

SecurityGuard™ UHPLC / HPLC / PREP Column Protection

 **phenomenex**[®]
...breaking with traditionSM



Less frequent UHPLC / HPLC / PREP column replacement

Save Time and Money

It's a fact! Chemical contaminants and particulates are a natural part of any chromatographic analysis.

The easiest way to extend column performance is to remove these contaminants and particulates with the SecurityGuard™ Cartridge System before they reach your column and degrade your chromatography.

SecurityGuard:

- Protects and extends UHPLC, HPLC and PREP column lifetime
- Virtually no change in chromatography
- Simple to use

Scanning electron microscopy of column inlet frit

(24000 times magnification)

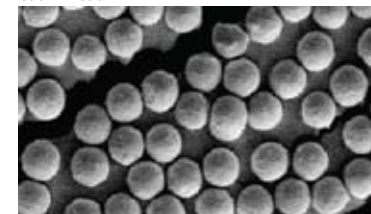
With SecurityGuard



Inlet Frit



Column Media



Without SecurityGuard



Inlet Frit



Column Media



Contaminant and particle
buildup




UHPLC / HPLC / PREP

Choose Your Column Protection

No matter which type of column you're using, SecurityGuard™ offers the column protection you need

	UHPLC	SecurityGuard ULTRA All core-shell and/or $< 3 \mu\text{m}$ particle columns ($< 20,000 \text{ psi} / 1,378 \text{ bar}$)	4-9
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	HPLC	SecurityGuard All non core-shell and $\geq 3 \mu\text{m}$ particle columns ($< 3,500 \text{ psi} / 241 \text{ bar}$)	10-15
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	PREP	SecurityGuard PREP For Prep HPLC columns with 9.0 to 49.0 mm internal diameter (ID)	16-18
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Removes harmful contaminants and particulates Longer Column Lifetime



UHPLC Column Protection:

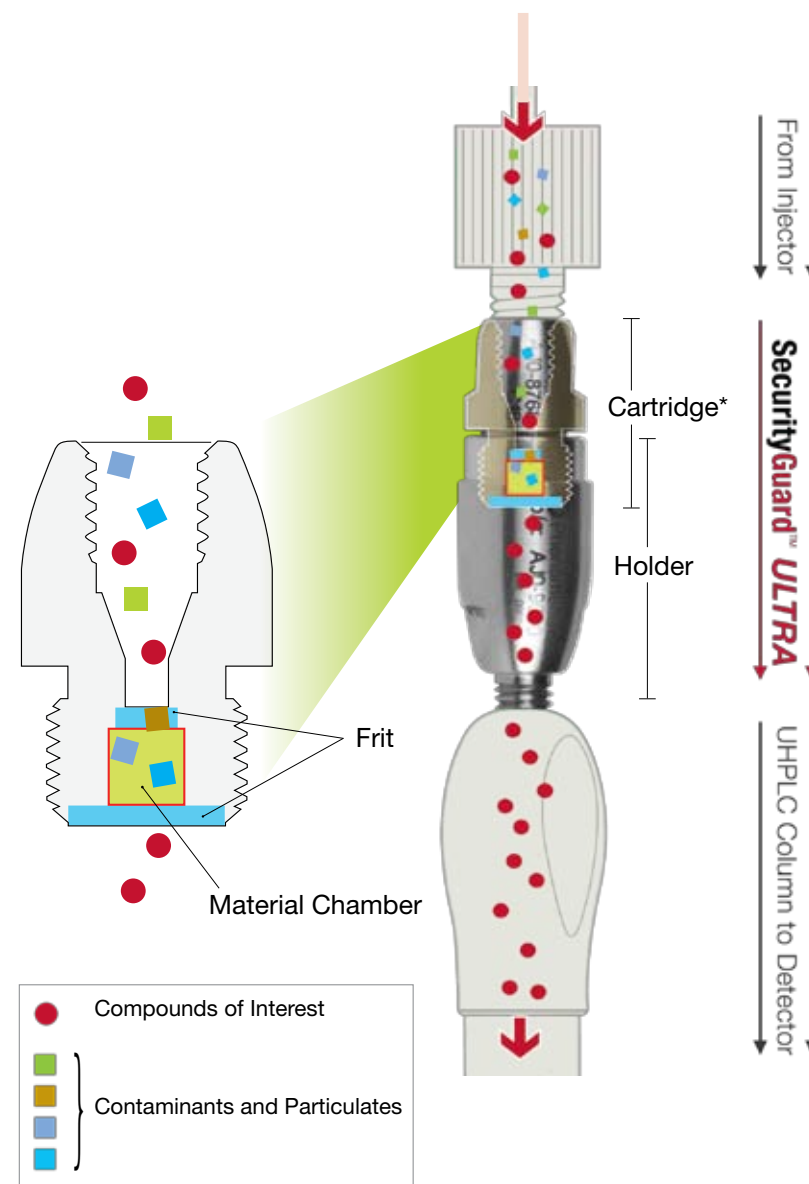
- Extends HPLC, core-shell, and sub-2 μm column lifetime
- Fits virtually all manufacturers' columns 2.1 to 4.6 mm ID
- Pressure rated to 20,000 psi (1,378 bar)
- Simple to use

The SecurityGuard ULTRA cartridge traps contaminants and particulates. Once the cartridge is exhausted, simply replace it instead of your expensive column investment.

The universal holder provides a leak-free connection to virtually any UHPLC column.

You will experience:

- Increased column lifetime
- Higher column performance
- More reproducible chromatography
- Fewer wasted columns



* Cartridge schematic not drawn to scale

2012 R&D 100
Award Recipient



Specifically for UHPLC columns and methods

Easy to Use, Innovative Design



The SecurityGuard ULTRA column protection system is designed to extend the lifetime of sub-2 μ m and core-shell columns, while maintaining the ultra-high performance results they generate.

- ① **Auto-adjusting Tip**
provides a leak-free connection to virtually any UHPLC column
- ② **Re-usable Holder**
minimizes costs and waste
- ③ **Disposable Cartridge**
for quick and easy removal and replacement
- ④ **Packed with Media**
for maximum column protection
- ⑤ **Conveniently Labeled**
to ensure guard-to-column phase compatibility

Pressure rated to 20,000 psi



2012 R&D 100
Award Recipient



Keeps UHPLC columns performing at their best One Easy Step



When contaminants and particulates build up at the head of the column or on the guard cartridges, system pressures dramatically increase.

