecurityGuard Cartridges require holder, Part No.: AJO-8223

SFC PREP SecurityGuard Cartridges require holder, Part No.: AJO-8617

* HPLC PREP SecurityGuard Cartridges require holder, Part No.: AJO-8277

SFC PREP SecurityGuard Cartridges require holder, Part No.: AJO-8618

Bulk Media		
Phases	100 g	1 kg
10 µm	Inquire	Inquire
Cellulose-1	04G-4501	04K-4501
Cellulose-2	04G-4502	04K-4502
Cellulose-3	04G-4624	04K-4624
Cellulose-4	04G-4625	04K-4625
20 µm	Inquire	Inquire
Cellulose-1	04G-4473	04K-4473
Cellulose-2	04G-4464	04K-4464
Cellulose-3	04G-4504	04K-4504
Cellulose-4	04G-4503	04K-4503

Please inquire for 20 µm Lux Amylose-2 media.



Prep Guard Cartridge Holder		
Part No.	Description	Unit
AJO-8223	HPLC Holder Kit for 21.2 mm ID cartridges, includes column coupler	ea
AJO-8617	SFC Holder Kit for 21.2 mm ID cartridges, includes column coupler	ea

Prep Guard Cartridge Holder		
Part No.	Description	Unit
AJO-8277	HPLC Holder Kit for 30.0 mm ID cartridges, includes column coupler	ea
AJO-8618	SFC Holder Kit for 30.0 mm ID cartridges, includes column coupler	ea



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Belgium

t: +32 (0)2 503 4015 (French)
t: +32 (0)2 511 8666 (Dutch)
beinfo@phenomenex.com

Canada

t: +1 (800) 543-3681
info@phenomenex.com

China

t: +86 400-606-8099
cninfo@phenomenex.com

Denmark

t: +45 4824 8048
nordicinfo@phenomenex.com

Finland

t: +358 (0)9 4789 0063
nordicinfo@phenomenex.com

France

t: +33 (0)1 30 09 21 10
franceinfo@phenomenex.com

Germany

t: +49 (0)6021-58830-0
anfrage@phenomenex.com

India

t: +91 (0)40-3012 2400
indiainfo@phenomenex.com

Ireland

t: +353 (0)1 247 5405
eireinfo@phenomenex.com

Italy

t: +39 051 6327511
italiainfo@phenomenex.com

Luxembourg

t: +31 (0)30-2418700
nlinfo@phenomenex.com

Mexico

t: 01-800-844-5226
tecnicomx@phenomenex.com

The Netherlands

t: +31 (0)30-2418700
nlinfo@phenomenex.com

New Zealand

t: +64 (0)9-4780951
nzinfo@phenomenex.com

Norway

t: +47 810 02 005
nordicinfo@phenomenex.com

Portugal

t: +351 221 450 488
ptinfo@phenomenex.com

Singapore

t: +65 800-852-3944
sginfo@phenomenex.com

Spain

t: +34 91-413-8613
espinfo@phenomenex.com

Sweden

t: +46 (0)8 611 6950
nordicinfo@phenomenex.com

Switzerland

t: +41 (0)61 692 20 20
swissinfo@phenomenex.com

Taiwan

t: +886 (0) 0801-49-1246
twinfo@phenomenex.com

United Kingdom

t: +44 (0)1625-501367
ukinfo@phenomenex.com

USA

t: +1 (310) 212-0555
info@phenomenex.com

All other countries Corporate Office USA

t: +1 (310) 212-0555
info@phenomenex.com



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Axia column and packing technology is patented by Phenomenex. U.S. Patent No. 7, 674, 383. SecurityGuard is patented by Phenomenex. U.S. Patent No. 6,162,362.

CAUTION: this patent only applies to the analytical-sized guard cartridge holder, and does not apply to SemiPrep, PREP or ULTRA holders, or to any cartridges.

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