HPLC, LC/MS Columns

InertSustain® Amide

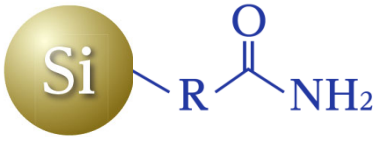
Designed to Retain Polar Analytes and Metabolites with Higher Chemical Stability

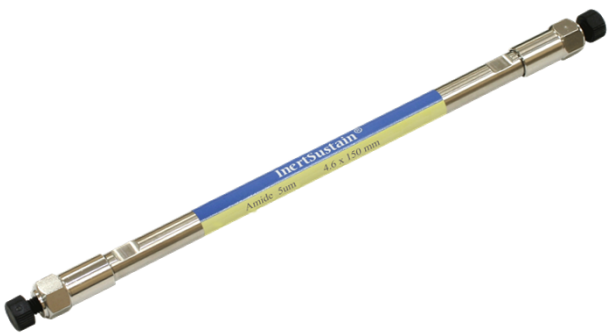
Benefits

- HILIC (Hydrophilic-Interaction Chromatography) column for enhanced retention of extremely polar compounds.
- Offering the strongest retentivity among the Amide columns available in the market due to the usage and bonding of carbamoyl groups.
- Superior stability and durability even under water rich mobile phases.

Physical Properties

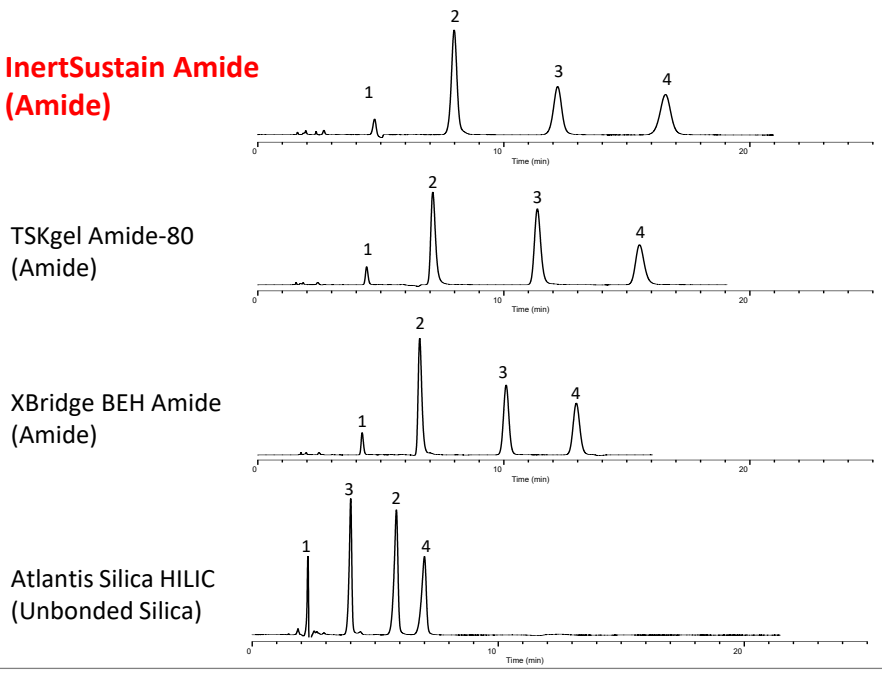
- Silica : ES (Evolved Surface) Silica Gel
- Particle Size : 3 µm, 5 µm
- Surface Area : 350 m^2/g
- Pore Size : 100 Å (10 nm)
- Pore Volume : 0.85 mL/g
- Bonded Phase : Carbamoyl Groups
- End-capping : None
- Carbon Loading : 15 %
- pH Range : 2～8.5
- USP Code : L68





Comparison of Retentivity

HILIC phases are particularly useful for compounds that are weakly retained by reversed-phase columns such as Melamine and Cyanuric Acid. As shown below, InertSustain Amide provides stronger retention for such analytes compared to other HILIC columns available in the market.

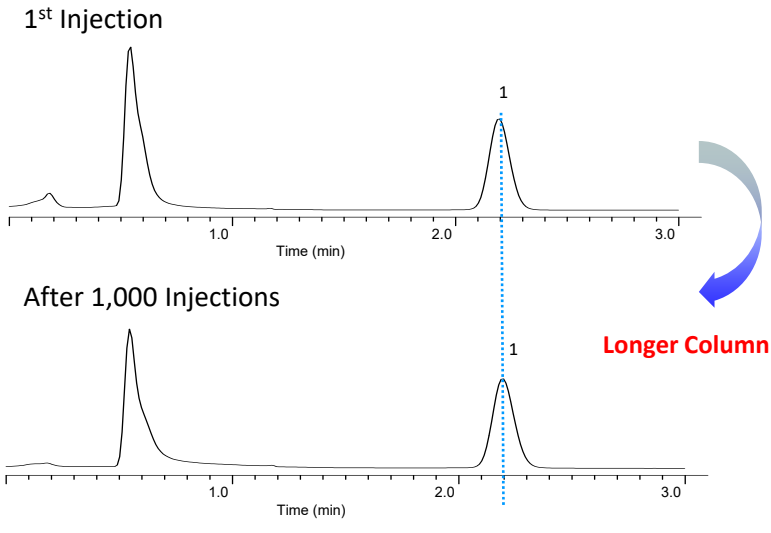


Conditions

Column : 5 µm, 150 × 2.1 mm I.D
Eluent : A) CH_3CN B) 10 mM $HCOONH_4$
A/B = 90/10, v/v
Flow Rate : 0.2 mL/min
Col. Temp.: 40 ℃
Detection : UV 215 nm
Sample : 1. Cyanuric Acid
2. Melamine
3. Ammelide
4. Ammeline

Extreme Durability

The use of metaphosphoric acid aqueous solution as a diluent solvent is a common technique to prevent the decomposition of sample in Vitamin C (Ascorbic acid) analysis. A silica-base Amide type columns often show short column lifetime due to the usage of strongly acidic diluent solvent in the analysis. As proven below, InertSustain Amide offer longer column lifetime even under such harsh analytical condition.



Conditions

Column : InertSustain Amide (5 µm, 150 × 3.0 mm I.D)
Eluent : A) CH_3CN B) 0.1% H_3PO_4
A/B = 87/13, v/v
Flow Rate : 0.8 mL / min
Col. Temp. : 40 ℃
Detection : UV 243 nm
Injection Vol. : 2 µL
Sample : 1. Ascorbic aciid
Diluent : 2 % metaphosphoric acid aqueous solution

Ordering Information

InertSustain Amide Analytical Columns

	Length ＼ I.D. (mm)	2.1	3.0	4.0	4.6
Particle Size : 3 µm	50	5020-88727	5020-88735	5020-88743	5020-88751
	75	5020-88728	5020-88736	5020-88744	5020-88752
	100	5020-88729	5020-88737	5020-88745	5020-88753
	150	5020-88731	5020-88739	5020-88747	5020-88755
	250	5020-88732	5020-88740	5020-88748	5020-88756
	Length ＼ I.D. (mm)	2.1	3.0	4.0	4.6
Particle Size : 5 µm	50	5020-88603	5020-88611	5020-88619	5020-88627
	75	5020-88604	5020-88612	5020-88620	5020-88628
	100	5020-88605	5020-88613	5020-88621	5020-88629
	150	5020-88607	5020-88615	5020-88623	5020-88631
	250	5020-88608	5020-88616	5020-88624	5020-88632

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