By simply replacing the SecurityGuard ULTRA cartridge instead of your sub-2 μ m or core-shell UHPLC column you are able to regain normal operating conditions and reclaim original column performance.

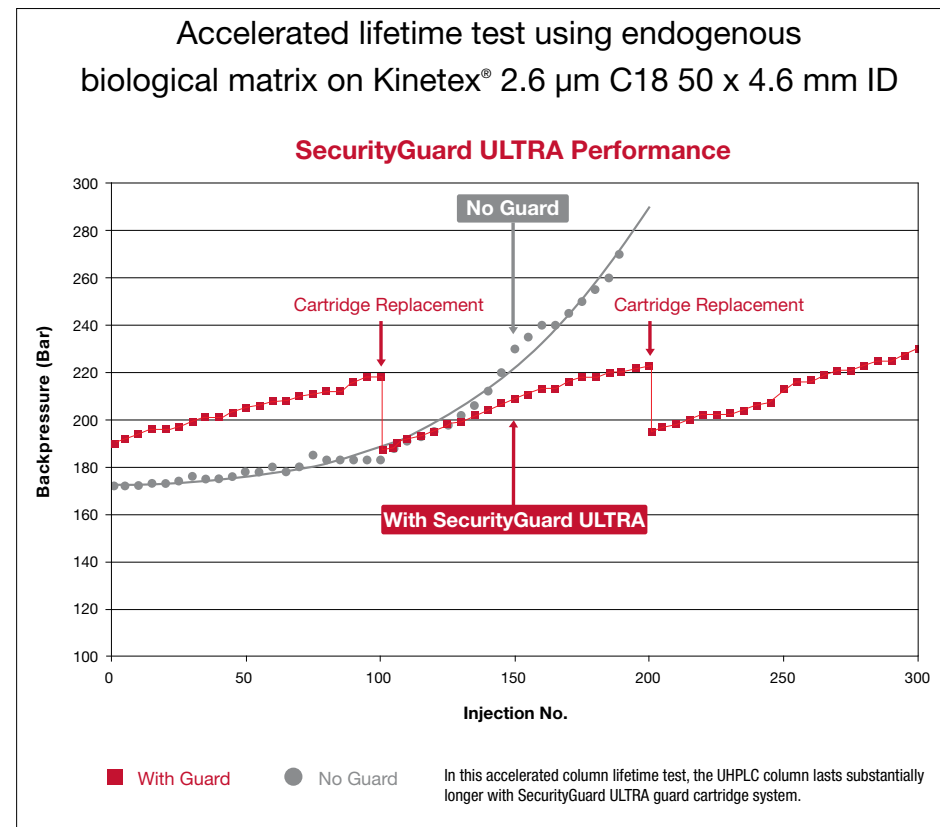
UHPLC

SecurityGuard ULTRA

6



Watch how easy it is to replace
your cartridge



2012 R&D 100
Award Recipient



Universal connector

Protect Any UHPLC Column



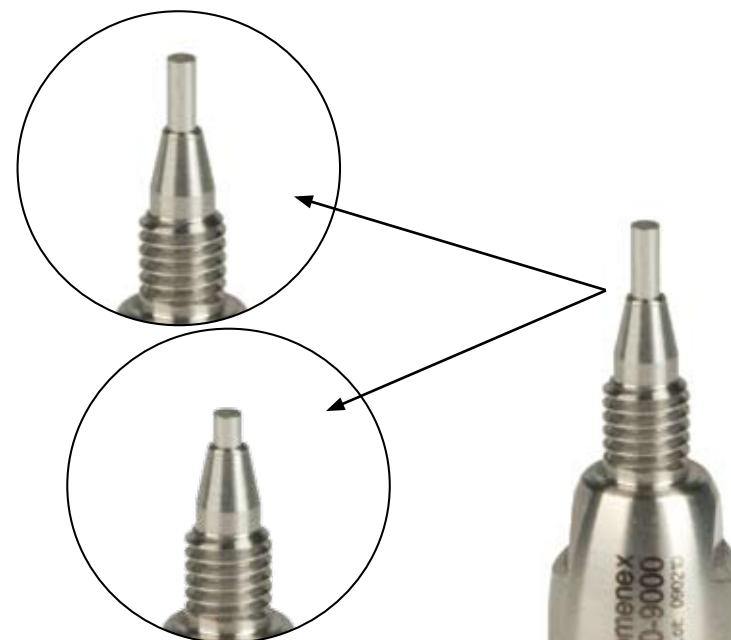
Installing the SecurityGuard ULTRA protection system into your favorite UHPLC column is straightforward and easy.

The floating outlet from the SecurityGuard ULTRA universal holder automatically adjusts to the precise depth of virtually every manufacturer's analytical UHPLC column. This ensures a low dead-volume, leak-free connection, without the use of unions or adapters, no matter which manufacturer's UHPLC column you are using.

Tip adjusts to fit any UHPLC column



Compatible UHPLC Fittings



2012 R&D 100
Award Recipient



Virtually no change in chromatography

Maintain UHPLC Performance!



SecurityGuard ULTRA maintains UHPLC column performance without altering your chromatographic results. The extremely low dead-volume (<math><0.3 \mu\text{L}</math>) of this unique guard design minimizes sample peak dispersion ensuring that ultra-high efficiency chromatography is maintained.

	No Guard	SecurityGuard ULTRA	Competitor
Efficiency (p/m)	11,795	11,390	8,591
Symmetry	0.92	0.86	0.69
Selectivity	1.47	1.46	1.46
Backpressure (bar)	354	384	384

Values based on naphthalene peak.

