

## The Core®

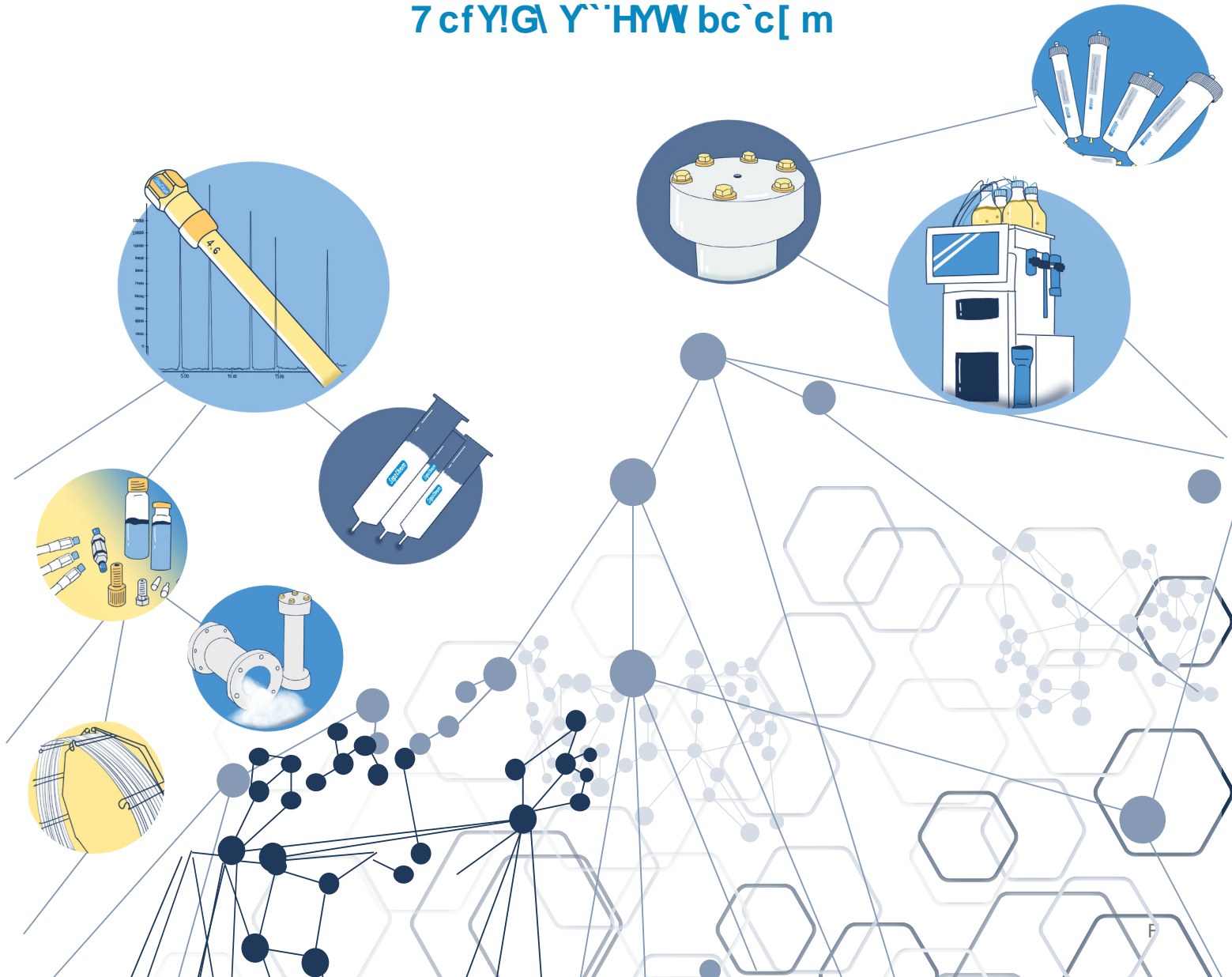


表面多孔

实心内核

- 在较低背压下具有出色的柱效
- 高分辨率或快速分析的理想之选
- 可用于UPLC或HPLC
- 常规分析的最佳选择
- 提供 **C18** 和 **C18-AQ** 两种固定相
- 提供 **2.7 μm** 和 **5.0 μm** 两种粒径

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# Your Specialists in Chromatography

## Company Profile

**SepaChrom** is the brainchild of the founders to create a dedicated reality, unique and able to support the **Chromatography users** optimizing their challenges.

