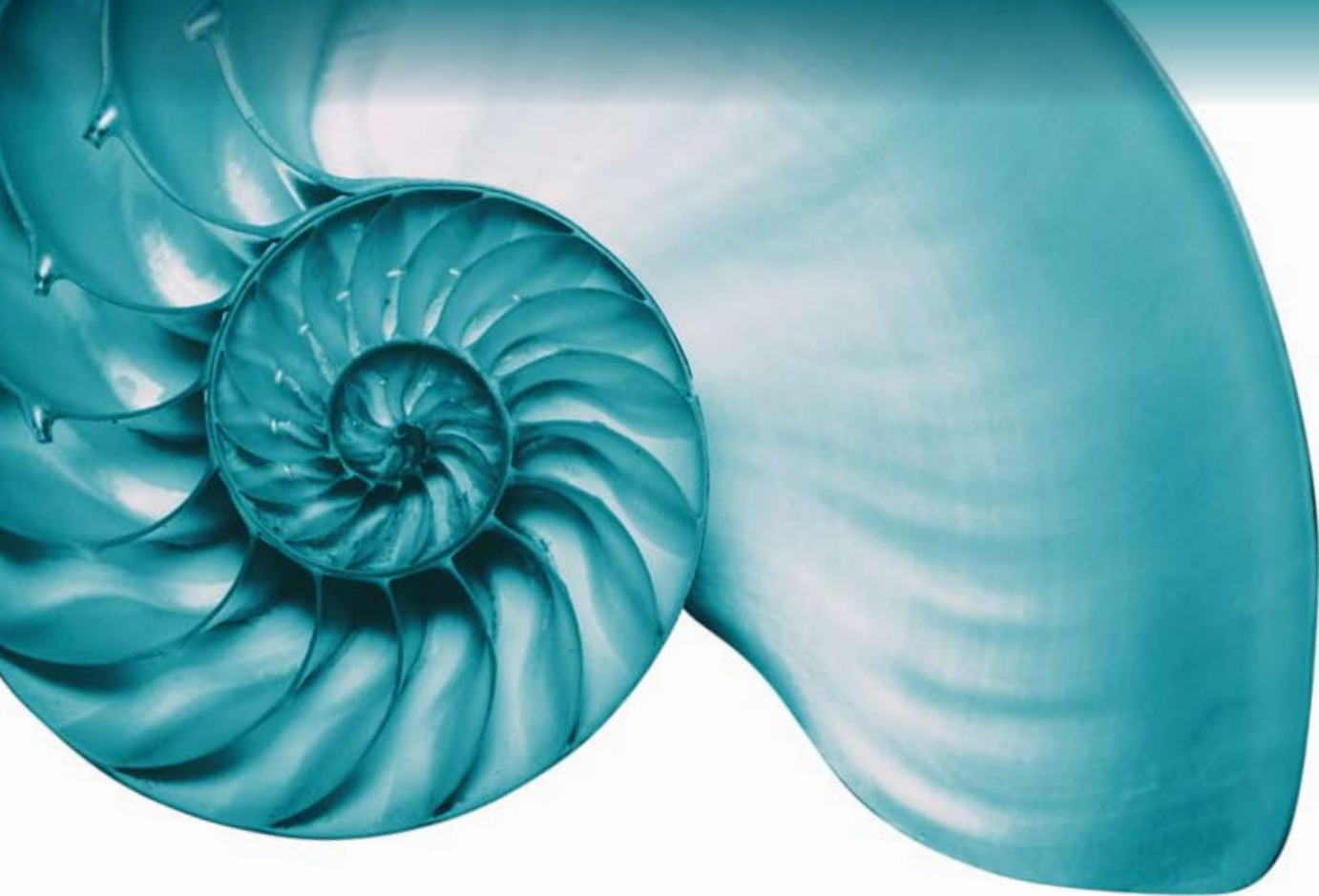


Lux Chiral Columns Make it Easy





Resolve **92** % of Your Enantiomers with Lux Polysaccharide Chiral Columns*

Lux columns offer a wide range of functionalized polysaccharide supports that provide enantioselectivity for even the most difficult chiral separations.