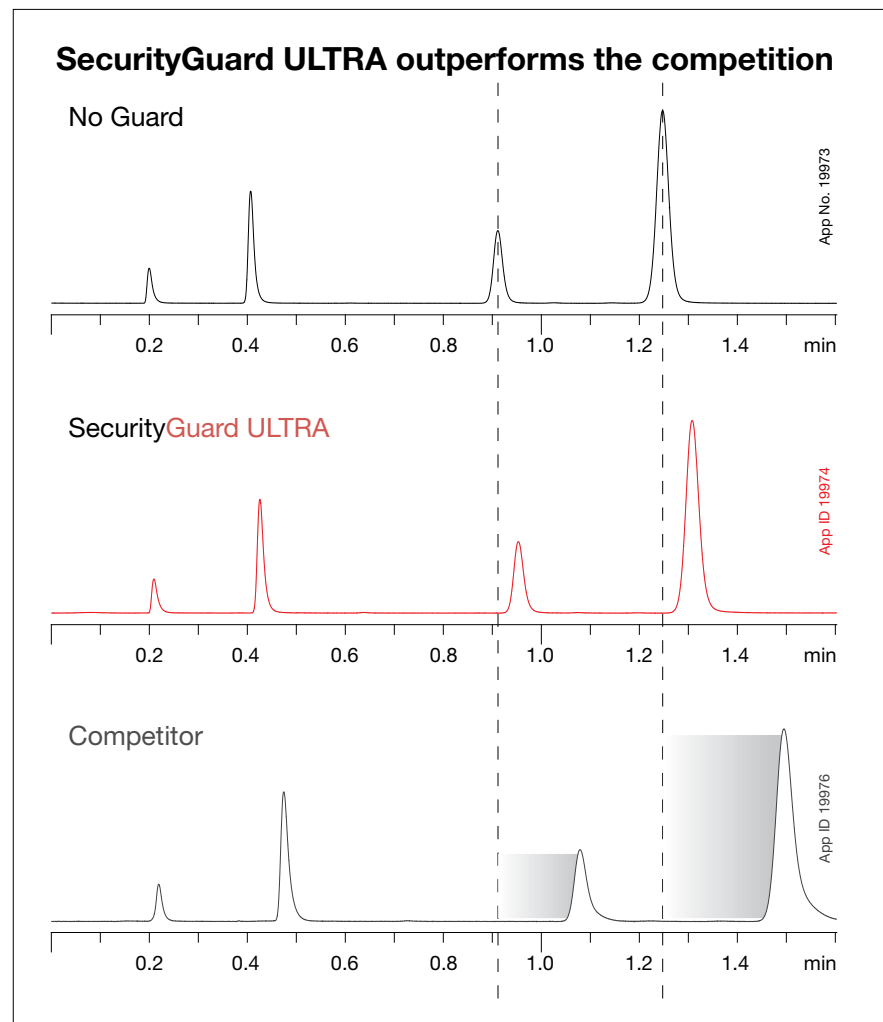
Conditions same for all applications:

Column: Kinetex® 1.7 μm XB-C18
Dimensions: 50 x 2.1 mm
Mobile Phase: Acetonitrile / Water (50:50)
Injection Volume: 1 μL
Flow Rate: 1 mL/min
Temperature: 22 °C

Detection: UV @ 270 nm
Sample: 1. Acetophenone
2. Benzene
3. Toluene
4. Naphthalene

Unlike competitors' UHPLC guard systems SecurityGuard ULTRA has virtually no effect on efficiency, retention time, or backpressure. This leads to longer column lifetime with no loss in column performance.

2012 R&D 100 Award Recipient



Comparative separations may not be representative of all applications.

SecurityGuard ULTRA

Ordering Information



SecurityGuard ULTRA Cartridges



Material	Description	pH Stability	Column ID (mm)		
			2.1	3.0	4.6
Cartridges for General Purpose/ Pharmaceutical					
			/3pk	/3pk	/3pk
C18	(ODS, Octadecyl)	1.5 – 8.5*	AJ0-8782	AJ0-8775	AJ0-8768
C8	(MOS, Octyl)	1.5 – 8.5*	AJ0-8784	AJ0-8777	AJ0-8770
PFP	(Pentafluorophenyl)	1.5 - 8.5*	AJ0-8787	AJ0-8780	AJ0-8773
HILIC	HILIC	2.0 - 7.5	AJ0-8786	AJ0-8779	AJ0-8772
Phenyl	(Phenylhexyl)	1.5 – 8.5*	AJ0-8788	AJ0-8781	AJ0-8774
Cartridges for Protein and Peptide Reversed Phase					
Widepore C18	(ODS, Octadecyl)	1.5 – 8.5*	AJ0-8783	–	AJ0-8769
Widepore C8	(MOS, Octyl)	1.5 – 8.5*	AJ0-8785	–	AJ0-8771
Widepore C4	(Butyl)	1.5 – 8.5*	AJ0-8899	–	AJ0-8901
Peptide C18	(ODS, Octadecyl)	1.5 – 8.5*	AJ0-8948	–	AJ0-8946

*pH stable 1.5 - 8.5 under gradient conditions. pH stable 1.5 - 10 under isocratic conditions.

SecurityGuard ULTRA Holder



Part No.	Description	Unit	Price
AJ0-9000	SecurityGuard ULTRA Cartridge Holder	ea	

AJ0-9000 is the universal holder designed for use with 2.1 mm, 3.0 mm and 4.6 mm ID cartridges.

Designed for all core-shell and/or < 3 µm particle columns (< 20,000 psi / 1,378 bar)

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If SecurityGuard ULTRA cartridge protection system does not perform as well or better than your current guard cartridge system of similar phase and dimensions, send in your comparative data within 45 days and keep the SecurityGuard ULTRA for FREE.



See it in action:

www.phenomenex.com/SecurityGuardULTRA



HPLC column protection SecurityGuard



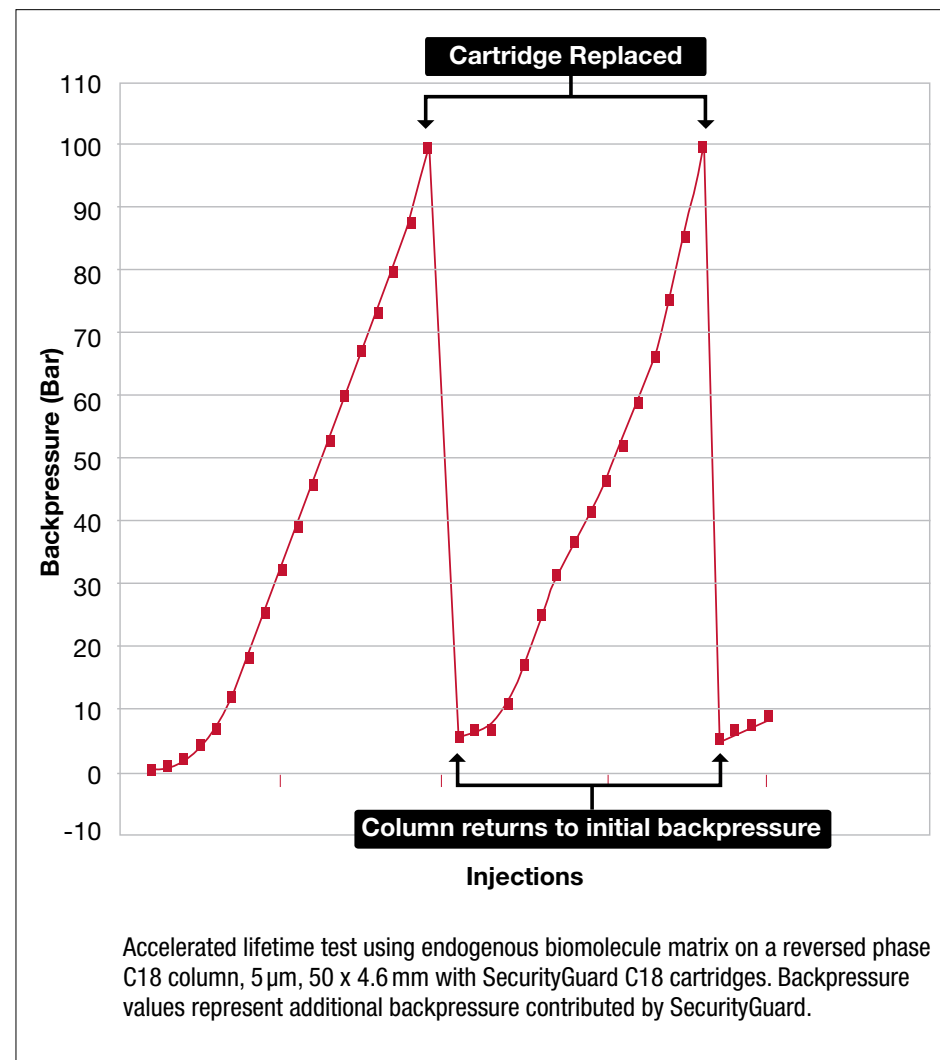
- Extends HPLC column lifetime
- Won't alter chromatography
- Compatible with virtually all HPLC columns
- Easy to determine when to change cartridge
- Easy to use

Increases HPLC Column Lifetime, Guaranteed!

Simply replace SecurityGuard cartridges instead of your expensive HPLC columns. In this graph, once the expired SecurityGuard cartridge was replaced, the pressure immediately dropped and the column performance was restored allowing for extended column use.



Fingertight connection to virtually any female inverted endfitting worldwide

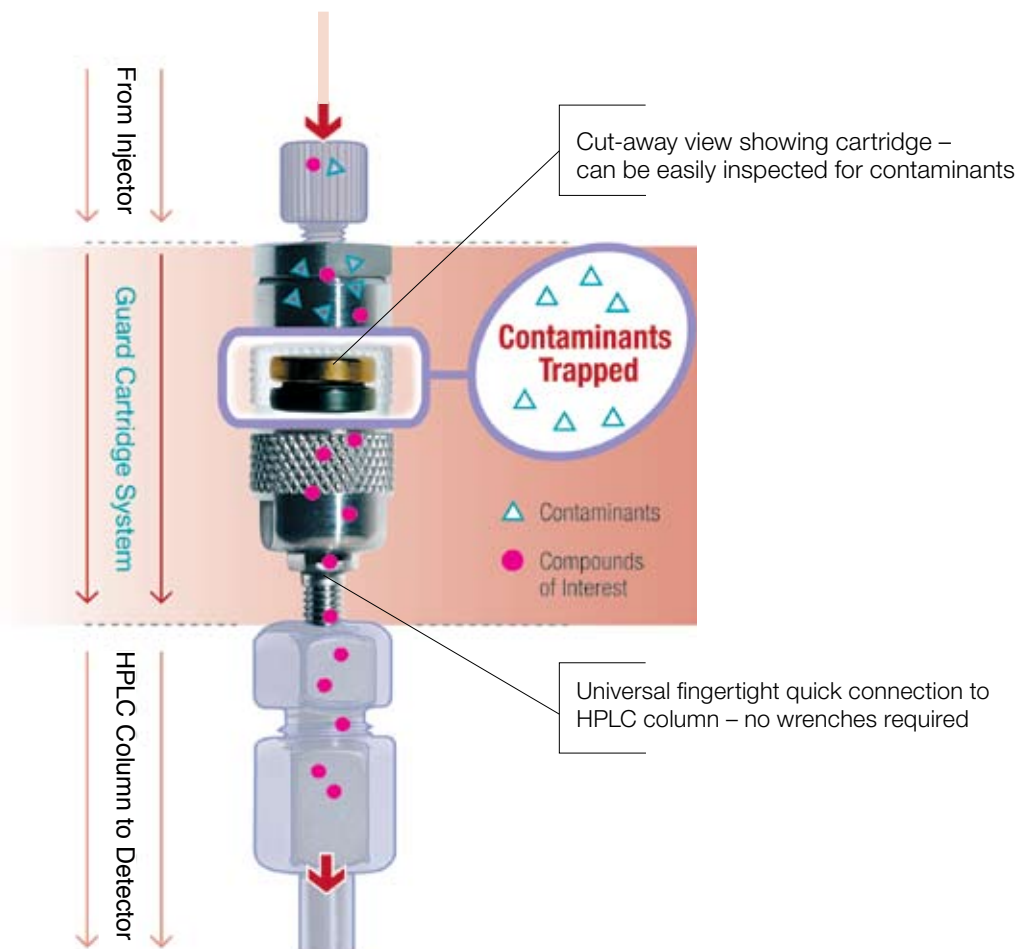


Protect your columns from contaminants

How Does It Work?

The SecurityGuard analytical cartridge holder (patented) directly fingertightens into virtually any manufacturer's column with a female/inverted endfitting. Contaminants are retained by an inexpensive disposable cartridge instead of damaging your valuable HPLC column investment.

"We used to have to change out our columns every 2 to 3 months and ever since we started using the SecurityGuard cartridges we can do at least 6 months before changing a column out." T. Serviss



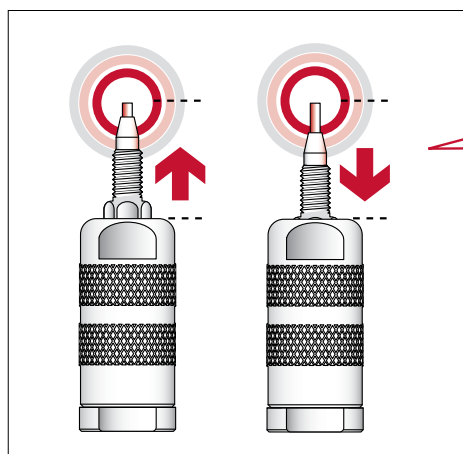
Will It Work With My HPLC Column?

