

# Immobilized and Coated Polysaccharide Chiral Applications



- Enantioselective
- Scalable
- Dependable
- Affordable

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## Technical Chat

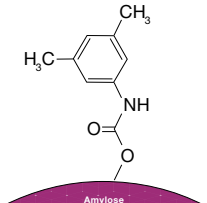
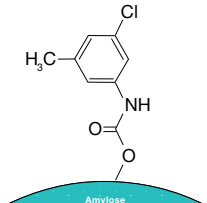
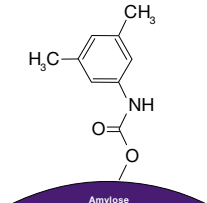
All the answers you need 24/7

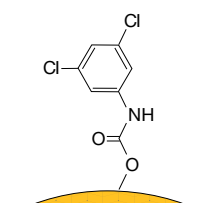
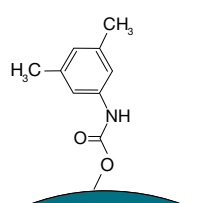
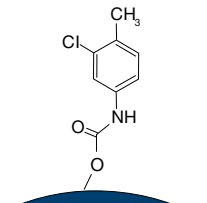
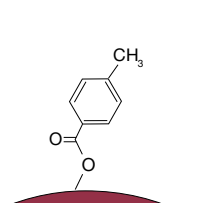
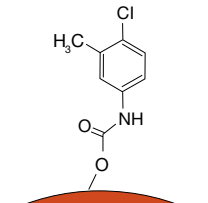
[www.phenomenex.com/chat](http://www.phenomenex.com/chat)



# Discover Lux™ Polysaccharide Stationary Phases for Your Chiral Separation



IMMOBILIZED Amylose		COATED Amylose
<p><b>Lux i-Amylose-1</b> Amylose tris (3,5-dimethylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALPAK IA® and IA-3</p>	<p><b>Lux i-Amylose-3</b> Amylose tris (3-chloro-5-methylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALPAK IG® and IG-3</p>	<p><b>Lux Amylose-1</b> Amylose tris (3,5-dimethylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALPAK AD®, AD-H®, AD-3, AD-RH®, and AD-3R</p>

IMMOBILIZED Cellulose	COATED Cellulose			
<p><b>Lux i-Cellulose-5</b> Cellulose tris (3,5-dichlorophenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALPAK IC® and IC-3</p>	<p><b>Lux Cellulose-1</b> Cellulose tris (3,5-dimethylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALCEL® OD®, OD-H®, OD-3, OD-RH®, and OD-3R</p>	<p><b>Lux Cellulose-2</b> Cellulose tris (3-chloro-4-methylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALCEL OZ, OZ-H®, OZ-3, OZ-RH, and OZ-3R</p>	<p><b>Lux Cellulose-3</b> Cellulose tris (4-methylbenzoate)</p>  <p>Guaranteed Alternative to CHIRALCEL OJ®, OJ-H®, OJ-3, OJ-RH®, and OJ-3R</p>	<p><b>Lux Cellulose-4</b> Cellulose tris (4-chloro-3-methylphenylcarbamate)</p>  <p>Guaranteed Alternative to CHIRALCEL OX-H, OX-3, OX-RH, and OX-3R</p>