With five complementary and orthogonal chiral selectivities, free screening service, and exceptional in-house technical expertise, you are sure to find enantiomeric separation success in your lab.

Why choose Lux?

- Stable in normal phase, polar organic, SFC, and reversed phase conditions
- 3 μm and 5 μm packed columns and 20 μm bulk media for scale up
- Pressure stable up to 300 bar
- High efficiency and loading capacity

guarantee

If Lux analytical columns (≤ 4.6 mm ID) do not provide at least an equivalent or better separation as compared to a competing column of the same particle size, similar phase and dimensions, send in your comparative data within 45 days and keep the Lux column for FREE.

FREE Chiral Screening!

See page 4

*Based on 233 compounds screened on all five Lux phases

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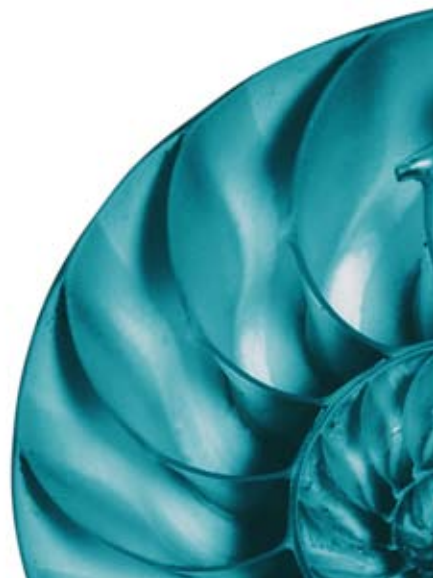


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Free Chiral Screening in HPLC and SFC

Have a sample and need a separation method? We can help!

Reliable methods and fast turnarounds are our specialty. Depending on compound type, we screen multiple chiral stationary phases under different conditions and return a detailed report of the recommended separation method so you can begin work right away.

Trust your sample in the hands of our chiral experts and free up your time for other projects!



We provide the following services:



FREE

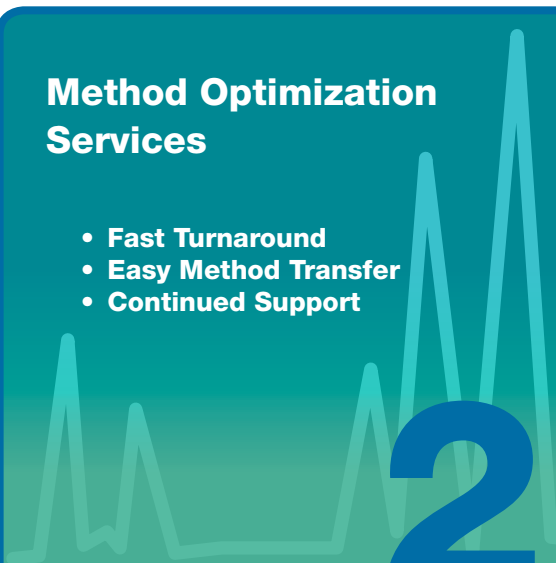
Chiral Screening

- Normal Phase
- Reversed Phase
- Polar Organic
- SFC

1

Method Optimization Services

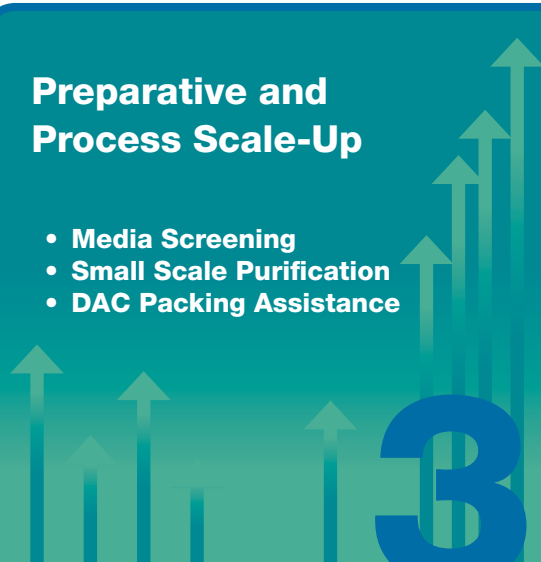
- Fast Turnaround
- Easy Method Transfer
- Continued Support