Our Core competence is the manufacturing and trading of **High-Quality** products for **Chromatography**.

**SepaChrom** product portfolio includes a wide range of in-house manufactured **HPLC** Columns in both **Analytical** and **Preparative** scale, **Flash** cartridges & Instruments, and **Process** scale purification.

Our offer of products for Chromatography includes consumables and accessories, for both **HPLC** and **GC** techniques.

Our brands **Robusta**®, **Adamas**®, **Adamas**®-xp, **Vydamas**®, **TheCore**®, **TCM**®, **Purezza**®, **Sepa-Bulk**® are only few of the product lines we propose to the **Chromatographers**.

## Our Mission

Decades of experience of our team, combined with a range of High Quality selected products and the most efficient technological solutions, allows **SepaChrom** to be a reference to :

- **Pharma,**
- **Biotech,**
- **Chemical,**
- **Food and Beverage,**
- **Cosmetic,**
- **Environmental,**
- **Clinical**
- **Petrolchemical**

industries, at **R&D** department as well **QC** laboratories and **Production**.

Our commitment is to provide the Highest Technical Support that Chromatographers expect from

## Your Specialist in Chromatography



## Customers in Mind

The success of **SepaChrom** depends by the complete **satisfaction** of our customers, and consequently by their success.

**SepaChrom** expertise result in a High-Quality support **pre & after** sales to the Chromatographic Users.

A world-wide Distributor Network will assure the users the best in class technical and commercial support to properly approach their Chromatography challenges.

This include a **fast delivery** of your products from our warehouse to everywhere.



## 什么是核壳技术?

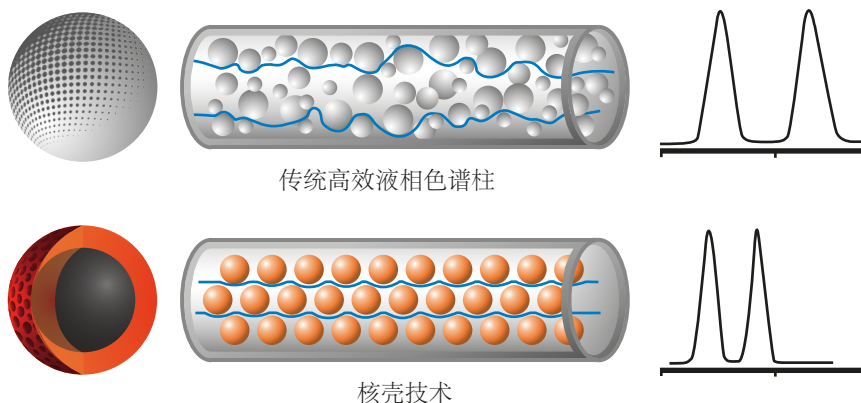
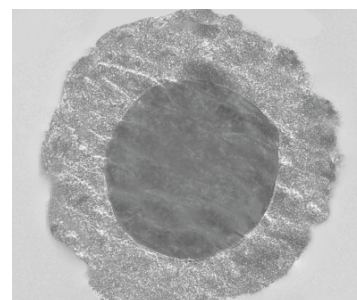
核壳技术也被称为表面多孔技术。  
核壳硅胶由实心内核和多孔外层组成。

## 这对色谱法意味着什么?

在色谱应用中使用核壳技术有很多优势。如：

### 1. 改进峰形和分辨率。

使用核壳技术，可以观察到峰形和分辨率的改善。  
分析物通过色谱柱的速度更快，这是因为粒度分布窄，色谱柱直径范围内的间隙速度更均匀。



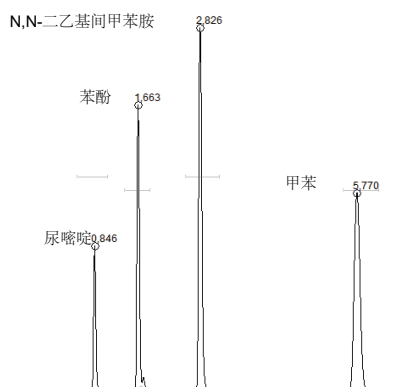
### 2. 降低背压

在更高的速度下，亚2 μm以下的全多孔颗粒会产生非常高的背压（大于6000 PSI），迫使色谱分析人员使用非常昂贵的仪器（UPLC）。这类仪器的使用也更具挑战性。使用亚2 μm全多孔填料需要特别注意色谱柱和系统的死体积和连接。而且全多孔亚2微米颗粒会增加摩擦系数，从而限制色谱柱的性能，尤其是在线速度较高的情况下。核壳颗粒具有更好的散热性能，可以在线速度较高的情况下使用。

