

Cogent Phenyl Hydride™

For Aromatics

Cogent Phase	Particle Size (µm)	Pore Size (Å)	Surface Area (m ² /g)	Carbon Load (%)	Endcapped	Optimum pH Range	Recommended Max. Temp. (°C)	USP Code
Phenyl Hydride	4	100	390	10-12	No	2.0 - 8.0	80	L11
Phenyl Hydride 2.6™	2.2	120	340	9-10	No	2.0 - 8.0	80	L11

For further details on 2.6 columns, please see page 25. For ordering information, see page 31.

Ordinary phenyl columns include a Si-O-Si-C4-Phenyl ligand which makes them susceptible to hydrolysis and short column lifetime.

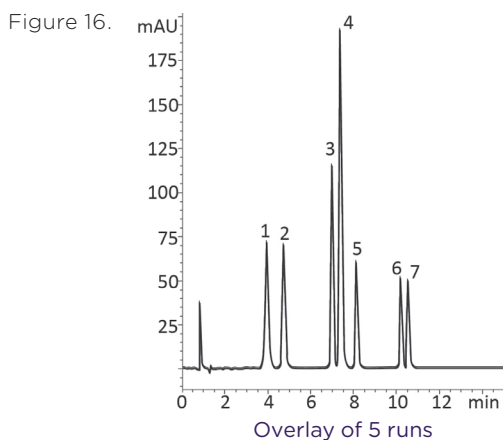
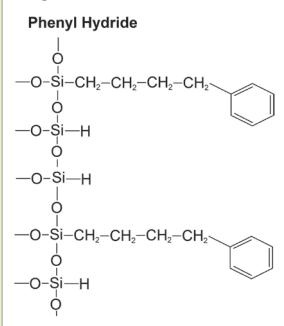
Cogent Phenyl Hydride columns have a silica-hydride surface similar to other TYPE-C silica phases and have a 4 carbon chain with a terminal phenyl group. Attached directly to the silica-hydride surface via a single, direct silicon-carbon bond these columns offer extraordinary robustness and reliability.

Cogent Phenyl Hydride also has the advantage of not having end-capping that could bleed into the mass spectrometer, making these columns ideal for LC-MS.

This column is a popular choice of laboratories working with small peptides, sulfonyl, azide and other aromatic compounds that are closely related. An excellent choice for analytes with rigid aromatic rings, as it offers π - π interactions as a separation mechanism.

Two applications of Cogent Phenyl Hydride in the reversed-phase mode are shown below, for cough syrup ingredients and cefprozil isomers.

Figure 15.

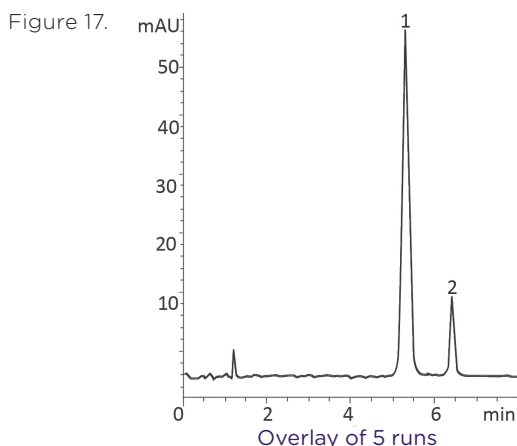


Method Conditions

Column: Cogent Phenyl Hydride, 4µm, 1 00Å
Catalog No.: 69020-7.5P
Dimensions: 4.6 x 75mm
Mobile Phase: A: DI water/ 0.1% TFA (v/v)
 B: Acetonitrile/ 0.1%TFA (v/v)

Gradient:	time (min.)	%B
	0	5
	2	5
	11	50
	12	5

Post Time: 3 min
Injection vol.: 2µL
Flow rate: 1.0mL/min
Detection: UV 210nm (0-6 min), 230nm (6-15 min)
Peaks: 1. Acetaminophen
 2. Pseudoephedrine
 3. Guaifenesin
 4. Benzoic Acid
 5. Methyl Paraben
 6. Dextromethorphan
 7. Propyl Paraben



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 B: Acetonitrile/ 0.1%TFA (v/v)

Gradient:	time (min.)	%B
	0	5
	6	20
	7	5

Post Time: 1 min
Injection vol.: 10µL
Flow rate: 1.0mL/min
Detection: UV 280nm
Peaks: 1. Cefprozil (Z-isomer)
 2. Cefprozil (E-isomer)