2

Preparative and Process Scale-Up

- Media Screening
- Small Scale Purification
- DAC Packing Assistance



3

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

or email us at phenologix@phenomenex.com

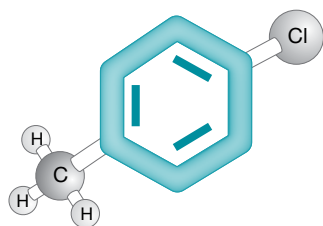
You can also visit us online: www.phenomenex.com/phenologix



Your Method. Our Scientists.

Five Distinct Polysaccharide Phases to Choose From

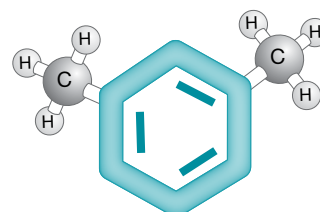
Lux chiral columns are made with inert, high pressure stable silica, then undergo a specialized coating and packing process that ensures high efficiencies and creates essential enantio-recognition abilities.



Amylose-O-CONH

Lux Amylose-2

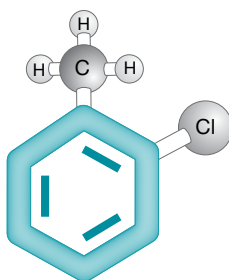
Amylose tris(5-chloro-2-methylphenylcarbamate)



Cellulose-O-CONH

Lux Cellulose-1

Cellulose tris(3,5-dimethylphenylcarbamate)



Cellulose-O-CONH

Lux Cellulose-2

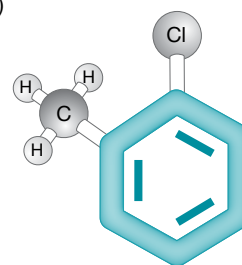
Cellulose tris(3-chloro-4-methylphenylcarbamate)



Cellulose-O

Lux Cellulose-3

Cellulose tris(4-methylbenzoate)



Cellulose-O-CONH

Lux Cellulose-4

Cellulose tris(4-chloro-3-methylphenylcarbamate)

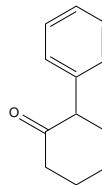
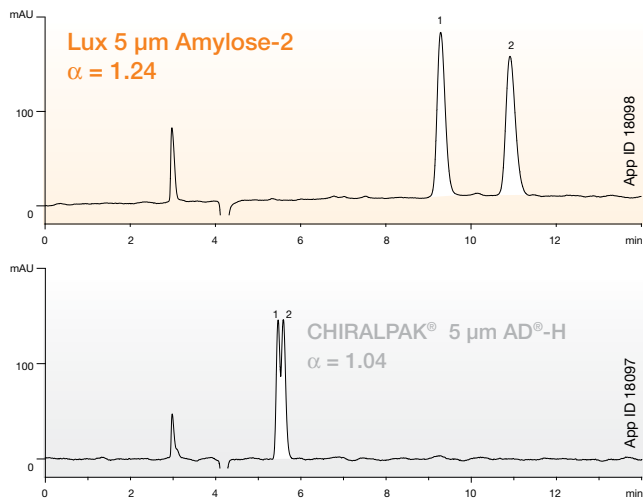


If Lux analytical columns (≤ 4.6 mm ID) do not provide at least an equivalent or better separation as compared to a competing column of the same particle size, similar phase and dimensions, send in your comparative data within 45 days and keep the Lux column for FREE.

