

Great HPLC Columns  
made with State of the Art  
Technology & Standards



**C18**  
**C8**  
**CHOLESTEROL**  
**SILICA**  
**DIAMOND HYDRIDE**  
**NORMAL PHASE**  
*WITH CHIRAL*

  
**Cogent™ BRAND**  
**HPLC Columns from MicroSolv**

**Catalog for Polar and Non Polar Small  
Molecules, Peptides, Metabolites, Macro  
Molecules and Chiral Compounds**

## Cogent HPLC Columns Manufactured by



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# HPLC Columns

## C18



### COGENT BIDENTATE C18™

► HPLC Columns Bonded on TYPE-C™ Silica Technology

- Useful up to pH 10
- RP & NP & ANP
- Run Reverse Gradients
- Use with 100% Water or 100% Organic
- Robust and Reliable
- High Temperature Capable

**EXPANDED SELECTIVITY & SOLVENT USE:** These columns are truly remarkable in how stable, efficient and robust they are but more remarkable in the way they perform. These C18 columns will retain polar and non polar compounds in the same isocratic runs. Utilizing its ability to produce normal phase elution order of compounds with aqueous mobile phases, these columns will retain the most polar compounds with 70% and above, organic content.

What a great tool for LCMS or when developing a non-gradient method. Another powerful characteristic of these columns is their ability to perform a "reverse gradient" and to separate and retain polar compounds above 70% acetonitrile.

**USE IN REVERSE, NORMAL OR AQUEOUS NORMAL PHASES.**

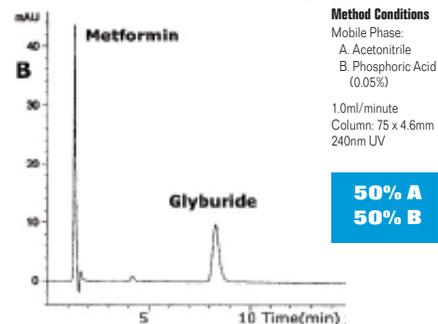
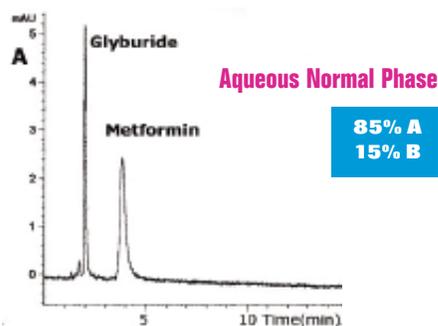
#### Column Specifications

- Phase & Bonding: C18, Bidentate (2Pts)
- Pore Size: 100Å
- Surface Area: 350m<sup>2</sup>/gm
- Pore Volume: 0.92mL/gm
- Particle Size: 4.0µm
- End Capped: No
- Carbon Load: 16.0%
- pH Range: 2.0–10.1
- Temperature Max: 125°C

Our most popular sizes

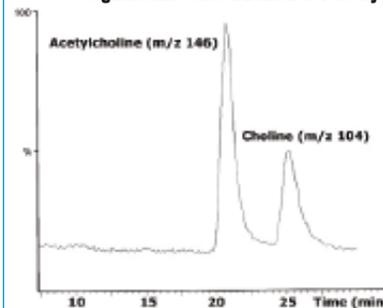
COGENT BIDENTATE C18™	
CAT. NO.	DESCRIPTION
40018-10P-1	1.0mm x 100mm
40018-15P-1	1.0mm x 150mm
40018-25P-1	1.0mm x 250mm
40018-05P-2	2.1mm x 50mm
40018-10P-2	2.1mm x 100mm
40018-15P-2	2.1mm x 150mm
40018-25P-2	2.1mm x 250mm
40018-05P	4.6mm x 50mm
40018-75P	4.6mm x 75mm
40018-10P	4.6mm x 100mm
40018-15P	4.6mm x 150mm
40018-25P	4.6mm x 250mm

#### Typical Separation of a polar and non-polar compound in one isocratic run.



**Method Conditions**  
 Mobile Phase:  
 A. Acetonitrile  
 B. Phosphoric Acid (0.05%)  
 1.0ml/minute  
 Column: 75 x 4.6mm  
 240nm UV

#### Separation of similar molecules at biologically significant concentration levels by LCMS.



**Method Conditions**  
 Mobile Phase:  
 A. Acetonitrile  
 B. Formic Acid (0.05%)  
 1.0ml/minute  
 Column: 20 x 2.1mm  
 Mass Detection

**Tech Note:** Analytes may increase retention with increased Acetonitrile content above 70% for all TYPE-C based HPLC Columns.

