

Cogent TYPE-C™ Guard Columns

Column Protection

Guard columns/cartridges can be important for extending the lifetime of your analytical column. Without using a guard cartridge, particulates may collect in an HPLC column's inlet frit or in the first millimeter of the packed bed. This will result in degradation of the column's performance, manifesting itself as peak tailing, split peaks and/or increased back pressure. Instrument downtime may occur while the costly column is replaced or restored using a suitable clean-up flushing process. In addition, some compounds may irreversibly adsorb to the stationary phase, resulting in permanent damage to the column and causing shifting retention times and loss of peak resolution.

The use of a guard cartridge placed between the column and the injector valve enables damaging contaminants to be trapped on the disposable cartridge, thereby prolonging the lifetime of the analytical column. Ideally the guard cartridge should be packed with the same stationary phase material as the analytical column to be protected.

Figure 35. The 1.0mm i.d. and 2.0mm i.d. guard cartridges are for use with 1.0mm and 2.1mm i.d. analytical columns respectively, whereas the 4.0mm i.d. guard cartridges are for protection of 3.0mm and 4.6mm i.d. analytical columns. The hand-tightened holder allows for easy installation.



Code Key for Ordering Guard Columns

The following guard cartridge products are available for 4µm Cogent columns. To obtain the correct description and catalog number for your required Cogent product, replace 'phase type' with the required phase description (e.g. Diamond Hydride) and "XXXXX" with the following codes:

- Amide: **40036**
- Bidentate C8: **40008**
- Bidentate C18: **40018**
- Diamond Hydride: **70000**
- Diol: **40060**
- Phenyl Hydride: **69020**
- Silica-C: **40000**
- UDA: **40031**
- UDC-Cholesterol: **69069**

Catalog Numbers	MicroSolv Guard Product Description
XXXXX-HG1	Cogent Replacement Guard Columns Kit, 'phase type' 4µm. Includes 5 each Hichrom 2.0mm x 10mm Guard Columns in individual cases.
XXXXX-HG2	Cogent Replacement Guard Columns Kit, 'phase type' 4µm. Includes 5 each Hichrom 4.0mm x 10mm Guard Columns in individual cases.
XXXXX-HG3	Cogent Guard Column Kit, 'phase type' 4µm. Includes one Universal Holder and 5 each Hichrom 4.0mm x 10mm Guard Columns.
XXXXX-HG4	Cogent Guard Column Kit, 'phase type' 4µm. Includes one Universal Holder and 5 each Hichrom 2.0mm x 10mm Guard Columns.
XXXXX-HG5	Cogent Guard Column, 'phase type' 4µm. Holder required. 2.0mm x 10mm. 1 each
XXXXX-HG6	Cogent Guard Column, 'phase type' 4µm. Holder required. 4.0mm x 10mm. 1 each
XXXXX-HG7	Cogent Replacement Guard Columns Kit, 'phase type' 4µm. Includes 5 each Hichrom 1.0mm x 10mm Guard Columns in individual cases.
XXXXX-HG8	Cogent Guard Column Kit, 'phase type' 4µm. Includes one Universal Holder and 5 each Hichrom 1.0mm x 10mm Guard Columns.
XXXXX-HG9	Cogent Guard Column, 'phase type' 4µm. Holder required. 1.0mm x 10mm. 1 each
82000-GH	Guard cartridge holder 1 each for 10mm length, 1.0, 2.0 or 4.0mm i.d. cartridges
47450-06	Column coupler, for use with 1.0mm to 21.2mm i.d. Hichrom hardware columns (pictured on page 36)