Lux[®] Amylose-2 amylose tris(5-chloro-2-methylphenylcarbamate)

Separate more using the unique selectivity of Lux Amylose-2

2-Phenylcyclohexanone



Conditions for both columns:

Dimensions: 250 x 4.6 mm
Mobile Phase: 0.1 % Diethylamine in Hexane /
 0.1 % Diethylamine in Isopropanol (90:10)
Flow Rate: 1 mL/min
Detection: UV @ 220 nm
Temperature: Ambient

TRIVIA

Q.
A.

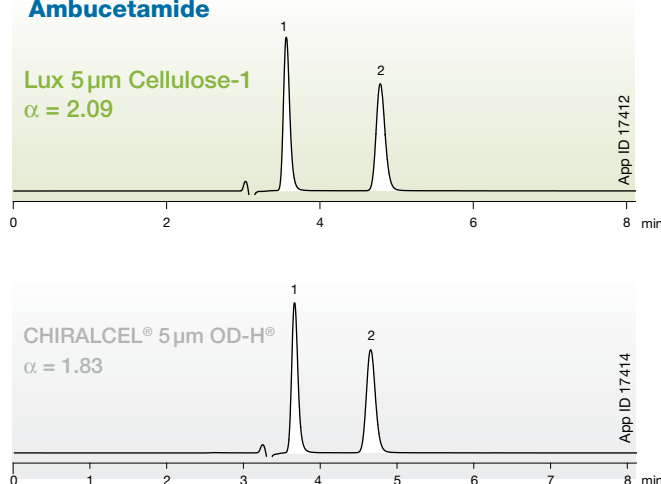
What's the difference between Amylose and Cellulose backbones?

While both form helical structures that are maintained in coating, the amylose can be described as more tightly coiled. The looser cellulose helical structure may more readily accommodate enantiomer interaction.

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

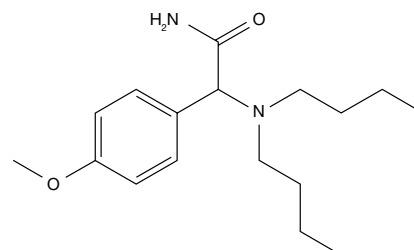
Guaranteed alternative to CHIRALCEL[®] OD-H[®]. Expect equivalent or BETTER performance.

Ambucetamide



Conditions for both columns:

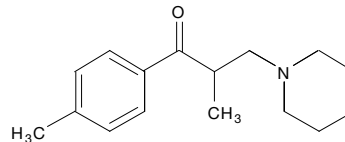
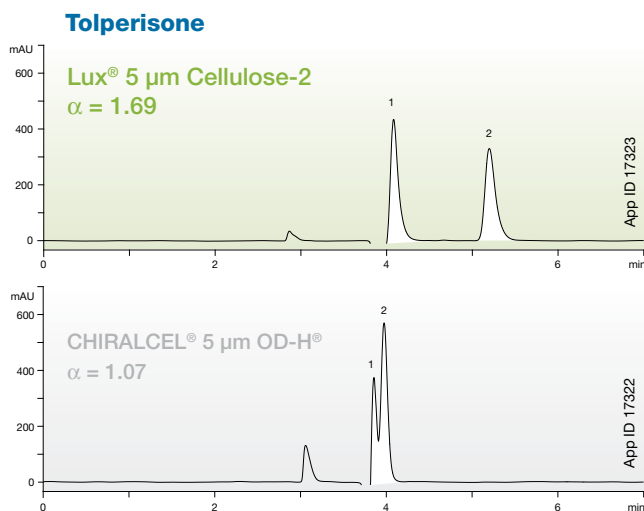
Dimensions: 250 x 4.6 mm
Mobile Phase: 0.1 % Diethylamine in Methanol /
 0.1 % Diethylamine in Isopropanol (90:10)
Flow Rate: 1 mL/min
Detection: UV @ 220 nm
Temperature: Ambient



Comparative separations may not be representative of all applications.