## Why Choose Lux Chiral Columns?

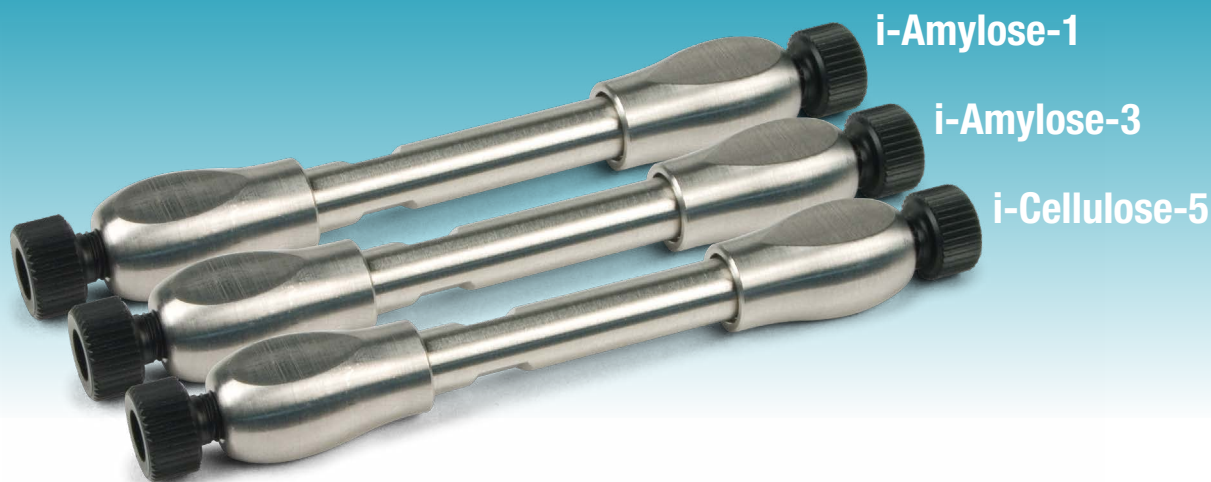
- Suitable for normal phase, polar organic, SFC, and reversed phase conditions
- 3 µm and 5 µm packed columns, as well as 10 µm and 20 µm bulk media for scale up
- Pressure stable up to 300 bar
- High efficiency and loading capacity
- PhenoLogix Free chiral screening!
- Easy scale up to Preparative Axia™ column dimensions

# Easily Upgrade from Your Existing Chiral Columns to Affordable Lux Polysaccharide 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)
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)