SecurityGuard is a universal direct-connect holder.

The floating outlet of the analytical SecurityGuard holder fits virtually ANY manufacturer's column endfitting, making it a truly universal guard system.



See it in action:
www.phenomenex.com/SecurityGuardInstallation



The floating outlet automatically adjusts to the precise port depth of virtually any analytical HPLC column. This ensures a low-dead volume, leak-free connection, without the use of unions or adapters.

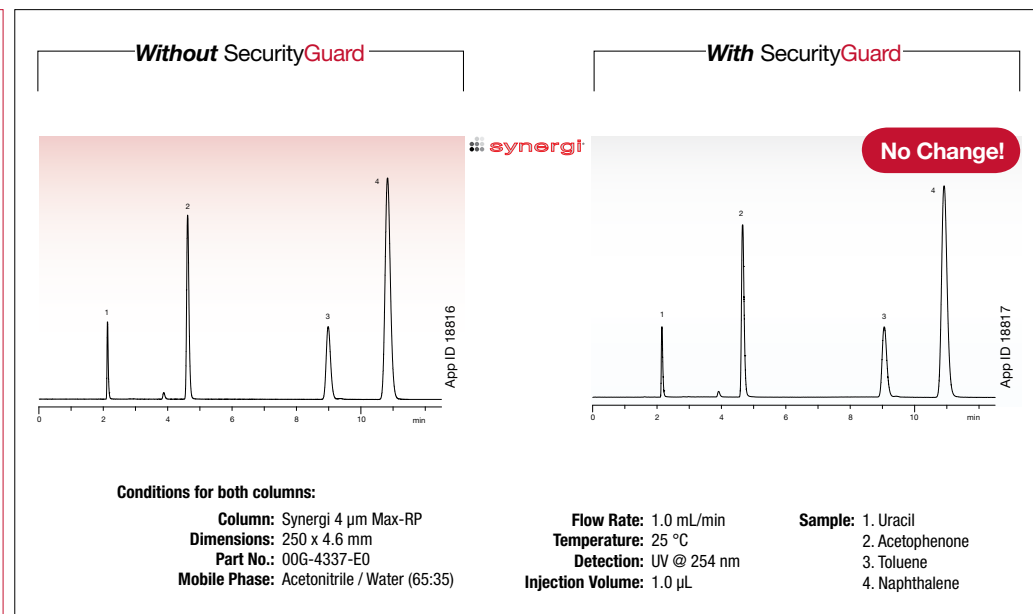
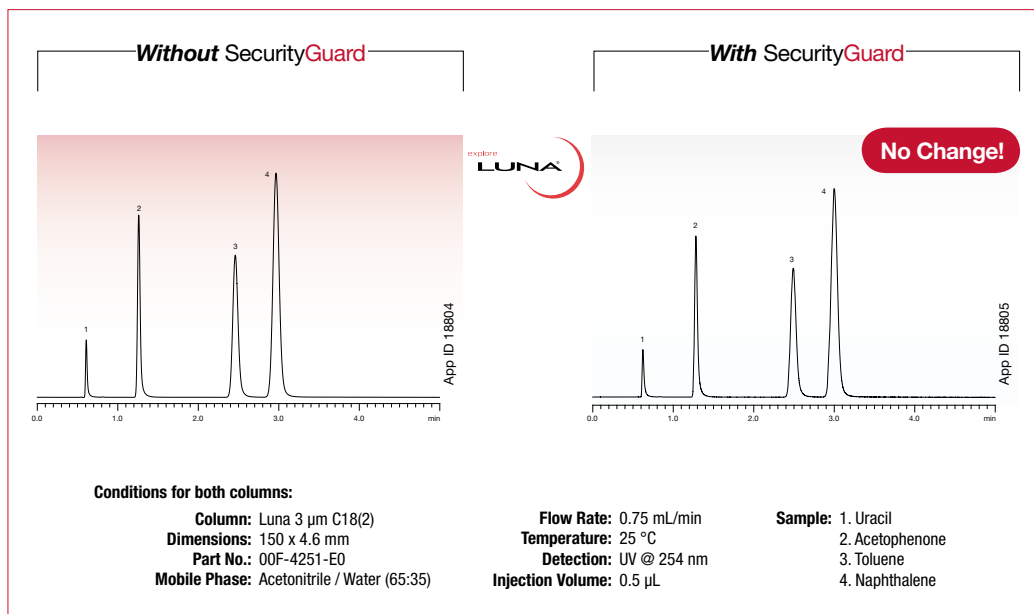
Fits virtually all your HPLC columns!

- | | | | |
|--------------|--------------|------------------|------------------|
| Gemini®-NX | LiChrosorb® | Symmetry® | PolymerX™ |
| Jupiter® | Prodigy™ | Rezex™ | SynChropak® |
| Luna® | Gemini® | Nucleosil® | Sugar-Pak™ |
| SphereClone™ | Vydac® | Synergi™ | Aminex® |
| BioSep™ | ZORBAX® | Partisil® | Kromasil® |
| HYPERSIL® | SunFire™ | XTerra® | and many more... |
| Spherisorb® | Ultrasphere® | Develosil® | |
| Inertsil® | Bondclone™ | PartiSphere® | |
| Lux® | XBridge™ | Bio-Sil® | |
| LiChrospher® | Capcell Pak® | CHIRALCEL® OD-H® | |



Will It Alter My Chromatography?

SecurityGuard will protect your valuable HPLC columns, without altering your chromatographic results. The short 4 mm analytical cartridges have virtually no effect on efficiency, retention time, or backpressure.



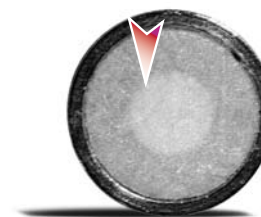
“We didn’t see any change in peaks. SecurityGuard has increased the life of the column.” B. Dietz

When Do I Replace My Cartridges?

The “see your dirt” feature lets you know exactly when it’s time to replace your cartridge.