Lux[®] Cellulose-2 cellulose tris(3-chloro-4-methylphenylcarbamate)

Chlorinated cellulose offers distinct enantioselective advantages



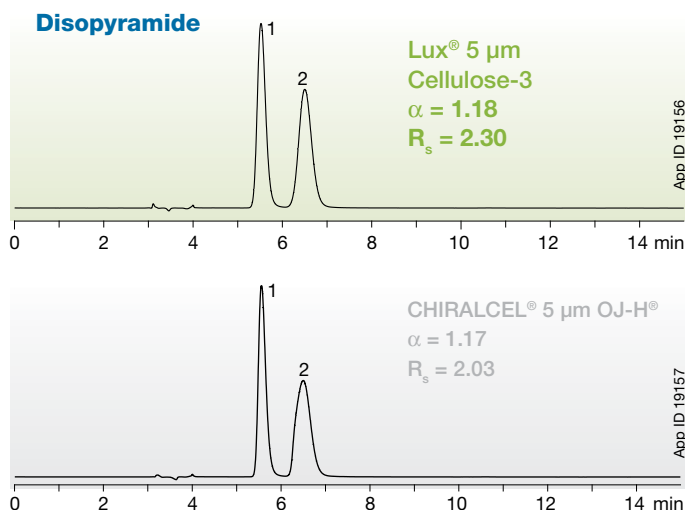
Conditions for both columns:
Dimensions: 250 x 4.6 mm
Mobile Phase: 0.1 % Diethylamine in Hexane /
 0.1 % Diethylamine in Isopropanol (90:10)
Flow Rate: 1 mL/min
Detection: UV @ 220 nm
Temperature: Ambient

Q. What is the benefit to halogenating the chiral stationary phase?

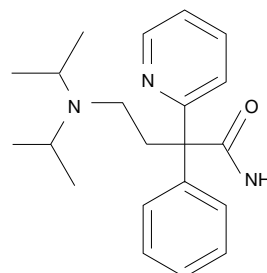
A. Halogens, such as chlorine atoms, have strong electronegativity that can polarize racemic mixtures and preferentially interact with one enantiomer over another.

Lux Cellulose-3 cellulose tris(4-methylbenzoate)

Enhanced enantioselective properties provide higher resolution values and better performance for your separations.



Conditions for both columns:
Dimensions: 250 x 4.6 mm
Mobile Phase: 0.1 % Diethylamine in Hexane /
 0.1 % Diethylamine in Ethanol (90:10)
Flow Rate: 1 mL/min
Detection: UV @ 220 nm
Temperature: Ambient

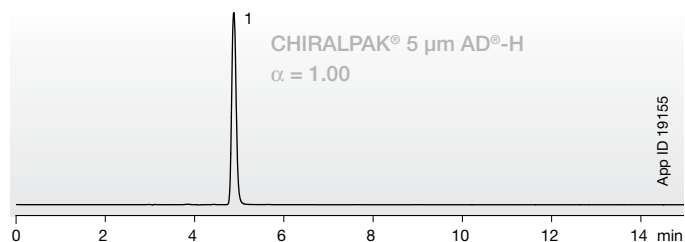
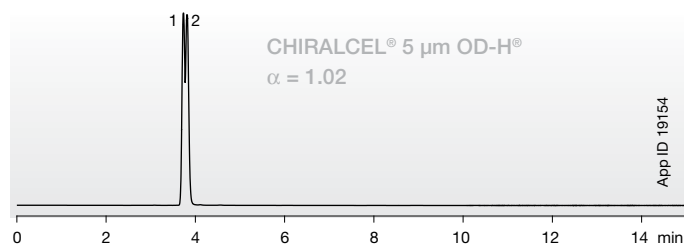
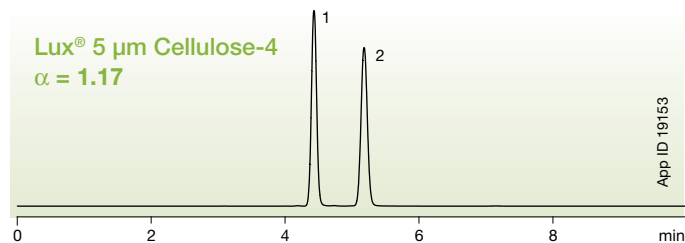


Comparative separations may not be representative of all applications.