## THREE Immobilized Chiral Phases for Greater Selectivity and Solvent Compatibility



# Simplify your Chiral Method Development with an Easy Strategy

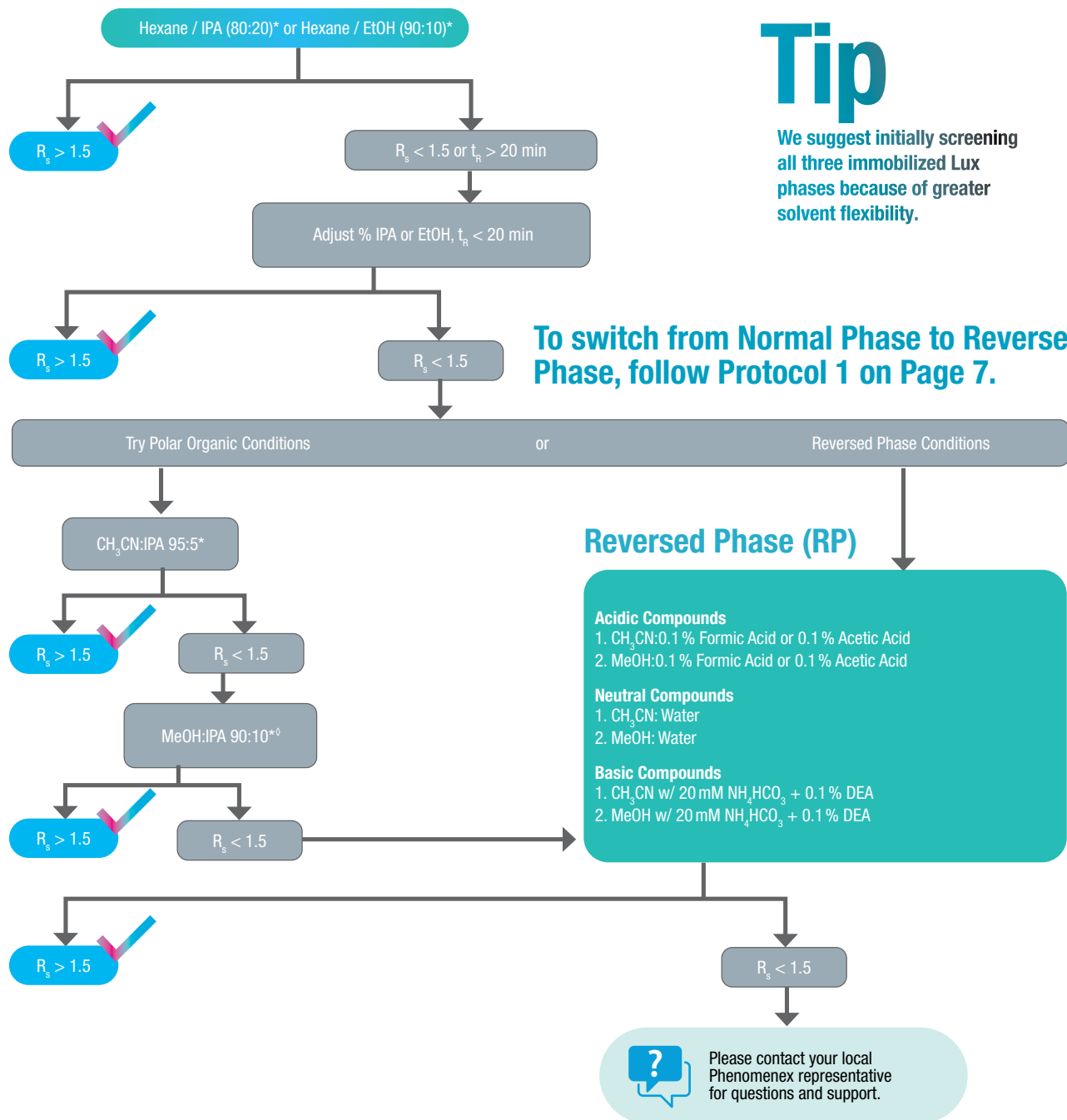
## HPLC Screen

### Normal Phase (NP)

Your Lux Polysaccharide column is generally shipped in Normal Phase Mode

# 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 4.6mm. For faster screening, use shorter columns.

\* Use 0.1 % DEA with basic and neutral compounds and 0.1 % HCOOH with acidic and neutral compounds

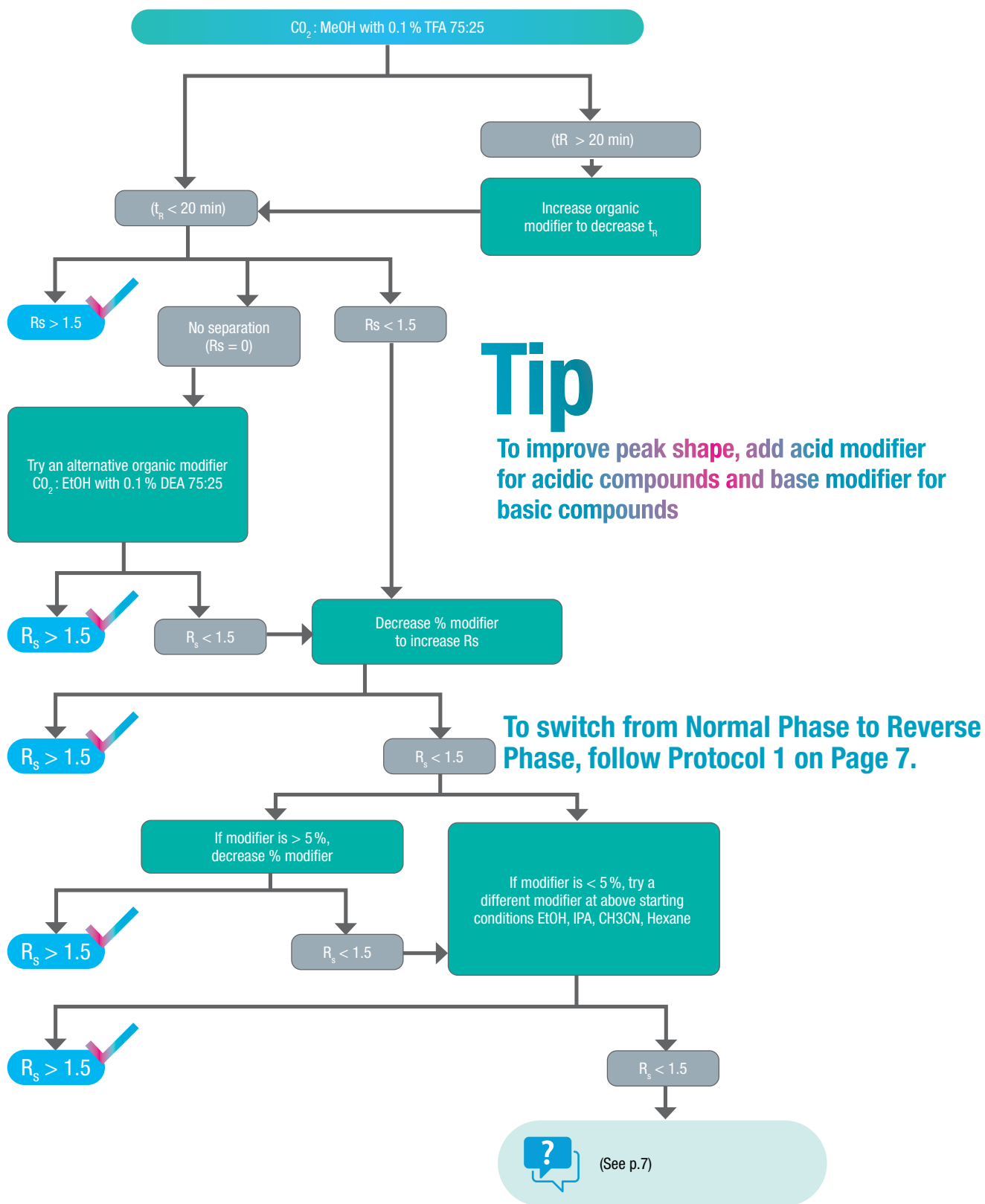
<sup>0</sup> Changing % IPA in methanol can be occasionally beneficial