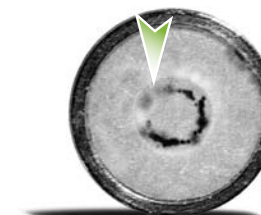
Visually inspect the surface of the cartridge’s packing material any time, without disturbing the packing bed. Now you can easily monitor visual contaminant build-up, and change your guard cartridge before it’s too late!

If your contaminants are colorless, replace the cartridge as often as needed to maintain chromatographic performance.



Clean

If it looks clean, the cartridge may be reinserted for further use.

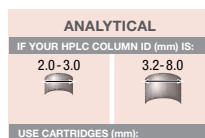


Dirty

If either discoloration or particle build-up is observed, it’s time to replace the cartridge.

“When replacing a cartridge it is visibly obvious that the extraneous material is captured by the cartridge and prevents contamination of the analytical column...” F. Shakir


SecurityGuard Ordering Information



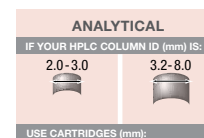
Material	Description	pH Stability	4.0 x 2.0	4.0 x 3.0
Cartridges for General Purpose/Pharmaceutical				
C18	(ODS, Octadecyl)	1.5 - 10	AJO-4286	AJO-4287
C12	(Dodecyl)	1.5 - 10	AJO-6073	AJO-6074
C8	(MOS, Octyl)	1.5 - 10	AJO-4289	AJO-4290
C5	(Pentyl)	1.5 - 10	AJO-4292	AJO-4293
C1	(TMS)	2 - 9	AJO-4298	AJO-4299
Silica	—	—	AJO-4347	AJO-4348
HILIC	HILIC	1.5 - 8	AJO-8328	AJO-8329
NH₂	(Amino, Aminopropyl)	1.5 - 11	AJO-4301	AJO-4302
CN	(Cyano, Cyanopropyl)	2 - 7.5	AJO-4304	AJO-4305
Phenyl	(Phenylhexyl)	1.5 - 10	AJO-4350	AJO-4351
PFP(2)	(Pentafluorophenylpropyl)	1.5 - 8	AJO-8326	AJO-8327
SCX	(SA, Strong Cation Exchanger)	2.5 - 7.5	AJO-4307	AJO-4308
SAX	(SB, Strong Anion Exchanger)	2.5 - 7.5	AJO-4310	AJO-4311
RP-1	(Reversed Phase - Polymer)	0 - 14	AJO-5808	AJO-5809
Polar-RP	(Ether-linked Phenyl)	1.5 - 7	AJO-6075	AJO-6076
Fusion-RP	(C18 Polar Embedded)	1.5 - 10	AJO-7556	AJO-7557
AQ C18	(Polar Endcapped C18)	1.5 - 7.5	AJO-7510	AJO-7511
Gemini® NX	(C18 TWIN-NX™ Technology)	1 - 12	AJO-8367	AJO-8368
Gemini® C18	(C18 TWIN™ Technology)	1 - 12	AJO-7596	AJO-7597
Gemini® C6-Phenyl	(C6-Phenyl TWIN™ Technology)	1 - 12	AJO-7914	AJO-7915
Oligo-RP™	(C18 TWIN™ Technology)	1 - 12	AJO-8134	AJO-8135
Oligo-WAX™	(WA, Weak Anion Exchanger)	1.5 - 11	—	AJO-8324

Guard Cartridge Holders / kit

(reusable holders) KJO-4282




Designed for fully porous HPLC columns and not intended for use with Kinetex, Aeris or other sub-2 µm or core-shell columns. Pressure rated to 3500 psi (241 bar).



Material	Description	pH Stability	4.0 x 2.0	4.0 x 3.0
Cartridges for Protein and Polypeptide Reversed Phase				
<i>For use with silica columns for separation of proteins & peptides, such as Jupiter® (Phenomenex); Vydac® 218TP, 214TP (Alltech Associates, Inc.); SynChropak® 300 C18, C4 (Eprogen, Inc.); Nucleosil® 300 Å C18, C4 (Macherey-Nagel); HYPER-SIL® 300 Å (Thermo Hypersil-Keystone), and other widepore or 300 Å brands.</i>				
Widepore C18	(ODS, Octadecyl)	1.5 - 10	AJO-4320	AJO-4321
Widepore C5	(Pentyl)	1.5 - 10	AJO-4326	AJO-4327
Widepore C4	(Butyl)	1.5 - 10	AJO-4329	AJO-4330
Cartridges for Silica GFC				
<i>(Aqueous SEC) For use with silica GFC columns, such as BioSep® and Yarra™ (Phenomenex); ZORBAX® GF-Series (Agilent Technologies); Bio-Sil® (Bio-Rad).</i>				
GFC-2000	—	2 - 7.5	—	AJO-4487
GFC-3000	—	2 - 7.5	—	AJO-4488
GFC-4000	—	2 - 7.5	—	AJO-4489
Cartridges for Chiral /10 pk /10 pk				
<i>For use with chiral columns, such as Lux® Cellulose-1, -2, -3, -4 & Amylose-2 (Phenomenex); CHIRALCEL® OD-H® & CHIRALCEL® OJ-H®, & CHIRALPAK® AD®-H (DAICEL Chemical Industries Ltd.)</i>				
Lux® Cellulose-1	Cellulose tris(3,5-dimethylphenylcarbamate)	2 - 9	AJO-8402	AJO-8403
Lux® Cellulose-2	Cellulose tris(3-chloro-4-methylphenylcarbamate)	2 - 9	AJO-8398	AJO-8366
Lux® Cellulose-3	Cellulose tris(4-methylbenzoate)	2 - 9	AJO-8621	AJO-8622
Lux® Cellulose-4	Cellulose tris(4-chloro-3-methylphenylcarbamate)	2 - 9	AJO-8626	AJO-8627
Lux® Amylose-2	Amylose tris(5-chloro-2-methylphenylcarbamate)	2 - 9	AJO-8471	AJO-8470
Cartridges for Carbohydrate/Organic Acid /10 pk				
<i>For organic acid and carbohydrate analysis, such as Rezex™ (Phenomenex); Aminex® (Bio-Rad); Sugar-Pak™ (Waters).</i>				
Carbo-H*	—	1 - 8	—	AJO-4490
Carbo-Ag*	—	Neutral	—	AJO-4491
Carbo-Pb²⁺	—	Neutral	—	AJO-4492
Carbo-Ca²⁺	—	Neutral	—	AJO-4493

