

# Analyze challenging polar compounds with confidence

Agilent InfinityLab Poroshell 120 HILIC columns



Hydrophilic interaction chromatography (HILIC) allows you to retain and separate polar analytes using a standard LC system and common reversed-phase solvents.


New Agilent InfinityLab Poroshell 120 HILIC chemistries combine innovative particle technology and bonded phases to improve retention and peak shape for polar analytes. So you can quickly and efficiently separate challenging, highly charged polar compounds—and achieve superior analytical sensitivity in MS mode using MS-friendly eluents.

## InfinityLab Poroshell 120 HILIC-Z columns

- Novel zwitterionic stationary phase bonded to 2.7  $\mu\text{m}$  Poroshell 120 particles
- PEEK-lined column option for excellent peak shape and recovery of particularly challenging charged compounds
- High pH and temperature stability: Up to pH 12 and 80  $^{\circ}\text{C}$

## InfinityLab Poroshell 120 HILIC-OH5 columns

- Novel poly-hydroxy fructan phase bonded to 2.7  $\mu\text{m}$  Poroshell 120 particles
- Offer alternate selectivity to HILIC and HILIC-Z phases

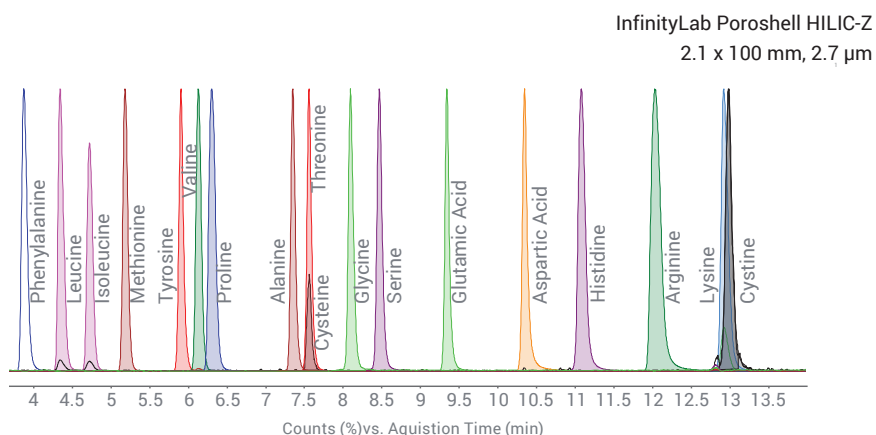


**Learn more about retaining and separating polar analytes**

Request your productivity kit—including application notes, InfinityLab Poroshell portfolio brochure, and more.

[www.agilent.com/chem/poroshell-120](http://www.agilent.com/chem/poroshell-120)

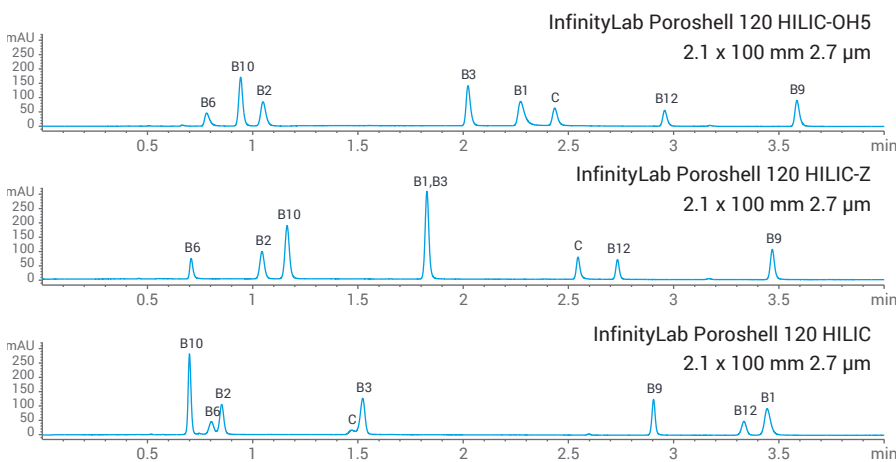
## Excellent retention, peak shape, and analytical sensitivity: Separation of underivatized amino acids by LC/MS



### Conditions:

- Mobile phase A: 20 mM ammonium formate in H<sub>2</sub>O, pH3
- Mobile phase B: 90:10 ACN/H<sub>2</sub>O with 20 mM ammonium formate, pH3
- Gradient: 100% B to 70% B over 10 min, return to 100% B
- Flow rate: 0.8 ml/min
- Temp: 30  $^{\circ}\text{C}$
- MS detection: Agilent MS-QQQ, MS2 SIM mode

## Retention and separation of water soluble vitamins



This example demonstrates **alternate selectivity** across Poroshell HILIC phases using the same method conditions. Separations can be further optimized on each column by altering method conditions.