#### Abbreviations

IPA: Isopropanol; DEA: Diethylamine; MeOH: Methanol; CH<sub>3</sub>CN: Acetonitrile; EtOH: Ethanol; CH<sub>3</sub>COONH<sub>4</sub>: Ammonium acetate; HCOOH: Formic acid; NH<sub>4</sub>HCO<sub>3</sub>: Ammonium bicarbonate; CO<sub>2</sub>: Carbon Dioxide

# SFC Screen

To switch from Normal Phase to SFC, follow Protocol 3 on Page 7.



## Tip

To improve peak shape, add acid modifier for acidic compounds and base modifier for basic compounds

To switch from Normal Phase to Reverse Phase, follow Protocol 1 on Page 7.

## Solvent Switching Protocols

Lux™ columns are generally shipped in 90% Hexane:10% IPA

### Solvent Switch From:

### Solvent Switch to:

#### Protocol 1

Normal Phase

Flush your column with ten column volumes of MeOH: EtOH 90:10 at a flow rate of 0.5 mL/min  
Followed by your mobile phase for 10 column volumes.

Polar Organic  
or Reversed Phase\*\*

#### Protocol 2

Polar Organic

Flush your column with ten column volumes of MeOH: EtOH 90:10 at a flow rate of 0.5 mL/min  
Followed by your mobile phase for 10 column volumes.

Normal Phase

#### Protocol 3

Normal Phase

Flush your column with ten column volumes of MeOH: EtOH 90:10 at a flow rate of 0.5 mL/min  
Followed by your SFC mobile phase for 10 column volumes. Lower the flow rate to 0.3 mL/min until the methanol/ethanol flushed out.

SFC

# Tip

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

## Chiral Screening



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

You can also visit us online:

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

or email us at:

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

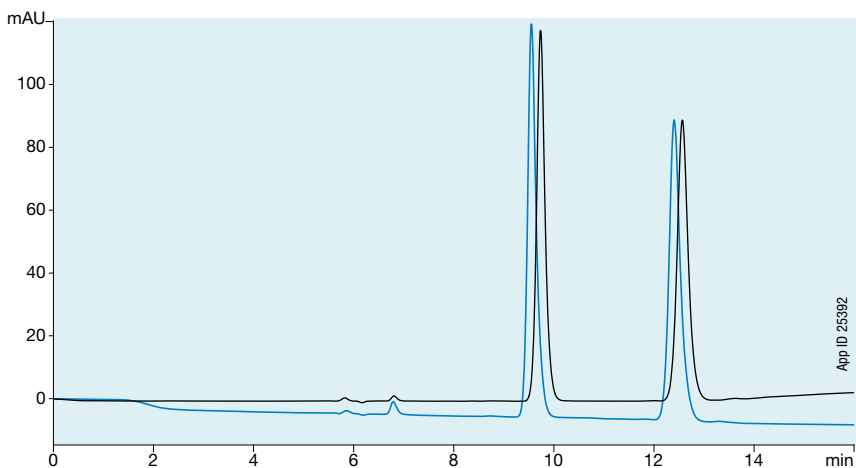
# Overcome Strong Solvent Challenges Using Lux™ Immobilized Chiral Stationary Phases