# HPLC Columns

## C8



### COGENT BIDENTATE C8™

► HPLC Columns Bonded on TYPE-C™ Silica

- Less Hydrophobic
- RP & NP & ANP (HILIC)
- Run Reverse Gradients
- Use with 100% Organic
- Robust and Reliable

#### Column Specifications

- Phase & Bonding: C8, Bidentate (2Pts)
- Pore Size: 100Å
- Surface Area: 350m<sup>2</sup>/gm
- Pore Volume: 0.92mL/gm
- Particle Size: 4µm
- End Capped: No
- Carbon Load: 7.0%
- pH Range: 2.0 – 10.1
- Temperature Max: 125°C

Our most popular sizes

COGENT BIDENTATE C8™	
CAT. NO.	DESCRIPTION
40008-10P-1	1.0mm x 100mm
40008-15P-1	1.0mm x 150mm
40008-25P-1	1.0mm x 250mm
40008-05P-2	2.1mm x 50mm
40008-10P-2	2.1mm x 100mm
40008-15P-2	2.1mm x 150mm
40008-25P-2	2.1mm x 250mm
40008-05P	4.6mm x 50mm
40008-75P	4.6mm x 75mm
40008-10P	4.6mm x 100mm
40008-15P	4.6mm x 150mm
40008-25P	4.6mm x 250mm

## Cholesterol



### COGENT™ UDC-CHOLESTEROL™

► HPLC Columns Bonded on TYPE-C™ Silica with Unique Phase

- Stable, Efficient, Powerful, Unique—Selectivity<sup>3</sup>™
- Run Reverse Gradients
- RP & NP & ANP (HILIC)
- Shape Recognition of Steroids

#### Column Specifications

- Phase & Bonding: Type-C, UDC-Cholesterol
- Pore Size: 100Å
- Surface Area: 350m<sup>2</sup>/gm
- Pore Volume: 0.92mL/gm
- Particle Size: 4µm
- End Capped: No
- Carbon Load: 11.0%
- pH Range: 2.0–8.0
- Temperature Max: 80°C

Our most popular sizes

COGENT UDC CHOLESTEROL™ HPLC COLUMNS	
CAT. NO.	DESCRIPTION
69069-10P-1	1.0mm x 100mm
69069-15P-1	1.0mm x 150mm
69069-25P-1	1.0mm x 250mm
69069-05P-2	2.1mm x 50mm
69069-10P-2	2.1mm x 100mm
69069-15P-2	2.1mm x 150mm
69069-25P-2	2.1mm x 250mm
69069-05P	4.6mm x 50mm
69069-75P	4.6mm x 75mm
69069-10P	4.6mm x 100mm
69069-15P	4.6mm x 150mm
69069-25P	4.6mm x 250mm

# HPLC Columns

## Silica



### COGENT SILICA-C™ COLUMNS FOR IMPROVED NORMAL PHASE HPLC

Perform normal phase reproducibility without any concern for moisture. Carbon free, Type-C™ Silica, makes NP as easy as Reverse Phase.

#### Column Specifications

- Phase & Bonding: Silica, Type-C™, unbonded
- Pore Size: 100Å
- Surface Area: 350m<sup>2</sup>/gm
- Pore Volume: 0.92mL/gm
- Particle Size: 4µm
- Carbon Load: 0%
- pH Range: 2.0 – 7.0
- Temperature Max: 125°C

Our most popular sizes

#### COGENT SILICA-C™ COLUMNS FOR IMPROVED NORMAL PHASE HPLC

CAT. NO.	DESCRIPTION
40000-05P-2	2.1mm x 50mm
40000-75P-2	2.1mm x 75mm
40000-10P-2	2.1mm x 100mm
40000-15P-2	2.1mm x 150mm
40000-05P	4.6mm x 50mm
40000-75P	4.6mm x 75mm
40000-10P	4.6mm x 100mm
40000-15P	4.6mm x 150mm
40000-25P	4.6mm x 250mm

Available in Semi Prep and Prep Sizes. Inquire for Details.

## C8



### COGENT BIDENTATE C8 300™ FOR MACRO MOLECULES

These columns offer all of the advantages of other TYPE-C™ columns including a useful range of hydrophobic to hydrophilic compounds, long life, resistant to TFA and other acids and lack of silanols. This column is made with a 5µm particle and 300Å pores for use with large molecules including proteins, peptides, polysaccharides and other polymers.