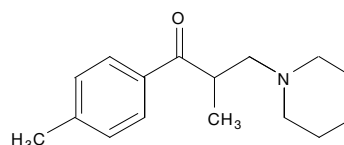
Lux[®] Cellulose-4 cellulose tris(4-chloro-3-methylphenylcarbamate)

Innovative chiral selector will succeed where others fail.

Tolperisone



Conditions for all columns:
Dimensions: 250 x 4.6 mm
Mobile Phase: 0.1 % Diethylamine in Hexane /
 0.1 % Diethylamine in Isopropanol (90:10)
Flow Rate: 1 mL/min
Detection: UV @ 220 nm
Temperature: Ambient



- Q.** How can I maintain high efficiency during scale up from analysis to purification?
- A.** Using AXIA™ packed preparative columns gives you up to 30% higher efficiencies than traditional slurry packed columns.
 Find out more: www.phenomenex.com/axia



guarantee

If Lux analytical columns (≤ 4.6 mm ID) do not provide at least an equivalent or better separation as compared to a competing column of the same particle size, similar phase and dimensions, send in your comparative data within 45 days and keep the Lux column for FREE.

Comparative separations may not be representative of all applications.

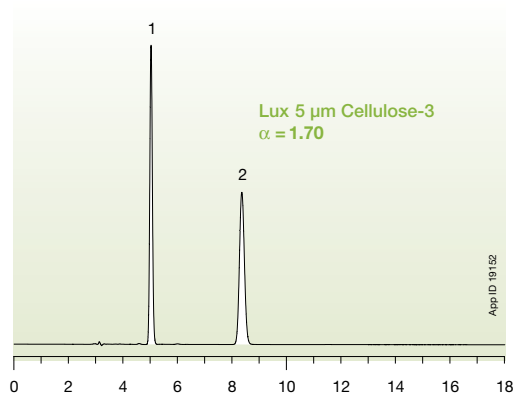
Phenomenex | WEB: www.phenomenex.com

Column Screening for Optimal Chiral Resolution

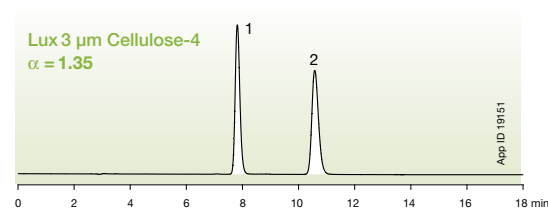
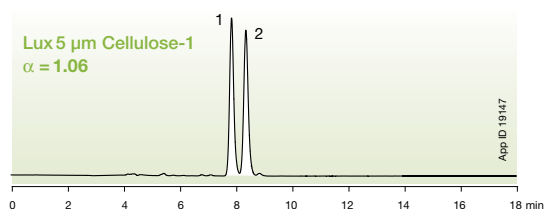
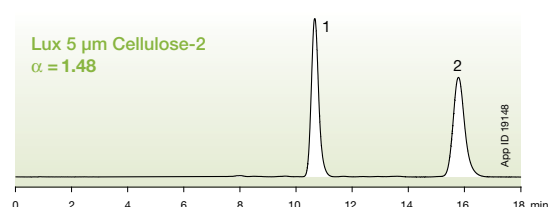
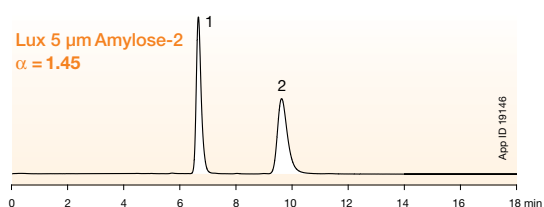
Utilizing differences in selectivity in each of the five Lux columns can help develop methods more efficiently by offering broad and complementary chiral recognition abilities.

In the example below, a simple screen determined which column gave the best separation.