## 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.

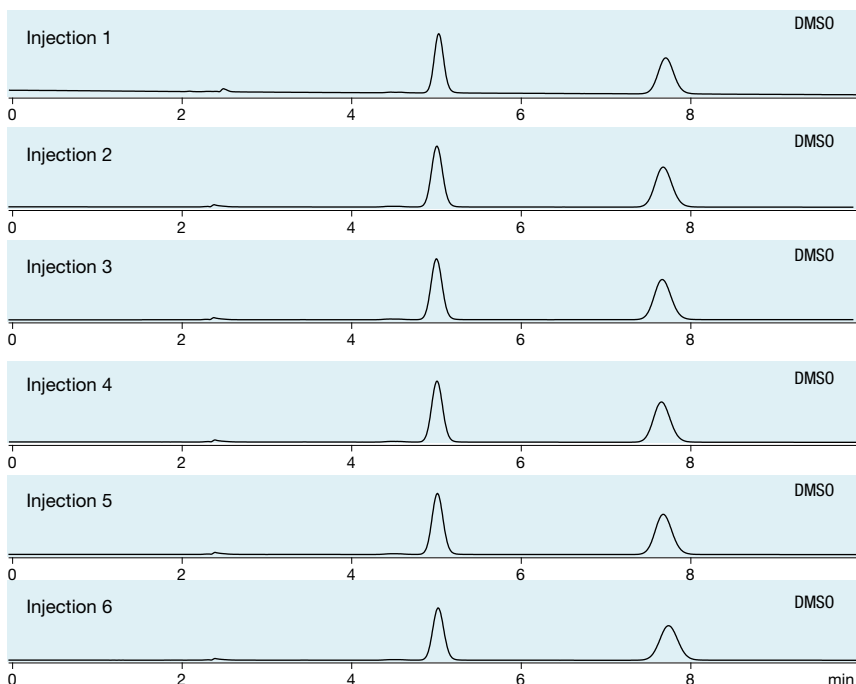
Conditions for all separations:

- 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 i-Amylose-3 Applications

-  [Chiral Separation of Chlormezanone Under Polar Organic Conditions](#)
-  [Chiral Separation of Thalidomide Under Polar Organic Conditions](#)
-  [Chiral Separation of Diniconazole Under Reversed Phase Conditions](#)
-  [Chiral Separation of Epoxiconazole Under Reversed Phase Conditions](#)
-  [Chiral Separation of Paclitaxel Under Reversed Phase Conditions](#)
-  [Chiral Separation of Oxybutynin Under Normal Phase Conditions](#)

## Lux i-Cellulose-5 Applications


-  [Chiral Separation of Atomoxetine Under Normal Phase Conditions](#)
-  [Chiral Separation of Zopiclone Under Reversed Phase Conditions](#)
-  [Chiral Separation of Guaifenesin Under Normal Phase Conditions](#)
-  [Chiral Separation of Atomoxetine and its S-Enantiomer Under Normal Phase Conditions](#)

## Lux i-Amylose-1 Applications

-  [Chiral Separation of Naproxen Under Normal Phase Conditions](#)
-  [Chiral Separation of Lorazepam Under Normal Phase Conditions](#)
-  [Chiral Separation of Flavanone Under Polar Organic Conditions](#)
-  [Enantiomeric Purity Analysis of the Drug Product Atorvastatin on Lux Amylose-1 According to the USP Monograph 2263](#)
-  [Seamless Particle Scalability Between 3 µm and 5 µm Lux Amylose-1 Chiral Columns](#)
-  [Chiral Separation of Levetiracetam Using the USP Method on the Latest L51 USP Column—Lux Amylose-1](#)
-  [Chiral Separation of the Drug Product Tamsulosin Hydrochloride According to Ph. Eur. Monograph 2131](#)
-  [Chiral Separation of the Drug Product Sertraline Hydrochloride According to Ph. Eur. Monograph 1705](#)

Applications




## Lux Coated Applications

-  [Performance Evaluation of Immobilized and Coated Polysaccharide Chiral HPLC Columns Using Generic Screening Mobile Phase Systems](#)

## Lux SFC Applications

-  [Direct Comparison of HPLC and SFC for the Milligram to Gram Scale Purification of Enantiomers](#)
-  [Novel Screening Approach for the Separation of Pharmaceutical Compounds using Lux Polysaccharide-Based Chiral Stationary Phases in SFC Mode](#)
-  [Screening Approach for the Separation of Pharmaceutical Compounds using Lux Polysaccharide-Based Chiral Stationary Phases in SFC Mode](#)
-  [Fast and Efficient Separation of Ten Naturally Occurring Cannabinoids by Supercritical Fluid Chromatography \(SFC\) using Lux® 5 µm Cellulose-2 Column](#)
-  [Screening Approach for the Separation of Pharmaceutical Compounds using Lux Polysaccharide-Based Chiral Stationary Phases in SFC Mode](#)