#### Column Specifications

- Phase & Bonding: C8-Bidentate
- Pore Size: 300Å
- Surface Area: 150m<sup>2</sup>/gm
- Pore Volume: 1.5mL/gm
- Particle Size: 5µm
- End Capped: No
- Carbon Load: 5%
- pH Range: 1.0 - 10.0
- Temperature Max: 125°C

Our most popular sizes

#### COGENT BIDENTATE C8 300™

CAT. NO.	DESCRIPTION
40008-05P-2-3M	2.1mm x 50mm
40008-75P-2-3M	2.1mm x 75mm
40008-10P-2-3M	2.1mm x 100mm
40008-15P-2-3M	2.1mm x 150mm
40008-10P-3M	4.6mm x 100mm
40008-15P-3M	4.6mm x 150mm
40008-25P-3M	4.6mm x 250mm

# HPLC Columns

## Diamond Hydride™



### COGENT DIAMOND HYDRIDE™ FOR POLAR MOLECULES

Excellent peak shape and good retention coupled with incredible reproducibility from run to run make these columns the best choice for metabolomics, organic acids, carbohydrates, amino acids, peptides and many polar and non polar compounds. This column operates in aqueous normal phase with a substantial range of solvents.

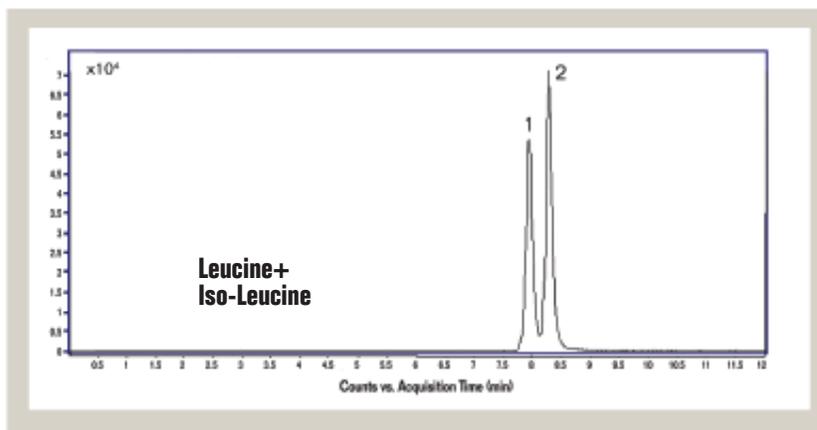
#### Column Specifications

- Phase & Bonding: Low Carbon
- Pore Size: 100Å
- Surface Area: 350m<sup>2</sup>/gm
- Pore Volume: 0.92mL/gm
- Particle Size: 4µm
- Carbon Load: >0.5%
- pH Range: 2.5 – 7.0
- Temperature Max : 60°C

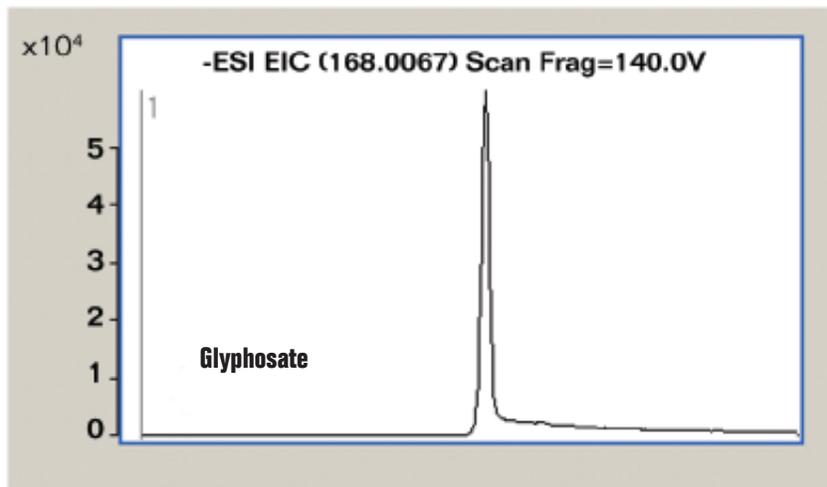
Our most popular sizes

COGENT DIAMOND HYDRIDE™	
CAT. NO.	DESCRIPTION
70000-05P-1	1.0mm x 50mm
70000-10P-1	1.0mm x 100mm
70000-15P-1	1.0mm x 150mm
70000-05P-2	2.1mm x 50mm
70000-75P-2	2.1mm x 75mm
70000-10P-2	2.1mm x 100mm
70000-15P-2	2.1mm x 150mm
70000-25P-2	2.1mm x 250mm
70000-05P	4.6mm x 50mm
70000-75P	4.6mm x 75mm
70000-10P	4.6mm x 100mm
70000-15P	4.6mm x 150mm
70000-25P	4.6mm x 250mm

#### Separate Isobaric Isomers



#### Retain Extreme Compounds



# HPLC Columns

## Metabolomics Kits



- ▶ Priced for Value ▶ Polar & Non Polar
- ▶ Perfect for LCMS

This column kit offers a great combination of 2 TYPE-C™ columns at a substantial cost savings.

