GL Sciences

HPLC, LC/MS Columns

InertSustain® Cyano

The Most Reliable and Reproducible Cyano Column

Physical Properties

- Silica : Newly Developed ES 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 : Cyanopropyl Groups
- End-capping : Yes
- Carbon Loading : 8 %
- pH Range : 2～7.5
- USP Code : L10

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The Most Reliable and Reproducible Cyano Column

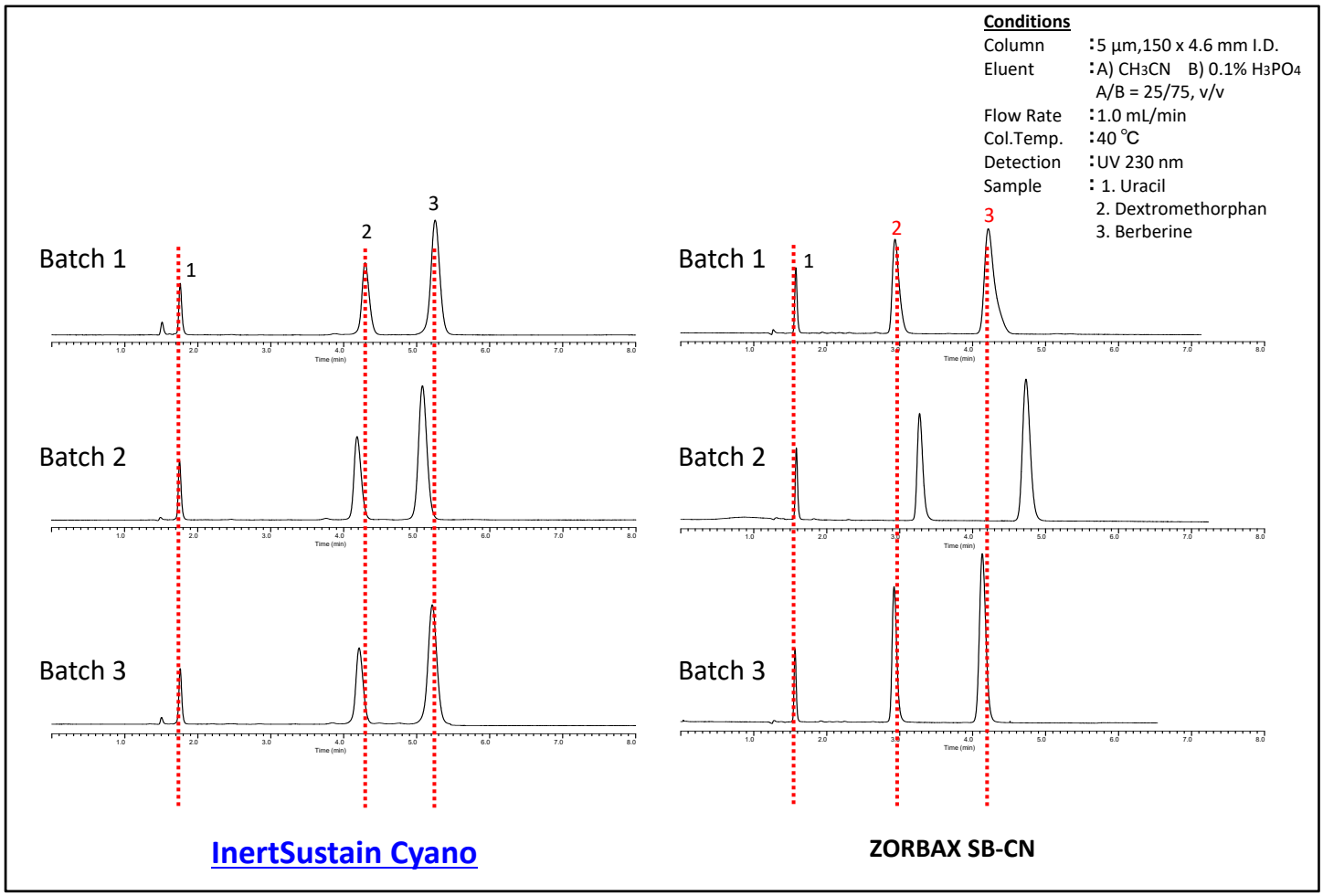
In general, the stability and reproducibility of the Cyano phase available in the market are poor. Many batch-to-batch or lot-to-lot reproducibility issues are occurring at many laboratories.
The InertSustain Cyano columns were developed to resolve these problems and are designed using the most modern LC column technology available providing them to be extremely inert, stable and reproducible.
The InertSustain Cyano columns are highly recommended for all pharmacopeia methods requiring a Cyano phase to be used. (Ex: USP L10)