## Axia Applications

-  [Scaling from Analytical to Preparative Chiral Chromatography While Balancing Purity, Yield, and Throughput under HPLC and SFC Conditions](#)
-  [Purification of Optically Active Pharmaceutical Compounds using Axial Compressed Columns](#)
-  [Purification of Optically Active Pharmaceutical Compounds using Axial Compressed Columns](#)

# Applications

# Ordering Information

3 µm 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	<a href="#">00B-4778-B0</a>	<a href="#">00F-4778-B0</a>	—	—	<a href="#">00B-4778-E0</a>	<a href="#">00D-4778-E0</a>	<a href="#">00F-4778-E0</a>	<a href="#">00G-4778-E0</a>	<a href="#">AJ0-8651</a>	<a href="#">AJ0-8650</a>
i-Cellulose-5	<a href="#">00B-4755-B0</a>	<a href="#">00F-4755-B0</a>	<a href="#">00D-4755-Y0</a>	<a href="#">00F-4755-Y0</a>	<a href="#">00B-4755-E0</a>	<a href="#">00D-4755-E0</a>	<a href="#">00F-4755-E0</a>	<a href="#">00G-4755-E0</a>	<a href="#">AJ0-8631</a>	<a href="#">AJ0-8632</a>
Cellulose-1	<a href="#">00B-4458-B0</a>	<a href="#">00F-4458-B0</a>	<a href="#">00D-4458-Y0</a>	<a href="#">00F-4458-Y0</a>	<a href="#">00B-4458-E0</a>	<a href="#">00D-4458-E0</a>	<a href="#">00F-4458-E0</a>	<a href="#">00G-4458-E0</a>	<a href="#">AJ0-8402</a>	<a href="#">AJ0-8403</a>
Cellulose-2	<a href="#">00B-4456-B0</a>	<a href="#">00F-4456-B0</a>	<a href="#">00D-4456-Y0</a>	<a href="#">00F-4456-Y0</a>	<a href="#">00B-4456-E0</a>	<a href="#">00D-4456-E0</a>	<a href="#">00F-4456-E0</a>	<a href="#">00G-4456-E0</a>	<a href="#">AJ0-8398</a>	<a href="#">AJ0-8366</a>
Cellulose-3	<a href="#">00B-4492-B0</a>	<a href="#">00F-4492-B0</a>	<a href="#">00D-4492-Y0</a>	<a href="#">00F-4492-Y0</a>	<a href="#">00B-4492-E0</a>	<a href="#">00D-4492-E0</a>	<a href="#">00F-4492-E0</a>	<a href="#">00G-4492-E0</a>	<a href="#">AJ0-8621</a>	<a href="#">AJ0-8622</a>
Cellulose-4	<a href="#">00B-4490-B0</a>	<a href="#">00F-4490-B0</a>	<a href="#">00D-4490-Y0</a>	<a href="#">00F-4490-Y0</a>	<a href="#">00B-4490-E0</a>	<a href="#">00D-4490-E0</a>	<a href="#">00F-4490-E0</a>	<a href="#">00G-4490-E0</a>	<a href="#">AJ0-8626</a>	<a href="#">AJ0-8627</a>
Amylose-1	<a href="#">00B-4729-B0</a>	<a href="#">00F-4729-B0</a>	<a href="#">00D-4729-Y0</a>	<a href="#">00F-4729-Y0</a>	<a href="#">00B-4729-E0</a>	<a href="#">00D-4729-E0</a>	<a href="#">00F-4729-E0</a>	<a href="#">00G-4729-E0</a>	<a href="#">AJ0-9337</a>	<a href="#">AJ0-9336</a>