#### UHPLC Column 1.8μ

Stock Number : **AD0845**  
Packing Material : Adamas® C18-X-Bond 1.8μ  
Length - ID : 100mm x 2.1mmID  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 0.2 mL/min

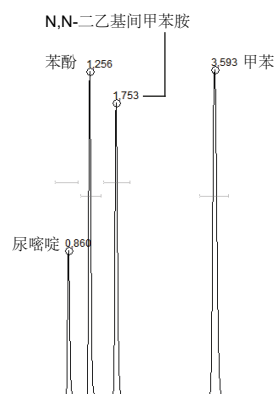
**Pressure (psi) : 6439**



#### Core-Shell Technology 2.7μ

Stock Number : **TC0004**  
Packing Material : TheCore® C18 2.7μ  
Length - ID : 100mm x 2.1mm  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 0.2 mL/min

**Pressure (psi) : 1736**



## 这对色谱法意味着什么?

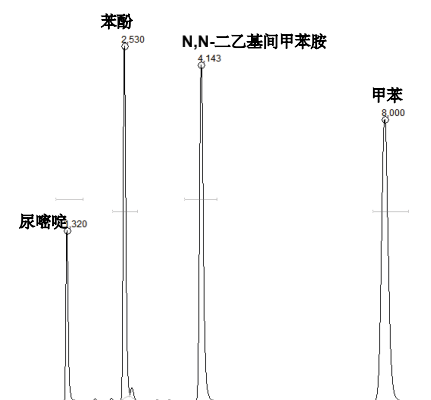
### 3. 更高的柱效

提高柱效的最重要的条件之一是涡流扩散系数（范德姆特方程），它会影响到色谱柱的柱效。分子一次性进入柱头，但传统高效液相色谱柱由于粒径分布过长造成流动相经过色谱柱有不同的路径，从而增加了涡流扩散机制。使柱效大打折扣，相反，核壳技术的粒度分布更窄，减少了通过色谱柱的路径，从而减少了涡流扩散机制，提高了柱效。

#### HPLC Traditional Column 3 $\mu$

Stock Number : **AD00845**  
Packing Material : Adamas® C18-X-Bond 3 $\mu$   
Length - ID : 150mm x 4.6mmID  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 1.0 mL/min

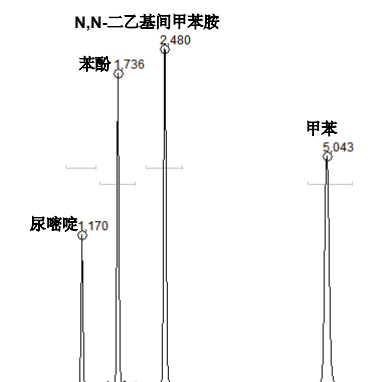
**Efficiency (p/m) : 115052 (Toluene)**



#### Core-Shell Technology 2.7 $\mu$

Stock Number : **TC0018**  
Packing Material : TheCore® C18 2.7 $\mu$   
Length - ID : 150mm x 4.6mm  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 1.0 mL/min

**Efficiency (p/m) : 191711 (Toluene)**



### 4. 提高生产率。

核壳技术将提高实验室的分析效率。

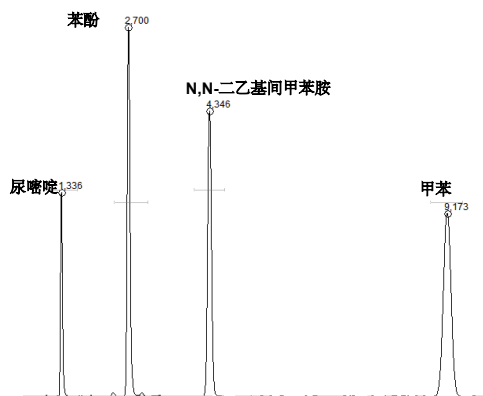
更低的背压和更高的柱效与高流动相流速相结合可在不影响分离质量的前提下大幅缩短分析时间。