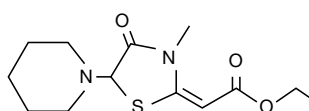
Etozolin Optimal Resolution



Based on a five phase screen under reversed phase conditions, the optimal chiral stationary phase for resolving Etozolin is Lux Cellulose-3.



Conditions for all columns:
 Column: As noted
 Dimension: 250 x 4.6 mm
 Mobile Phase: Acetonitrile /
 20 mM Ammonium
 bicarbonate with 0.1% Diethylamine (60:40)
 Flow Rate: 1 mL/min
 Temperature: Ambient
 Detection: UV @ 220 nm



Comparative separations may not be representative of all applications.

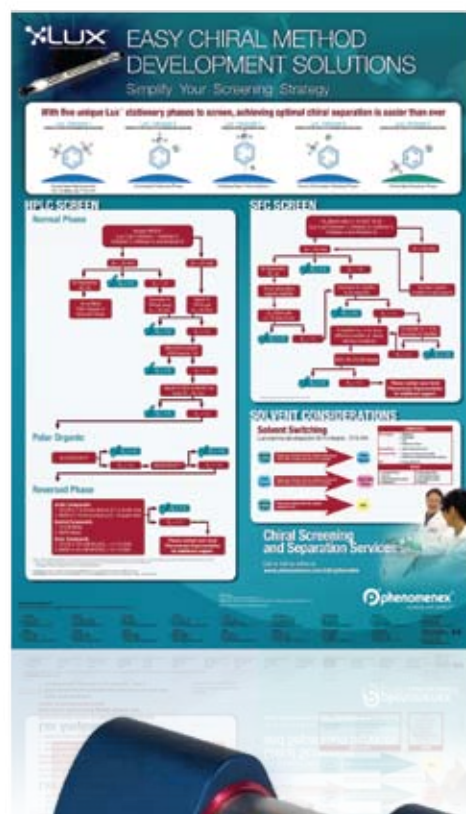
Sample Strategies for HPLC and SFC Method Development

With five unique and complementary polysaccharide phases for screening, chiral method development just got easier. The more phases you have available to screen, the greater the chance of achieving optimal chiral resolution.

To get you started, we have outlined a simple strategy for screening CSPs under HPLC and SFC conditions in our chiral method development solutions poster.

Call or go online today to request a chiral method development solutions poster at

www.phenomenex.com/Lux



Lux® Ordering Information

3 µm Analytical Columns (mm)

Phases	3 µm Analytical Columns (mm)						SecurityGuard™ Cartridges (mm)	
	50 x 2.0	150 x 2.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
	\$	\$	\$	\$	\$	\$	\$/10pk	\$/10pk
Cellulose-1	00B-4458-BO	00F-4458-BO	00B-4458-EO	00D-4458-EO	00F-4458-EO	00G-4458-EO	AJO-8402	AJO-8403
Cellulose-2	00B-4456-BO	00F-4456-BO	00B-4456-EO	00D-4456-EO	00F-4456-EO	00G-4456-EO	AJO-8398	AJO-8366
Cellulose-3	00B-4492-BO	00F-4492-BO	00B-4492-EO	00D-4492-EO	00F-4492-EO	00G-4492-EO	AJO-8621	AJO-8622
Cellulose-4	00B-4490-BO	00F-4490-BO	00B-4490-EO	00D-4490-EO	00F-4490-EO	00G-4490-EO	AJO-8626	AJO-8627
Amylose-2	00B-4471-BO	00F-4471-BO	00B-4471-EO	00D-4471-EO	00F-4471-EO	00G-4471-EO	AJO-8471	AJO-8470

for ID: 2.0–3.0 mm 3.2–8.0 mm

5 µm Analytical Columns (mm)