Guard Cartridge Holders / kit

(reusable holders) KJO-4282



* For use with saccharide and oligosaccharide columns in Ag⁺ form.

guarantee

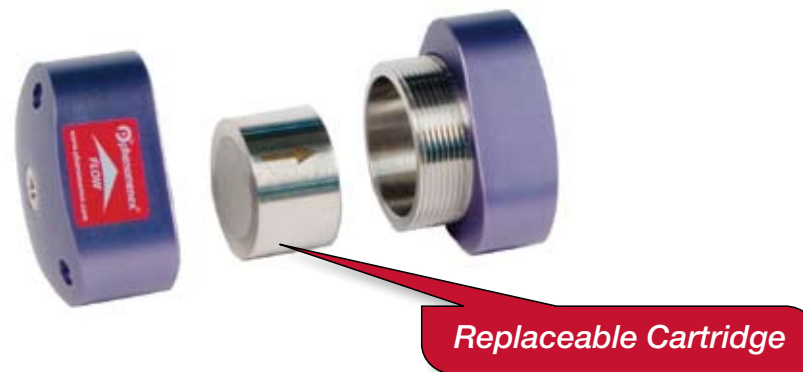
If you are not completely satisfied with the performance of SecurityGuard, simply contact Phenomenex within 45 days and keep SecurityGuard for FREE.

PREP HPLC Column Protection



- Extends prep column lifetime by as much as 5 times
- Protects column from samples that precipitate out of solution
- Protects column from contaminants
- Stable and leak-free up to 60 mL/min within specified pressure ratings

The SecurityGuard PREP system was designed to effectively and inexpensively protect your valuable prep columns from the damaging effects of mobile phase and sample chemical contaminants and particulates, without altering your chromatographic results.



SecurityGuard PREP



PREP HPLC Column

Lowering Your Cost Per Injection!



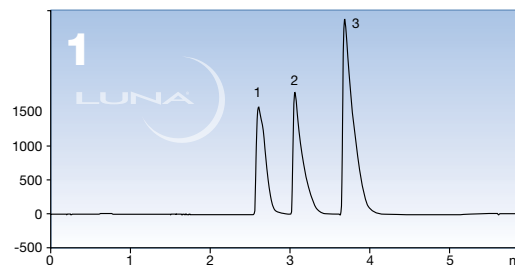
SecurityGuard isn't only about column protection, it's about lowering your cost per injection!

When you increase the number of injections from a single preparative column you're lowering your overall cost per injection.

With SecurityGuard PREP, the inexpensive cartridge was ruined while the integrity of the prep column was maintained and its performance restored.

Forced Degradation Study

Injection 1: Axia™ Packed column with SecurityGuard PREP cartridge

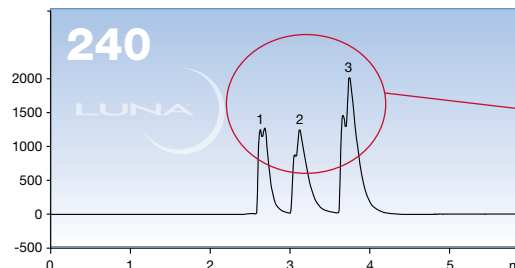


Conditions

- Column:** Luna® 10 µm C18(2) Axia Packed
- Dimension:** 50 x 21.2 mm
- Part No.:** 00B-4253-PO-AX
- Mobile Phase:** A: 0.1% TFA in Water
B: 0.1% TFA in Water / Acetonitrile (25:75)
- Gradient:** Linear 93:7 (A/B) to 100% B over 5 minutes
- Injection Volume:** 420 µL
- Flow Rate:** 60 mL/min
- Temperature:** Ambient
- Detection:** UV @ 270 nm
- Sample:** 1. Nadolol
2. Metoprolol
3. Propranolol



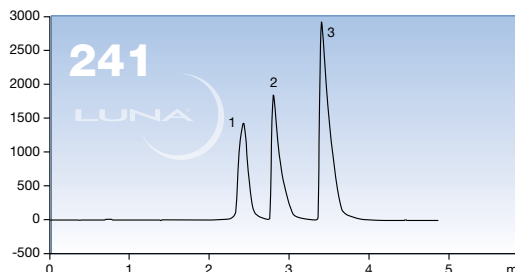
Injection 240: Axia Packed column with SecurityGuard PREP cartridge



Time to change the PREP cartridge



Injection 241: Axia Packed column after removing SecurityGuard column protection system



Original column performance maintained by using SecurityGuard PREP

SecurityGuard PREP

Ordering Information



SecurityGuard PREP

Material	Description	pH Stability	PREP		
			SEMI-PREP	PREP	
IF YOUR HPLC COLUMN ID (mm) IS:					
9.0-16.0					
18.0-29.0					
30.0-49.0					
USE CARTRIDGES (mm):					
			10.0 x 10.0	15.0 x 21.2	15.0 x 30.0
			/3 pk	/ea	/ea
Cartridges for General Purpose/Pharmaceutical					
C18	(ODS, Octadecyl)	1.5 - 10	AJO-7221	AJO-7839	AJO-8301
C12	(Dodecyl)	1.5 - 10	AJO-7275	AJO-7842	AJO-8304
C8	(MOS, Octyl)	1.5 - 10	AJO-7222	AJO-7840	AJO-8302
C5	(Pentyl)	1.5 - 10	AJO-7372	—	—
C1	(TMS)	2 - 9	AJO-7373	—	—
Silica	—	—	AJO-7223	AJO-7229	AJO-8312
HILIC	HILIC	1.5 - 8	AJO-8902	—	—
NH₂	(Amino, Aminopropyl)	1.5 - 11	AJO-7364	AJO-8162	AJO-8309
CN	(Cyano, Cyanopropyl)	2 - 7.5	AJO-7313	AJO-8220	AJO-8311
Phenyl	(Phenylhexyl)	1.5 - 10	AJO-7314	AJO-7841	AJO-8303
PPF(2)	(Pentafluorophenylpropyl)	1.5 - 8	AJO-8376	AJO-8377	AJO-8378
SCX	(SA, Strong Cation Exchanger)	2.5 - 7.5	AJO-7369	AJO-8595	AJO-8596
SAX	(SB, Strong Anion Exchanger)	2.5 - 7.5	AJO-7370	—	—
RP-1	(Reversed Phase - Polymer)	0 - 14	AJO-7368	AJO-8358	—
Polar-RP	(Ether-linked Phenyl)	1.5 - 7	AJO-7276	AJO-7845	AJO-8307
Fusion-RP	(C18 Polar Embedded)	1.5 - 10	AJO-7558	AJO-7844	AJO-8306
AQ C18	(Polar Endcapped C18)	1.5 - 7.5	AJO-7512	AJO-7843	AJO-8305
Gemini[®] NX	(C18 TWIN-NX [™] Technology)	1 - 12	AJO-8369	AJO-8370	AJO-8371
Gemini[®] C18	(C18 TWIN [™] Technology)	1 - 12	AJO-7598	AJO-7846	AJO-8308
Gemini[®] C6-Phenyl	(C6-Phenyl TWIN [™] Technology)	1 - 12	—	—	—
Oligo-RP[™]	(C18 TWIN [™] Technology)	1 - 12	AJO-8136	AJO-8210	AJO-8310
Oligo-WAX[™]	(WA, Weak Anion Exchanger)	1.5 - 11	AJO-8325	AJO-8639	AJO-8420
Guard Cartridge Holders			/holder	/kit	/kit
(reusable holders)			AJO-7220	AJO-8223	AJO-8277