在下面的质量控制测试中，您可以看到核壳技术缩短了 **90%** 的分析时间。

#### HPLC Traditional Column 3 $\mu$

Stock Number : **AD0045**  
Packing Material : Adamas® C18-Classic 3 $\mu$   
Length - ID : 150mm x 4.6mmID  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 1.0 mL/min

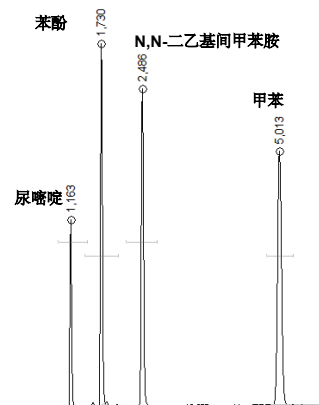
**Retention Time : 9.17 min (Toluene)**



#### Core-Shell Technology 2.7 $\mu$

Stock Number : **TC0018**  
Packing Material : TheCore® C18 2.7 $\mu$   
Length - ID : 150mm x 4.6mmID  
Mobile Phase : Acetonitrile/Water 58/42  
Flow Rate : 1.0 mL/min

**Retention Time : 5.01 min (Toluene)**



# TheCore® - HPLC Columns



TheCore® 是 SepaChrom 品牌的 HPLC 核壳硅胶填料。它有 2.7 微米和 5 微米两种规格，以及 C18 和 C18-A 键合相。

TheCore® C18-AQ 与 100% 水性流动相完全兼容，而 TheCore® C18 则具有传统 C18 的选择性和核壳技术的所有优点。

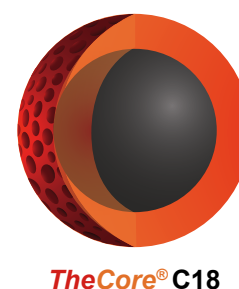
在方法验证方面，我们提供 TheCore® 方法验证工具包，其中包括 3 种不同批号的 3 根相同色谱柱，用于评估方法的质量和稳定性。

## TheCore® C18

### Reversed-Phase HPLC Columns

- 与传统 HPLC 系统/UHPLC/MS 检测器兼容
- 孔径: 90Å
- 载碳量: 7.7% (2.7µ) - 5.4% (5µ)
- 封端
- USP L-Code : L1

Ordering Information						
Phase	Particle Size	Length / ID	4.6mm	4.0mm	3.0mm	2.1mm
TheCore® C18	2.7µ	30mm	TC0013	TC0037	TC0007	TC0001
	2.7µ	50mm	TC0014	TC0038	TC0008	TC0002
	2.7µ	75mm	TC0015	TC0039	TC0009	TC0003
	2.7µ	100mm	TC0016	TC0040	TC0010	TC0004
	2.7µ	125mm	TC0017	TC0041	TC0011	TC0005
	2.7µ	150mm	TC0018	TC0042	TC0012	TC0006
	Full-Guard - 2.7µ*	5mm	CD2004	CD2003	CD2002	CD2001
	5µ	50mm	TC0052	TC0051	TC0050	TC0049
	5µ	75mm	TC0056	TC0055	TC0054	TC0053
	5µ	100mm	TC0060	TC0059	TC0058	TC0057
	5µ	125mm	TC0064	TC0063	TC0062	TC0061
	5µ	150mm	TC0068	TC0067	TC0066	TC0065
	5µ	250mm	TC0072	TC0071	TC0070	TC0069
	Full-Guard - 5µ*	5mm	CD2012	CD2011	CD2010	CD2009



