

# Immobilized and Coated Polysaccharide Chiral Applications



- Enantioselective
- Scalable
- Dependable
- Affordable

# Contents



|                                                                                         |    |
|-----------------------------------------------------------------------------------------|----|
| Lux™ Polysaccharide Stationary Phases .....                                             | 3  |
| Your Chiral Method Development .....                                                    | 4  |
| Overcome Strong Solvent Challenges Using Lux Immobilized Chiral Stationary Phases ..... | 5  |
| Immobilized Polysaccharide New Phases Highlight.....                                    | 6  |
| Lux Immobilized Applications                                                            |    |
| Lux i-Amylose-1 .....                                                                   | 7  |
| Lux i-Amylose-3 .....                                                                   | 7  |
| Lux i-Cellulose-5 .....                                                                 | 7  |
| Lux Coated Applications .....                                                           | 8  |
| Lux SFC Applications .....                                                              | 9  |
| Axia Applications .....                                                                 | 10 |
| Lux Amp Applications .....                                                              | 11 |
| Order Information .....                                                                 | 12 |

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

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



## 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

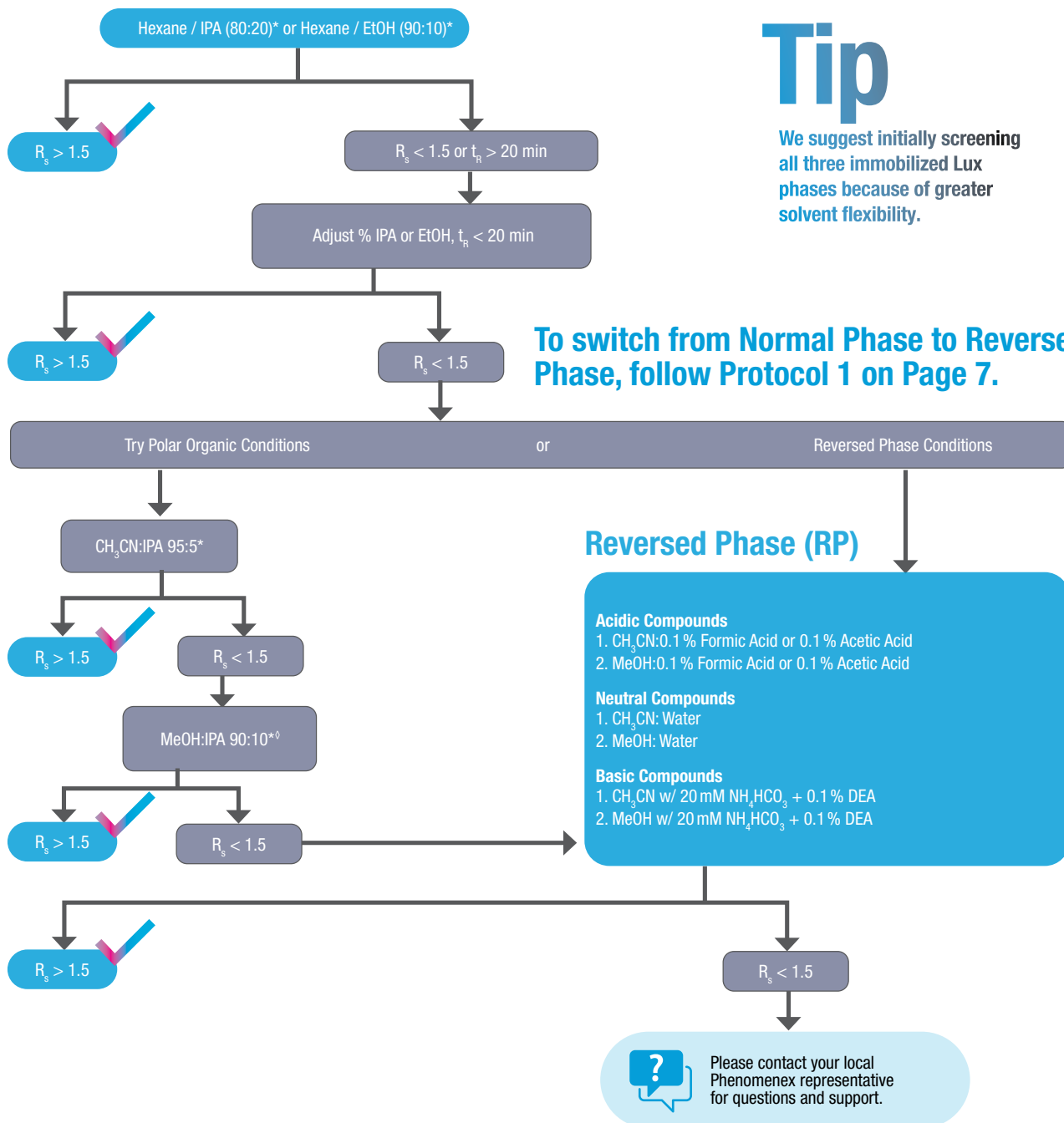
### Normal Phase (NP)