for ID: 2.0–3.0 mm    3.2–8.0 mm

5 µm 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*
i-Amylose-1	—	<a href="#">00B-4762-E0</a>	<a href="#">00D-4762-E0</a>	<a href="#">00F-4762-E0</a>	<a href="#">00G-4762-E0</a>	<a href="#">AJ0-8640</a>	<a href="#">AJ0-8641</a>
i-Amylose-3	—	<a href="#">00B-4779-E0</a>	<a href="#">00D-4779-E0</a>	<a href="#">00F-4779-E0</a>	<a href="#">00G-4779-E0</a>	<a href="#">AJ0-8651</a>	<a href="#">AJ0-8650</a>
i-Cellulose-5	—	<a href="#">00B-4756-E0</a>	<a href="#">00D-4756-E0</a>	<a href="#">00F-4756-E0</a>	<a href="#">00G-4756-E0</a>	<a href="#">AJ0-8631</a>	<a href="#">AJ0-8632</a>
Cellulose-1	—	<a href="#">00B-4459-E0</a>	<a href="#">00D-4459-E0</a>	<a href="#">00F-4459-E0</a>	<a href="#">00G-4459-E0</a>	<a href="#">AJ0-8402</a>	<a href="#">AJ0-8403</a>
Cellulose-2	<a href="#">00B-4457-B0</a>	<a href="#">00B-4457-E0</a>	<a href="#">00D-4457-E0</a>	<a href="#">00F-4457-E0</a>	<a href="#">00G-4457-E0</a>	<a href="#">AJ0-8398</a>	<a href="#">AJ0-8366</a>
Cellulose-3	—	<a href="#">00B-4493-E0</a>	<a href="#">00D-4493-E0</a>	<a href="#">00F-4493-E0</a>	<a href="#">00G-4493-E0</a>	<a href="#">AJ0-8621</a>	<a href="#">AJ0-8622</a>
Cellulose-4	—	—	<a href="#">00D-4491-E0</a>	<a href="#">00F-4491-E0</a>	<a href="#">00G-4491-E0</a>	<a href="#">AJ0-8626</a>	<a href="#">AJ0-8627</a>
Amylose-1	<a href="#">00B-4732-B0</a>	—	<a href="#">00D-4732-E0</a>	<a href="#">00F-4732-E0</a>	<a href="#">00G-4732-E0</a>	<a href="#">AJ0-9337</a>	<a href="#">AJ0-9336</a>

for ID: 2.0–3.0 mm    3.2–8.0 mm

5 µm Semi-Prep Columns (mm)			SecurityGuard Cartridges (mm)
Phases	150 x 10.0	250 x 10.0	10 x 10.0*
Cellulose-1†	<a href="#">00F-4459-N0</a>	<a href="#">00G-4459-N0</a>	<a href="#">AJ0-8404</a>
Cellulose-2†	<a href="#">00F-4457-N0</a>	<a href="#">00G-4457-N0</a>	<a href="#">AJ0-8399</a>
Cellulose-3	—	<a href="#">00G-4493-N0</a>	<a href="#">AJ0-8623</a>
Cellulose-4	—	<a href="#">00G-4491-N0</a>	<a href="#">AJ0-8628</a>

for ID: 9–16 mm

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

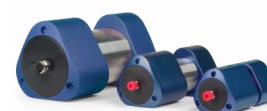
Bulk Media		
Phases	100 g	1 kg
<b>10 µm</b>		
Cellulose-1	<a href="#">04G-4501</a>	<a href="#">04K-4501</a>
Cellulose-2	<a href="#">04G-4502</a>	<a href="#">04K-4502</a>
Cellulose-3	<a href="#">04G-4624</a>	<a href="#">04K-4624</a>
Cellulose-4	<a href="#">04G-4625</a>	<a href="#">04K-4625</a>
<b>20 µm</b>		
Cellulose-1	<a href="#">04G-4473</a>	<a href="#">04K-4473</a>
Cellulose-2	<a href="#">04G-4464</a>	<a href="#">04K-4464</a>
Cellulose-3	<a href="#">04G-4504</a>	<a href="#">04K-4504</a>
Cellulose-4	<a href="#">04G-4503</a>	<a href="#">04K-4503</a>

Please inquire for 20 µm Lux Amylose-2 media.