Phases	5 µm Analytical Columns (mm)					SecurityGuard™ Cartridges (mm)	
	50 x 2.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
	\$	\$	\$	\$	\$	\$/10pk	\$/10pk
Cellulose-1	00B-4459-BO	00B-4459-EO	00D-4459-EO	00F-4459-EO	00G-4459-EO	AJO-8402	AJO-8403
Cellulose-2	00B-4457-BO	00B-4457-EO	00D-4457-EO	00F-4457-EO	00G-4457-EO	AJO-8398	AJO-8366
Cellulose-3	00B-4493-BO	00B-4493-EO	00D-4493-EO	00F-4493-EO	00G-4493-EO	AJO-8621	AJO-8622
Cellulose-4	00B-4491-BO	00B-4491-EO	00D-4491-EO	00F-4491-EO	00G-4491-EO	AJO-8626	AJO-8627
Amylose-2	00B-4472-BO	00B-4472-EO	00D-4472-EO	00F-4472-EO	00G-4472-EO	AJO-8471	AJO-8470

for ID: 2.0–3.0 mm 3.2–8.0 mm

5 µm Semi-Prep Columns (mm)

Phases	SecurityGuard™ Cartridges (mm)		
	150 x 10.0	250 x 10.0	10 x 10.0†
	\$	\$	\$/3pk
Cellulose-1	00F-4459-NO	00G-4459-NO	AJO-8404
Cellulose-2	00F-4457-NO	00G-4457-NO	AJO-8399
Cellulose-3	00F-4493-NO	00G-4493-NO	AJO-8623
Cellulose-4	00F-4491-NO	00G-4491-NO	AJO-8628
Amylose-2	00F-4472-NO	00G-4472-NO	AJO-8472

for ID: 9–16 mm

20 µm Bulk Media

Phases	100 g	1 kg
	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
Amylose-2	Δ	Δ

ΔPlease inquire for 20 µm Lux® Amylose-2, media.

5 µm Axia™ Packed Preparative Columns (mm)

Phases	5 µm Axia™ Packed Preparative Columns (mm)				SecurityGuard™ Cartridges (mm)	
	150 x 21.2	250 x 21.2	250 x 30	250 x 50	15 x 21.2**	15 x 30.0*
	Inquire	Inquire	Inquire	Inquire	\$/ea	\$/ea
Cellulose-1	00F-4459-PO-AX	00G-4459-PO-AX	00G-4459-UO-AX	00G-4459-VO-AX	AJO-8405	AJO-8406
Cellulose-2	00F-4457-PO-AX	00G-4457-PO-AX	00G-4457-UO-AX	00G-4457-VO-AX	AJO-8400	AJO-8401
Cellulose-3	00F-4493-PO-AX	00G-4493-PO-AX	00G-4493-UO-AX	00G-4493-VO-AX	AJO-8624	AJO-8625
Cellulose-4	00F-4491-PO-AX	00G-4491-PO-AX	00G-4491-UO-AX	00G-4491-VO-AX	AJO-8629	AJO-8630
Amylose-2	00F-4472-PO-AX	00G-4472-PO-AX	00G-4472-UO-AX	00G-4472-VO-AX	AJO-8473	AJO-8474

for ID: 18–29 mm 30–49 mm

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

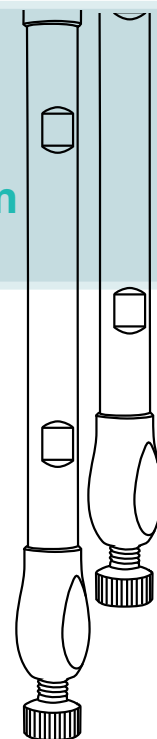
†SemiPrep SecurityGuard Cartridges require holder, Part No. : AJO-7220

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

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

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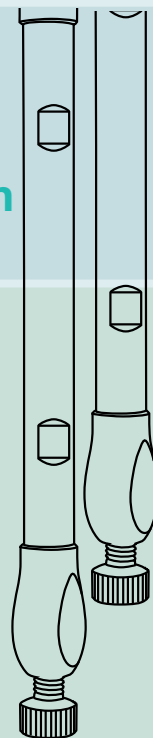


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Disclaimer

Comparative separations may not be representative of all applications. Columns used for comparison were manufactured by DAICEL Chemical Industries, Ltd.

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