Designed for Prep HPLC columns with 9.0 to 49.0 mm internal diameter (ID)

Material	Description	pH Stability	PREP		
			SEMI-PREP	PREP	
IF YOUR HPLC COLUMN ID (mm) IS:					
9.0-16.0					
18.0-29.0					
30.0-49.0					
USE CARTRIDGES (mm):					
			10.0 x 10.0	15.0 x 21.2	15.0 x 30.0
			/3 pk	/ea	/ea
Cartridges for Protein and Polypeptide Reversed Phase					
<i>For use with silica columns for separation of proteins & peptides, such as Jupiter[®] (Phenomenex); Vydac[®] 218TP, 214TP (Alltech Associates, Inc.); SynChropak[®] 300 C18, C4 (Eprogen, Inc.); Nucleosil[®] 300 Å C18, C4 (Macherey-Nagel); HYPERSIL[®] 300 Å (Thermo Hypersil-Keystone), and other widepore or 300 Å brands.</i>					
Widepore C18	(ODS, Octadecyl)	1.5 - 10	AJO-7224	AJO-7230	AJO-8313
Widepore C5	(Pentyl)	1.5 - 10	AJO-7371	—	—
Widepore C4	(Butyl)	1.5 - 10	AJO-7225	AJO-7231	AJO-8314
Cartridges for Silica GFC			/3 pk	/ea	—
<i>(Aqueous SEC) For use with silica GFC columns, such as BioSep[®] (Phenomenex); ZORBAX[®] GF-Series (Agilent Technologies); Bio-Sil[®] (Bio-Rad).</i>					
GFC-2000	—	2 - 7.5	AJO-7365	AJO-8588	—
GFC-3000	—	2 - 7.5	AJO-7366	AJO-8589	—
GFC-4000	—	2 - 7.5	AJO-7367	AJO-8590	—
Cartridges for Chiral			/3 pk	/ea	/ea
<i>For use with chiral columns, such as Lux[®] Cellulose-1, -2, -3, -4 & Amylose-2 (Phenomenex); CHIRALCEL[®] OD-H[®] & CHIRALCEL[®] OJ-H[®], & CHIRALPAK[®] AD[®]-H (DAICEL Chemical Industries Ltd.)</i>					
Lux[®] Cellulose-1	Cellulose tris(3,5-dimethylphenylcarbamate)	2 - 9	AJO-8404	AJO-8405	AJO-8406
Lux[®] Cellulose-2	Cellulose tris(3-chloro-4-methylphenylcarbamate)	2 - 9	AJO-8399	AJO-8400	AJO-8401
Lux[®] Cellulose-3	Cellulose tris(4-methylbenzoate)	2 - 9	AJO-8623	AJO-8624	AJO-8625
Lux[®] Cellulose-4	Cellulose tris(4-chloro-3-methylphenylcarbamate)	2 - 9	AJO-8628	AJO-8629	AJO-8630
Lux[®] Amylose-2	Amylose tris(5-chloro-2-methyl-phenylcarbamate)	2 - 9	AJO-8472	AJO-8473	AJO-8474
Cartridges for Carbohydrate/Organic Acid			—	/ea	—
<i>For organic acid and carbohydrate analysis, such as Rezex[™] (Phenomenex); Aminex[®] (Bio-Rad); Sugar-Pak[™] (Waters).</i>					
Carbo-H⁺	—	1 - 8	—	AJO-8888	—
Carbo-Ag⁺	—	Neutral	—	AJO-8891	—
Carbo-Pb⁺²	—	Neutral	—	AJO-8890	—
Carbo-Ca⁺²	—	Neutral	—	AJO-8889	—
* For use with saccharide and oligosaccharide columns in Ag ⁺ form.					
Guard Cartridge Holders			/holder	/kit	/kit
(reusable holders)			AJO-7220	AJO-8223	AJO-8277



guarantee

If you are not completely satisfied with the performance of SecurityGuard, simply contact Phenomenex within 45 days and keep SecurityGuard for FREE.

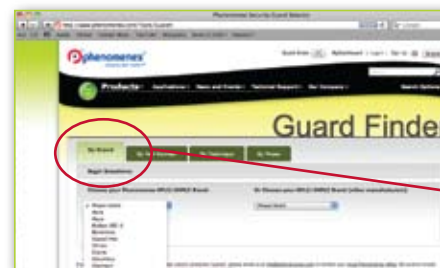
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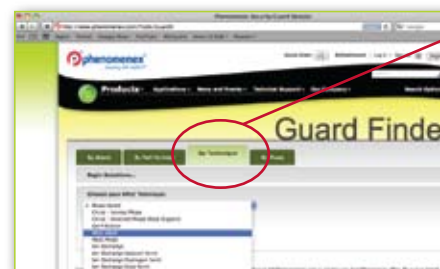


Select the guard selection wizard located on all the HPLC column brand web pages and SecurityGuard web pages

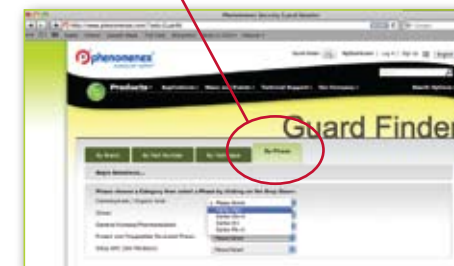


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