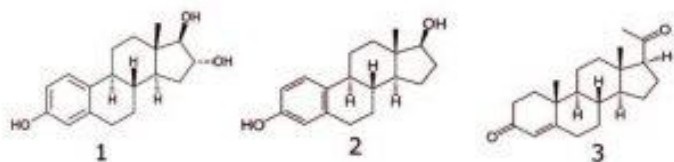
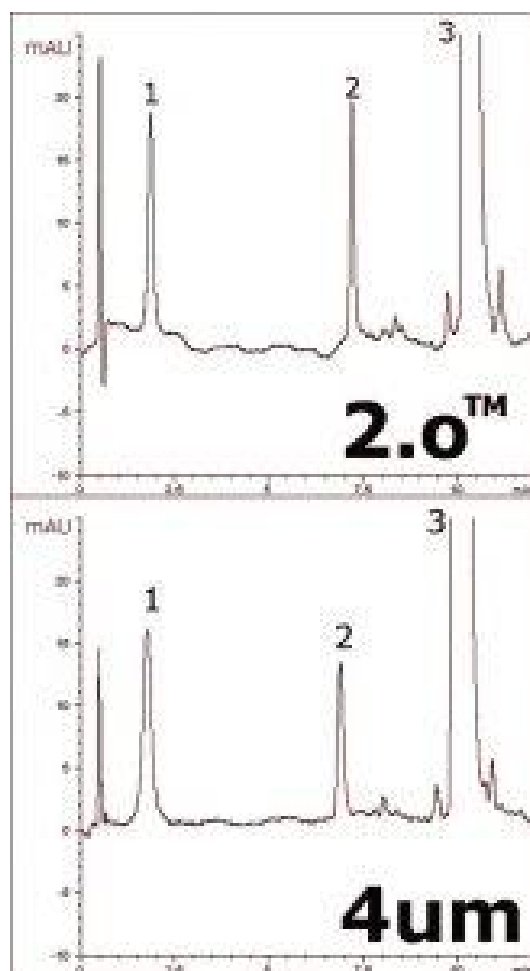


## Bi-Est® Method Transfer - AppNote

### 4µm to Near-UHPLC – Separation of Hormones: Estriol, Estradiol, and Progesterone

Separation of three components of a hormone replacement formulation is demonstrated in this Application Note using the Cogent Bidentate C18 2.0™ Column. The two figures demonstrate how comparable retention can be obtained for both the near-UHPLC column as well as the standard 4µm Column, allowing for easy method transfer.

As an example of the advantages for the 2.0™ Column, the calculated efficiency for peak 2 was 201,360 plates/m for the 4µm Column and 383,800 for the 2.0™.



### Peaks:

1. Estriol
2. Estradiol
3. Progesterone

### Method Conditions

**Column:** Cogent Bidentate C18 2.0™, 2.2µm, 120Å

**Catalog No.:** [40218-05P-2](#)

**Dimensions:** 2.1 x 50 mm

#### Solvents:

A: 90% DI Water / 10% Acetonitrile / 0.1% Formic Acid (v/v)

B: Acetonitrile / 0.1% Formic Acid (v/v)

Time (minutes)	%B
0	20
2	20
11	80
12	20

**Post time:** 5 minutes

**Injection vol.:** 2µL

**Flow rate:** 0.3mL/minute

**Detection:** UV @ 210 nm

**Sample:** The contents of a capsule containing 0.124 mg Estradiol, 1.001 mg Estriol, and 50 mg Progesterone were added to a 25 mL volumetric flask. The flask was diluted to mark with 5% solvent A / 95% solvent B and sonicated 10 min. Then a portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech. Corp.). Peak identities were confirmed by individual standards.



### Attachment

**No 345 Bi-Est Method Transfer pdf** 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

Copyright 2025, All Rights Apply

MicroSolv Technology Corporation

9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)