### Conditions:

A: 100 mM Ammonium Acetate + 0.5% Acetic Acid (pH ~4.6) in H<sub>2</sub>O,

B: CH<sub>3</sub>CN 0.5 mL/min, 87% B for 1 min, 87-50% B in 4 min, 3 min re-equilibration

1 μL injection, 40 °C, UV detection at 260 nm, 80 Hz

### Water soluble vitamins (B&C)

thiamine (B1)  
riboflavin (B2)  
niacin/nicotinic acid (B3)  
pyridoxine/pyridoxol (B6)  
folate/folic acid (B9)  
4-aminobenzoic acid/PABA (B10)  
cyanocobalamin (B12)  
ascorbic acid (C)

## Ordering Information

Column description	Part number	Column description	Part number
InfinityLab Poroshell 120 HILIC-OH5, 2.1 x 50 mm, 2.7 μm	689775-601	InfinityLab Poroshell 120 HILIC-Z, 2.1 x 50 mm, 2.7 μm (PEEK lined)	679775-924
InfinityLab Poroshell 120 HILIC-OH5, 2.1 x 100 mm, 2.7 μm	685775-601	InfinityLab Poroshell 120 HILIC-Z, 2.1 x 100 mm, 2.7 μm (PEEK lined)	675775-924
InfinityLab Poroshell 120 HILIC-OH5, 2.1 x 150 mm, 2.7 μm	683775-601	InfinityLab Poroshell 120 HILIC-Z, 2.1 x 150 mm, 2.7 μm (PEEK lined)	673775-924
InfinityLab Poroshell 120 HILIC-OH5, 4.6 x 50 mm, 2.7 μm	689975-601		
InfinityLab Poroshell 120 HILIC-OH5, 4.6 x 100 mm, 2.7 μm	685975-601	InfinityLab Poroshell 120 HILIC-Z, 3.0 x 50 mm, 2.7 μm	689975-324
InfinityLab Poroshell 120 HILIC-OH5, 4.6 x 150 mm, 2.7 μm	683975-601	InfinityLab Poroshell 120 HILIC-Z, 3.0 x 100 mm, 2.7 μm	685975-324
		InfinityLab Poroshell 120 HILIC-Z, 3.0 x 150 mm, 2.7 μm	683975-324
UHPLC Guard, HILIC-Z, 2.1 mm x 5 mm, 2.7 μm, 3 pk	821725-947	InfinityLab Poroshell 120 HILIC-Z, 4.6 x 50 mm, 2.7 μm	689975-924
UHPLC Guard, HILIC-Z, 3.0 mm x 5 mm, 2.7 μm, 3 pk	823750-948	InfinityLab Poroshell 120 HILIC-Z, 4.6 x 100 mm, 2.7 μm	685975-924
UHPLC Guard, HILIC-Z, 4.6 mm x 5 mm, 2.7 μm, 3 pk	820750-933	InfinityLab Poroshell 120 HILIC-Z, 4.6 x 150 mm, 2.7 μm	683975-924
InfinityLab Poroshell 120 HILIC-Z, 2.1 x 50 mm, 2.7 μm	689775-924		
InfinityLab Poroshell 120 HILIC-Z, 2.1 x 100 mm, 2.7 μm	685775-924		
InfinityLab Poroshell 120 HILIC-Z, 2.1 x 150 mm, 2.7 μm	683775-924		



**Agilent InfinityLab** is an optimized portfolio of LC instruments, columns, and supplies designed to work together in perfect harmony. Combined with Agilent OpenLAB software and Agilent CrossLab Services, Agilent InfinityLab provides you with end-to-end support to make every day more productive. Learn more at [www.agilent.com/chem/infinitylab](http://www.agilent.com/chem/infinitylab)

Learn more about separating polar compounds using reversed-phase mobile phases

[www.agilent.com/chem/poroshell-120](http://www.agilent.com/chem/poroshell-120)

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