If you are scouting or searching for very polar and very hydrophobic compounds, the Metabolomics kits contain the tools you need. A Cogent Diamond Hydride™ for polar compounds and a Cogent Bidentate C18™ column for hydrophobic compounds provide the ability to identify almost any compound. Used extensively in metabolomics but often used by other disciplines when looking for impurities, degradation products and other unknowns.

Our most popular sizes

METABOLOMICS KITS	
CAT. NO.	DESCRIPTION
43000-05P-2	2.1mm x 50mm
43000-10P-1	1.0mm x 100mm
43000-10P-2	2.1mm x 100mm
43000-10P	4.6mm x 100mm
43000-15P-2	2.1mm x 150mm

## Suite of Columns

- ▶ Priced for Value
- ▶ NP, ANP, RP Set of Selectivity
- ▶ Method Development Tool Box

The "Suite of Columns" is a complete set with one each of the main TYPE-C™ stationary phases. This array of selectivity offers an incredible reach in finding unknown compounds such as degradation products, impurities and compounds of extreme polarities which may otherwise go undetected when using ordinary HPLC columns.

Economically priced as a kit, the "Suites" save you money from purchasing each column separately and include each of the following phases: Bidentate C8™, Bidentate C18™, UDC-Cholesterol™, Diamond Hydride™ & Silica-C™.

Suites are used extensively as a both a scouting and method development tools because these columns are fast, precise, reliable and are orthogonal to each other.

Other sizes and dimensions of columns are available.

Our most popular sizes

SUITE OF COLUMNS	
CAT. NO.	DESCRIPTION
40100-02-2MC	2.0mm x 20mm
40100-02-2MC-G	2.0mm x 20mm Includes holder
40100-02-MC	4.0mm x 20mm
40100-02-MC-G	4.0mm x 20mm Includes holder
40100-05P	4.6mm x 50mm
40100-05P-2	2.1mm x 50mm
40100-05P-3	3.0mm x 50mm
40100-75P	4.6mm x 75mm
40100-75P-2	2.1mm x 75mm
40100-10P	4.6mm x 100mm
40100-10P-2	2.1mm x 100mm
40100-15P	4.6mm x 150mm
40100-15P-1	1.0mm x 150mm
40100-15P-2	2.1mm x 150mm
40100-25P	4.6mm x 250mm

# HPLC Columns

## Double E™ COGENT EE™ NORMAL PHASE COLUMNS WITH CHIRAL SELECTIVITY



These columns are truly unique and very useful when methods are needed that include both chiral and a-chiral compounds. With the expanded range of non polar solvents possible, these columns can retain compounds such as impurities and separate enantiomers. This is excellent for stability and purity checking. Also excellent as preparative phases.

These silica based columns are based on Type-B, high purity silica and are uniquely coated with cellulose carbamate that allows predictable separations based on HPLC principles as opposed to most chiral columns which only provide chiral separation.

### Column Specifications

- Phase & Coating: Cellulose Carbamate
- Pore Diameter: 5nM
- Particle Size: 5, 10 & 20µm
- Wet bulk Density: 0.45g/ml
- pH: 5 +/- 0.5
- pH Range: 3.0-7.0
- Temperature Max: 30°C
- End Capped: No

Analytical sizes, inquire for others.

COGENT EE™	
CAT. NO.	DESCRIPTION
65062-05P	4.6mm x 50mm
65062-75P	4.6mm x 75mm
65062-10P	4.6mm x 100mm

## Separate & Retain Chiral & a-Chiral in Same Run

## You Can Do More with Cogent HPLC Columns.

Cogent TYPE-C Columns  
Separated Everything  
You CAN do more!

$$\text{Si-OH} \rightarrow \text{Si-H Hydride}$$

**The Secret Is Out**

Cogent TYPE-C™ silica hydride HPLC columns are made with high purity silica. Through a proprietary process, the silica is modified to be populated with silicon hydride functional groups instead of silanols. This group of unique stationary phases provides a greatly expanded capability in HPLC. Try them, you won't be disappointed.

**YOU CAN DO MORE!**

### ORDER FROM:

MicroSolv Technology Corporation ▶ 1 Industrial Way West, Bldg E ▶ Eatontown, NJ 07724 USA

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www.mtc-usa.com ▶ email:customers@mtc-usa.com