## TheCore® 方法验证包

高效液相色谱柱的重现性是保证分析方法稳定性的关键参数。

我们的色谱柱具有极佳的批次间重现性，这得益于我们高质量的填料和可靠的填装技术。

方法验证工具包包含 3 根相同的色谱柱（不同批次的填料），用于评估方法的质量、可靠性和一致性。



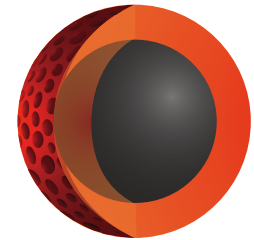
Ordering Information - Method Validation KIT				
Phase	Particle Size	Length / ID	Description	4.0mm
TheCore® C18	2.7µ	100mm x 2.1mm ID	TheCore® C18 - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0004-K
	2.7µ	100mm x 3.0mm ID	TheCore® C18 - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0010-K
	2.7µ	150mm x 2.1mm ID	TheCore® C18 - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0006-K
	2.7µ	150mm x 3.0mm ID	TheCore® C18 - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0012-K
	5µ	150mm x 3.0mm ID	TheCore® C18 - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0066-K
	5µ	150mm x 4.6mm ID	TheCore® C18 - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0068-K
	5µ	250mm x 3.0mm ID	TheCore® C18 - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0070-K
	5µ	250mm x 4.6mm ID	TheCore® C18 - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0072-K

**TheCore® C18-AQ**

Reversed-Phase HPLC Columns

- 与传统 HPLC 系统/UHPLC/MS 检测器兼容
- 与100%水相兼容
- 孔径: 90Å
- 载碳量: 6.7% (2.7µ) - 5.6% (5µ)
- 封端
- USP L-Code : L1

Ordering Information						
Phase	Particle Size	Length / ID	4.6mm	4.0mm	3.0mm	2.1mm
TheCore® C18-AQ	2.7µ	30mm	TC0031	TC0043	TC0025	TC0019
	2.7µ	50mm	TC0032	TC0044	TC0026	TC0020
	2.7µ	75mm	TC0033	TC0045	TC0027	TC0021
	2.7µ	100mm	TC0034	TC0046	TC0028	TC0022
	2.7µ	125mm	TC0035	TC0047	TC0029	TC0023
	2.7µ	150mm	TC0036	TC0048	TC0030	TC0024
	Full-Guard - 2.7µ*	5mm	CD2008	CD2007	CD2006	CD2005
	5µ	50mm	TC0076	TC0075	TC0074	TC0073
	5µ	75mm	TC0080	TC0079	TC0078	TC0077
	5µ	100mm	TC0084	TC0083	TC0082	TC0081
	5µ	125mm	TC0088	TC0087	TC0086	TC0085
	5µ	150mm	TC0092	TC0091	TC0090	TC0089
	5µ	250mm	TC0096	TC0095	TC0094	TC0093
	Full-Guard - 5µ*	5mm	CD2016	CD2015	CD2014	CD2013



TheCore® C18-AQ

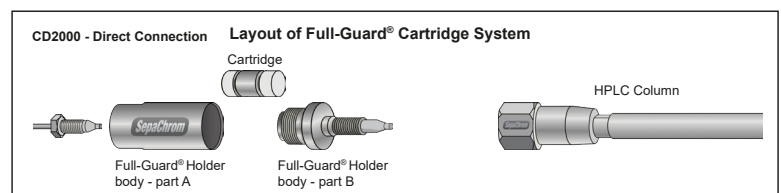
方法验证包

Ordering Information - Method Validation KIT				
Phase	Particle Size	Length / ID	Description	4.0mm
TheCore® C18-AQ	2.7µ	100mm x 2.1mm ID	TheCore® C18-AQ - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0022-K
	2.7µ	100mm x 3.0mm ID	TheCore® C18-AQ - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0028-K
	2.7µ	150mm x 2.1mm ID	TheCore® C18-AQ - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0024-K
	2.7µ	150mm x 3.0mm ID	TheCore® C18-AQ - Method Validation Kit 2.7µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0030-K
	5µ	150mm x 3.0mm ID	TheCore® C18-AQ - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0090-K
	5µ	150mm x 4.6mm ID	TheCore® C18-AQ - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0092-K
	5µ	250mm x 3.0mm ID	TheCore® C18-AQ - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0094-K
	5µ	250mm x 4.6mm ID	TheCore® C18-AQ - Method Validation Kit 5µ 3 COLUMNS - 3 DIFFERENT BATCHES	TC0096-K

