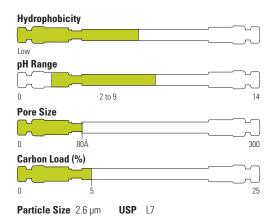
# Thermo Scientific Accucore C8 HPLC Column

Ultimate Core Performance to Maximize Your Investment

Lower hydrophobicity than C18 recommended for analytes with moderate hydrophobicity:

- Similar selectivity to C18 with lower retention
- Rugged and reproducible solid core particles
- Fast separations with superb resolution
- · Low backpressures







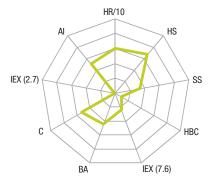
#### **Lower Hydrophobic Retention than C18**

Accucore<sup>™</sup> C8 HPLC columns offer lower hydrophobic retention than columns packed with longer alkyl chain length material, such as C18, and are therefore recommended for analytes with moderate hydrophobicity or when a less hydrophobic phase provides optimum retention.

The low levels of secondary interactions demonstrated in the phase characterization are the result of excellent bonded phase coverage and allow users of Accucore C8 HPLC columns to benefit from excellent peak shapes.

In common with all Accucore HPLC columns, Accucore C8 provides fast separations with superb resolution and generates only 50% of the backpressure associated with columns packed with sub-2  $\mu$ m materials.

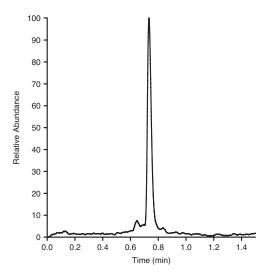
#### **Product Characterization**





| <b>HLPC Conditions</b>    |   | Part Number  |
|---------------------------|---|--------------|
| Instrument:               | Thermo Scientific Accela 600                  |              |
| Column:                   | Accucore C8, 2.6 μm, 50 x 2.1 mm              | 17226-052130 |
| Mobile phase A:           | water + 0.1% formic acid                      |              |
| Mobile phase B:           | acetonitrile + 0.1% formic acid               |              |
| Gradient:                 | 5 to 95 % B in 0.8 minutes                    |              |
| Flow rate:                | 1.5 mL/min                                    |              |
| Column temperature:       | 60°C  |              |
| Injection volume:         | 5 μL  |              |
| Injection wash solvent 1: | 80:20 (v/v) water / acetonitrile              |              |
| Injection wash solvent 2: | 45:45:10 (v/v/v) IPA / acetonitrile / acetone |              |

| MS Conditions               |                               |  |  |
|-----------------------------|-------------------------------|--|--|
| Instrument:                 | Thermo Scientific TSQ Vantage |  |  |
| Ionization conditions:      | HESI                          |  |  |
| Polarity:                   | Positive                      |  |  |
| Spray voltage (V):          | 4000                          |  |  |
| Vaporizer temperature (°C): | 425                           |  |  |
| Sheath gas pressure (Arb):  | 60                            |  |  |
| Aux gas pressure (Arb):     | 50                            |  |  |
| Capillary temp (°C):        | 350                           |  |  |
| Collision pressure (mTorr): | 1.5                           |  |  |
| Scan time(s):               | 0.02                          |  |  |
| Q1 (FWHM):                  | 0.7                           |  |  |
| Q3 (FWHM):                  | 0.7                           |  |  |



| Results                             | Peak 1: Testosterone |  |  |
|-------------------------------------|----------------------|--|--|
| Retention Time, t <sub>R</sub> /min | 0.73                 |  |  |
| %RSD t <sub>r</sub>                 | 0.22                 |  |  |
| %RSD Area                           | 3.01                 |  |  |

### The Key Components of Core Enhanced Technology

#### **Solid Core Particles**

2.6 µm diameter particles with a solid core generate high speed, high resolution separations without excessive backpressure

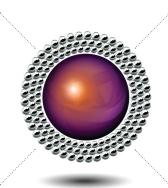
#### **Automated Packing Process**

Enhanced automated procedures ensure that all columns are packed with the highest quality

Accucore HPLC columns use Core Enhanced Technology<sup>TM</sup> to facilitate fast and high efficiency separations. The 2.6  $\mu$ m diameter particles are not totally porous, but rather have a solid core and a porous outer layer.

The optimised phase bonding creates a series of high coverage, robust phases. This coverage results in a significant reduction in secondary interactions and thus highly efficient peaks with very low tailing.

The tightly controlled 2.6  $\mu$ m diameter of Accucore particles results in much lower backpressures than typically seen with sub-2  $\mu$ m materials.



# Advanced Bonding Technology

efficiency columns

**Tight Control of Particle Diameter** 

Enhanced selection process keeps particle size

distribution to a minimum and produces high

Optimized phase bonding creates a series of high coverage, robust phases

## **Ordering Information**

| Description                        | Particle Size | Length (mm) | 2.1 mm ID    | 3.0 mm ID    | 4.6 mm ID    |
|------------------------------------|---------------|-------------|--------------|--------------|--------------|
| Accucore C8                        | 2.6 μm        | 30          | 17226-032130 | 17226-033030 | 17226-034630 |
| Accucore C8                        | 2.6 μm        | 50          | 17226-052130 | 17226-053030 | 17226-054630 |
| Accucore C8                        | 2.6 μm        | 100         | 17226-102130 | 17226-103030 | 17226-104630 |
| Accucore C8                        | 2.6 μm        | 150         | 17226-152130 | 17226-153030 | 17226-154630 |
| Defender Guard Cartridges (4/pack) | 2.6 μm        | 10          | 17226-012105 | 17226-013005 | 17226-014605 |
| UNIGUARD Cartridge Holder          |               |             | 852-00       | 852-00       | 850-00       |

#### thermoscientific.com/accucore

© 2012 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

USA and Canada +1 800 332 3331 France +33 (0)1 60 92 48 34 Germany +49 (0) 2423 9431 20 or 21 United Kingdom +44 (0)1928 534110 Japan +81 3 5826 1615 **China** +86 21 68654588 +86 10 84193588 +86 20 83145199 800 810 5118 **India** +91 22 6742 9494

**Australia** 1 300 735 292 (free call domestic) **New Zealand** 0800 933 966 (free call domestic) **All Other Enquiries** +44 (0) 1928 534 050

**Technical Support** 

North America +1 800 332 3331 Outside North America +44 (0) 1928 534 440

