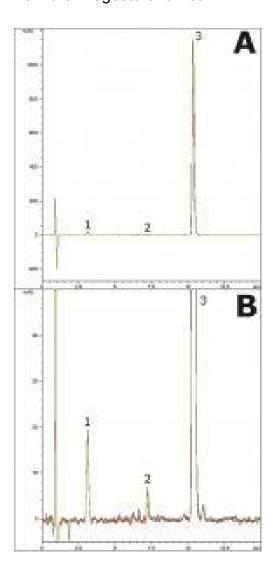


# Hormone Replacement Capsule Analysis by HPLC - AppNote

# Separation of Estriol, Estradiol, & Progesterone

This gradient method features a separation of the three components of a hormone replacement formulation. *Figure A* shows a five run overlay of the formulation extract injections. *Figure B* shows a zoomed-in view so that the Estriol and Estradiol Peaks, which are present in much lower concentration than Progesterone, can be seen clearly. *Figure B* also shows separation of an impurity from the Progesterone Peak.



#### Peak:

- 1. Estriol
- 2. Estradiol
- 3. Progesterone

# **Method Conditions**

Column: Cogent UDC Cholesterol™, 4µm, 100Å

Catalog No.: 69069-7.5P Dimensions: 4.6 x 75mm

**Mobile Phase:** 

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

## **Gradient:**

Time (minutes)	%B
0	33
2	33
11	65
12	33

Post Time: 3 minutes Flow rate: 1.0 mL / minute Detection: UV @ 210nm

Injection vol.: 1µL

**Sample Preparation:** 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 solvent B and sonicated 10 minutes. Then A portion was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech. Corp.). Peak identities were confirmed by individual standards of 0.1 mg / mL in a Solvent B diluent.



### **Attachment**

No 175 Hormone Replacement Capsule Analysis pdf 0.4 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

Website: www.mtc-usa.com