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.

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



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

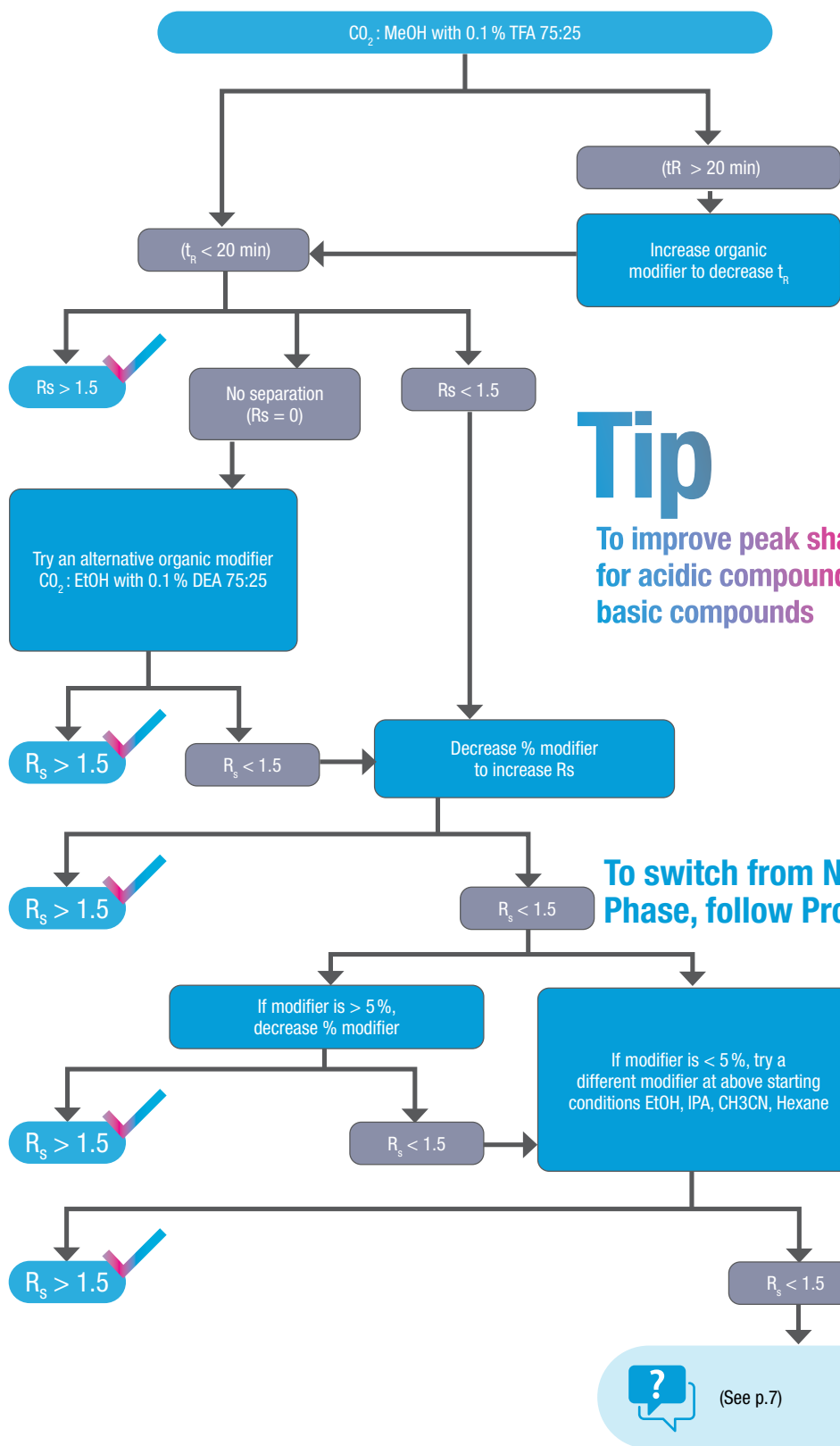
◇ Changing % IPA in methanol can be occasionally beneficial