Benefits

- Endlessly reproducible from column-to-column and batch-to-batch
- Highly recommended for all pharmacopeia methods requiring a Cyano phase to be used (Ex: USP L10)
- Highly inert packing material results in less tailing of peaks for virtually any type of analytes
- A new selectivity option for method development due to the multiple retention mechanisms
- Originally shipped in reversed-phase solvents and is ready to use for reversed-phase methods
- Can be used for both reversed-phase separations as well as normal-phase separations

Comparison of Batch-To-Batch Reproducibility

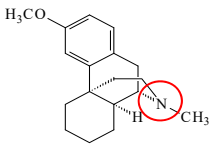
As proven below, InertSustain Cyano provide exceptional reproducibility from batch-to-batch even with those challenging strong basic compounds such as Dextromethorphan or Berberine.



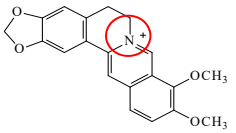
Highly Inert Packing Material

As shown below, InertSustain Cyano columns provide symmetric peaks for strong bases and chelating compounds, delivering highly stable chromatograms for qualitative and quantitative analysis.

Figure 1. Comparison of Peak Shapes using Strong Basic Compounds



2. Dextromethorphan

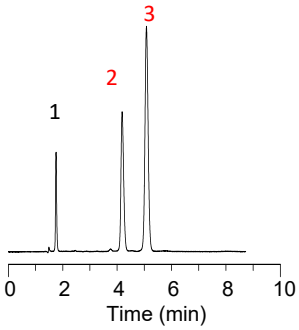


3. Berberine

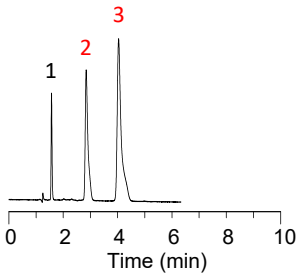
Conditions

Column	: 5 µm,150 x 4.6 mm I.D.
Eluent	: A) CH_3CN B) 0.1% H_3PO_4 A/B = 25/75, v/v
Flow Rate	: 1.0 mL/min
Col.Temp.	: 40 ℃
Detection	: UV 230 nm
Sample	: 1. Uracil 2. Dextromethorphan 3. Berberine

InertSustain Cyano



ZORBAX SB-CN



XSelect HSS CN

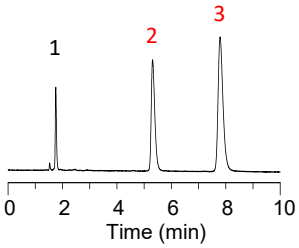
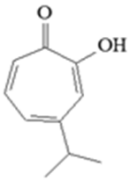


Figure 2. Comparison of Peak Shape using Strong Chelating Compound

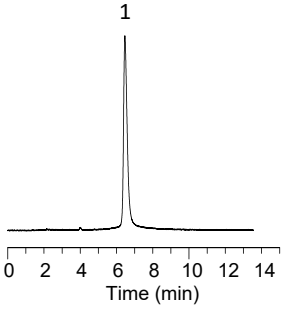


1. Hinokitiol

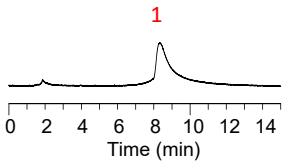
Conditions

Column	: 5 µm,150 × 4.6 mm I.D.
Eluent	: A) CH_3CN B) 0.1% H_3PO_4 A/B = 25/75, v/v
Flow Rate	: 1.0 mL/min
Col.Temp.	: 40 ℃
Detection	: UV 310 nm
Sample	: 1. Hinokitiol

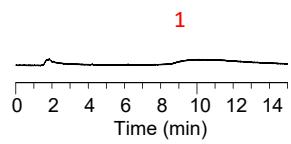
InertSustain Cyano



ZORBAX SB-CN



XSelect HSS CN



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