保护高效液相色谱柱，不影响分离。

Full-Guard® 滤芯系统

- 简单 - 部件少、密封少、问题少
- 快速 - 更换滤芯只需几秒钟
- 可靠 - Full-Guard® 采用先进的制造工艺
- 高效 - 极低的死体积可保证色谱性能不会损失
- 通用 - Full-Guard® 可以配 2.1mmID - 3.0mmID - 4.0mmID - 4.6mmID 的色谱柱



Part No.	Full-Guard® Holder
CD2000	Full-Guard® Cartridge Holder 5mm - Direct Connection

植物大麻素标准混合物

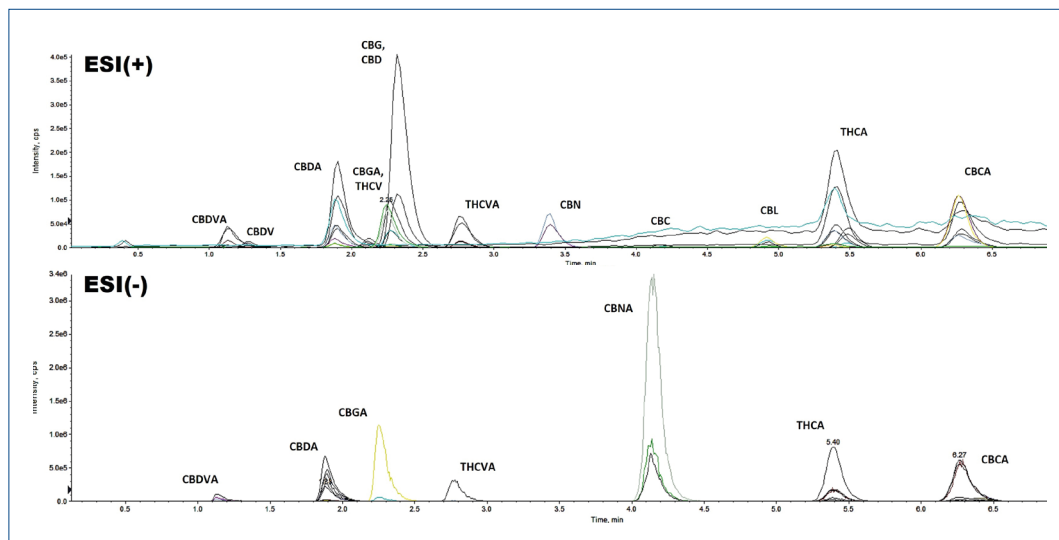
Part.No **TC0022** - TheCore® C18-AQ 100mm x 2.1mm - 2.7µm

Analysis Conditions:

Eluents : A - 0.1% Formic Acid / 5mM Ammonium Formate  
B - Acetonitrile/0.1% Formic Acid

Gradient	T(min)	A%	B%
	0.5	40	60
	4.5	38	62
	11.0	36	64
	11.2	5	95
	12.2	5	95
	12.7	40	60
	17.0	40	60

Flow Rate : 0.9 mL/min  
Injection : 5.0µL  
Concentration : 250µg/L  
Detector : MS  
Temperature : 40°C



Courtesy by Prof. Massimo Del Bubba and Dr. Lapo Renai. Department of Chemistry "Ugo Schiff", University of Florence, Italy.