#### 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)

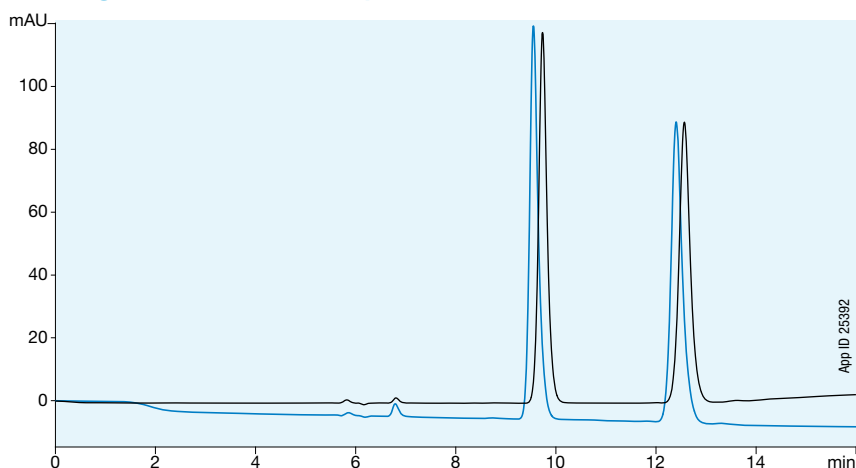
# Overcome Strong Solvent Challenges Using Lux™ Immobilized Chiral Stationary Phases

## 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:

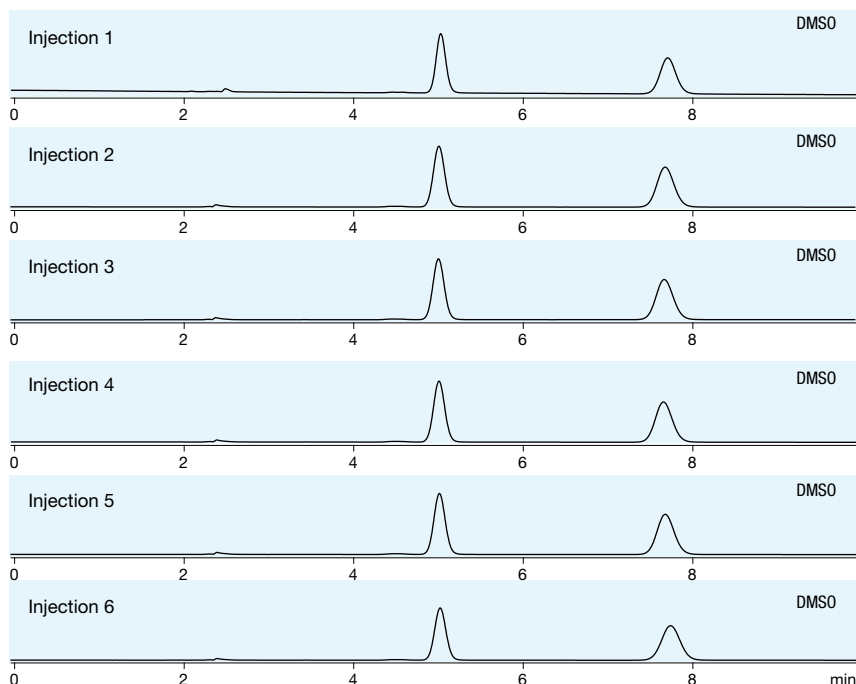
**Columns:** Lux 5 µm i-Amylose-3  
**Dimensions:** 250 x 4.6 mm  
**Part No.:** [00G-4779-E0](#)  
**Mobile Phase:** Hexane/Isopropanol with 0.1 % Diethylamine (80/20)  
**Flow Rate:** 0.5 mL/min  
**Injection Volume:** 10 µL (2 mg/mL)  
**Detection:** UV @ 220 nm  
**Sample:** 1. Trans-Stilbene Oxide  
 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 Paclobutrazol 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  \$\mu\$ m and 5  \$\mu\$ m 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](#)
-  [Separation of Solifenacin Succinate Stereoisomers per USP Monograph](#)
-  [Enantiomeric Purity of Sitagliptin Phosphate per USP Monograph](#)
-  [Limit of Lacosamide S-nantiomer in USP Lacosamide Drug Substance](#)
-  [Chiral Separation of the Drug Product Lacosamide According to Ph. Eur. Monograph 2992](#)
-  [Enantiomeric Purity Analysis of Zolmitriptan According to Ph. Eur. Monograph 2737](#)