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*
Cellulose-1†	<a href="#">00F-4459-P0-AX</a>	<a href="#">00G-4459-P0-AX</a>	<a href="#">00G-4459-U0-AX</a>	<a href="#">00G-4459-V0-AX</a>	<a href="#">AJ0-8405</a>	<a href="#">AJ0-8406</a>
Cellulose-2†	<a href="#">00F-4457-P0-AX</a>	<a href="#">00G-4457-P0-AX</a>	<a href="#">00G-4457-U0-AX</a>	<a href="#">00G-4457-V0-AX</a>	<a href="#">AJ0-8400</a>	<a href="#">AJ0-8401</a>
Cellulose-3	<a href="#">00F-4493-P0-AX</a>	<a href="#">00G-4493-P0-AX</a>	<a href="#">00G-4493-U0-AX</a>	<a href="#">00G-4493-V0-AX</a>	<a href="#">AJ0-8624</a>	<a href="#">AJ0-8625</a>
Cellulose-4	<a href="#">00F-4491-P0-AX</a>	<a href="#">00G-4491-P0-AX</a>	<a href="#">00G-4491-U0-AX</a>	<a href="#">00G-4491-V0-AX</a>	<a href="#">AJ0-8629</a>	<a href="#">AJ0-8630</a>

for ID: 18–29 mm    30–49 mm



\*SecurityGuard Analytical Cartridges require holder, Part No.: [KJ0-4282](#)  
 †SemiPrep SecurityGuard™ Cartridges require holder, Part No.: [AJ0-7220](#)

\*\*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.: [AJ0-8277](#)  
 SFC PREP SecurityGuard Cartridges require holder, Part No.: [AJ0-8618](#)

## Column Performance Check Standard

Part No.	Description	Unit
<a href="#">AL0-8412</a>	Chiral Test Mix No. 5 (Lux)	ea



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# Preparative Guard Cartridge Holder Replacement Parts and Accessories



## Preparative Holder (Two Sizes)

For 21.2 mm ID cartridges, use with 18 to 29 mm ID columns

Part No.	Description	Unit
<a href="#">AJ0-8223</a>	HPLC Holder Kit for 21.2 mm ID cartridges, includes column coupler	ea
<a href="#">AJ0-8617</a>	SFC Holder Kit for 21.2 mm ID cartridges, includes column coupler	ea

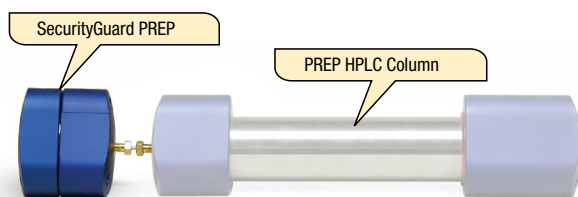
## Prep Guard Cartridge Holder

For 30.0 mm ID cartridges, use with 30 to 49 mm ID columns

Part No.	Description	Unit
<a href="#">AJ0-8277</a>	HPLC Holder Kit for 30.0 mm ID cartridges, includes column coupler	ea
<a href="#">AJ0-8618</a>	SFC Holder Kit for 30.0 mm ID cartridges, includes column coupler	ea

## Replacement Parts and Accessories

Part No.	Description	Unit
<a href="#">AQ0-8374</a>	PREP Coupler, SS w / PEEK Ferrule Inserts, 10-32 Threads, 1/16 in. OD x 0.020 in. ID	ea
<a href="#">AQ0-8375</a>	Replacement Ferrule Inserts, for PREP Coupler, PEEK, 0.020 in. ID	10/pk
<a href="#">AQ0-8222</a>	PREP Replacement O-Rings, Kalrez® For 15 x 21.2 mm SG HPLC Holder, Size 2-021	2/pk
<a href="#">AQ0-8318</a>	PREP Replacement O-Rings, Kalrez For 15 x 30 mm SG HPLC Holder, Size 2-025	2/pk
<a href="#">AQ0-8500</a>	PREP Replacement O-Rings, Teflon® For 15 x 21.2 mm SG SFC Holder, Size 2-021	2/pk
<a href="#">AQ0-8501</a>	PREP Replacement O-Rings, Teflon For 15 x 30 mm SG SFC Holder, Size 2-025	2/pk
<a href="#">AT0-0465</a>	Capillary S.S. Tubing, 0.020 in. ID x 0.062 in. (1/16 in.) OD x 10 cm length	5/pk
<a href="#">AT0-0466</a>	Capillary S.S. Tubing, 0.020 in. ID x 0.062 in. (1/16 in.) OD x 20 cm length	5/pk



Holders		Cartridges
PREP	SFC	
21.2 mm ID HPLC Holder	21.2 mm ID SFC Holder	Cartridge (15 x 21.2 mm ID)
30 mm ID HPLC Holder	30 mm ID SFC Holder	Cartridge (15 x 30.0 mm ID)
O-Rings		Coupler
Kalrez O-Rings	Teflon O-Rings	PREP Coupler



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

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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