抗生素、抗菌剂和其他药物化合物的混合物的分析

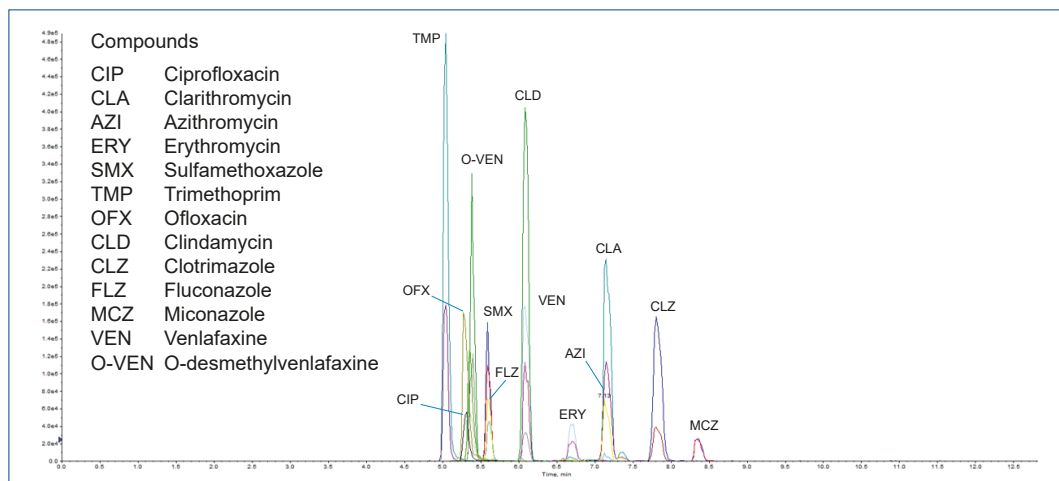
Part.No **TC0022** - TheCore® C18-AQ 100mm x 2.1mm - 2.7µm

Analysis Conditions:

Eluents : A - 9.7 mM Ammonium Formate + 0.057% (v/v) Formic Acid  
B-Acetonitrile/Methanol in a 1.75 (v/v) ratio, acidified

Gradient	T(min)	A%	B%
	1.0	95	5
	4.5	28.5	71.5
	6.9	10	90
	8.4	10	90
	8.9	95	5

Flow Rate : 0.5 mL/min  
Injection : 5.0µL  
Concentration : 20µg/L  
Detector : MS



Courtesy by Prof. Massimo Del Bubba and Dr. Lapo Renai. Department of Chemistry "Ugo Schiff", University of Florence, Italy.

## Other products available from SepaChrom

### HPLC

HPLC Silica Based Columns for Routine Analysis  
 HPLC & UHPLC Silica Based Columns for Small Molecules Separation  
 HPLC Silica Based Columns for Large Molecules Separation  
 HPLC Silica Based Columns for Traditional Chinese Medicine  
 Polymer Base Columns for Carbohydrate & Organic Acids Analysis Chiral HPLC Columns  
 Ion Chromatography Columns for Anions and Cations Analysis

ROBUSTA

Adamas

NO SPEED LIMIT  
18000 PSI  
UHPLC

The Core

### MEDIA

Irregular & Spherical Silica Gel for Flash, Preparative & Industrial Purification  
 Raw & Bonded Silica Gel for Any Application  
 Wide Range Porosity (30Å- 2500Å) and Particle Size (10µ-200µ)  
 Polymer Based Resin for Reversed Phase and Ion Exchange Chromatography

### PREP

10mm - 50mmID Packed Preparative Columns for Lab Scale Purification packed by SepaChrom  
 50mm - 2000mmID Process Scale Chromatography Columns & Systems, Flanged & DAC Technology  
 OEM Packed Preparative Columns  
 Scale-up Method Development & Custom Packing Service

ROBUSTA

Adamas

VYdamas

### FLASH

Instruments for Flash and Prep Chromatography up to 825mL/min & 400 bar pressure  
 Integrated ELSD & MS Simple Quad Detector for Flash Purification  
 TLC Plates and Accessories for Flash Chromatography  
 A Complete Range of Flash Columns for All Existing Flash Instruments

urezza

Advion Interchim

### SPE

SEClute™, Extract-Clean™, Maxi-Clean™ SPE Cartridges for Pharma, Environmental, Food&Beverage Applications.  
 PuroPhase™ Polymer Base SPE Cartridges for Clinical & Forensic Applications.  
 Maxi-Clean™ Ion Chromatography SPE Cartridges  
 Vydac® - Bioselect SPE Cartridges for Biological Samples  
 Accessories for SPE & Syringe Filters

### OTHER INSTRUMENTS

SepaChrom Hydrogen, Nitrogen and Air Generators for GC  
 SepaChrom Nitrogen Generators for LC-MS  
 Automated Sample Evaporators for Lab Scale Purification  
 Interchim Advion CMS Compact Mass Spectrometer Detector

### CONSUMABLE

Autosampler Vials for HPLC, IC e GC  
 Head Space and Sampling Vials  
 SS & PEEK Tubing, Fittings, Ferrule & Valves  
 Syringes and Septa for GC  
 Traps for GC Gas Lines