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<sup>®</sup> 5  \$\mu\$ m Cellulose-2 Column](#)

## 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><br>/10pk | <a href="#">AJ0-8650</a><br>/10pk |
| 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><br>/10pk | <a href="#">AJ0-8641</a><br>/10pk |
| 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*                    |
|                             |                             |                             | /3pk                          |
| 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.

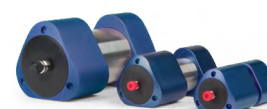
| Bulk Media   |                          |                          |
|--------------|--------------------------|--------------------------|
| Phases       | 100 g                    | 1 kg                     |
| <b>10 µm</b> |                          |                          |
| Cellulose-1  | <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*               |
|                                           |                                |                                |                                |                                | /ea                           | /ea                      |
| 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   |



**BE-HAPPY™**  
GUARANTEE

Your happiness is our mission. Take 45 days to try our products. If you are not happy, we'll make it right.  
[www.phenomenex.com/behappy](http://www.phenomenex.com/behappy)

# 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   |

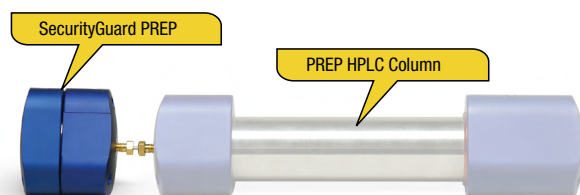
## Prep Guard Cartridge Holder

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                                                                          |



**Australia**  
t: +61 (0)2-9428-6444  
auinfo@phenomenex.com

**Austria**  
t: +43 (0)1-319-1301  
anfrage@phenomenex.com

**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

**Czech Republic**  
t: +420 272 017 077  
cz-info@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

**Hong Kong**  
t: +852 6012 8162  
hkinfo@phenomenex.com

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

**Indonesia**  
t: +62 21 3952 5747  
indoinfo@phenomenex.com

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

**Italy**  
t: +39 051 6327511  
italiainfo@phenomenex.com

**Japan**  
t: +81 (0) 120-149-262  
jpinfo@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

**Poland**  
t: +48 22 51 02 180  
pl-info@phenomenex.com

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

**Singapore**  
t: 800-852-3944  
sginfo@phenomenex.com

**Slovakia**  
t: +420 272 017 077  
sk-info@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

**Thailand**  
t: +66 (0) 2 566 0287  
thaiinfo@phenomenex.com

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

**USA**  
t: +1 (310) 212-0555  
www.phenomenex.com/chat

🌐 **All other countries/regions**  
**Corporate Office USA**  
t: +1 (310) 212-0555  
www.phenomenex.com/chat



**www.phenomenex.com**

Phenomenex products are available worldwide. For the distributor in your country/region, contact Phenomenex USA, International Department at international@phenomenex.com

Subject to Phenomenex Standard Terms and Conditions which may be viewed at [www.phenomenex.com/TermsAndConditions](http://www.phenomenex.com/TermsAndConditions).

Axia, BE-HAPPY, Lux, and SecurityGuard are trademarks of Phenomenex. DAICEL, CHIRALCEL, CHIRALPAK, AD, AD-H, AD-RH, AY, AY-H, IA, IC, IG, OD, OD-H, OD-RH, OJ, OJ-H, OZ-H, and OJ-RH are registered trademarks of DAICEL Corporation. All such trademarks are used by Chiral Technologies under license from DAICEL Corporation. Chiral Technologies, Inc. is a subsidiary of DAICEL Corporation. Kailrez is a registered trademark of Dupont Polymers, Inc. Teflon is a registered trademark of The Chemours Company FC, LLC.

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.

FOR RESEARCH USE ONLY. Not for use in clinical diagnostic procedures.

© 2023 Phenomenex, Inc. All rights reserved.