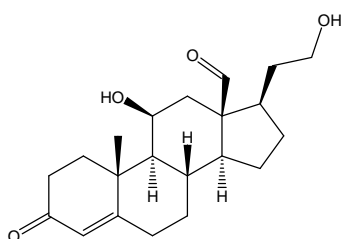


## ステロイドホルモン

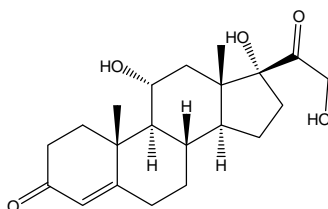
## Steroid hormones

コレステロールから生合成されるステロイドホルモンの一斉分析例を示します。CAPCELL CORE PFP S2.7 (2.1 mm i.d. x 150 mm) を用いて、10種のステロイドホルモンを同時に分析しました。流速は通常の流速 200  $\mu\text{L}/\text{min}$  の2.5倍としました。各成分は5分以内に、良好なピーク形状で分析されました(圧力:装置とカラムの分を含め最大 39.4 MPa)。

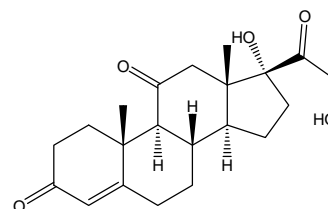
Ten steroid hormones derived from cholesterol were separated with CAPCELL CORE PFP S2.7 (2.1 mm i.d. x 150 mm). A flow rate was set at 500  $\mu\text{L}/\text{min}$ , 2.5 fold the common one for 2.1-mm columns. All the compounds were separated with good peak shapes within five minutes (maximum pressure across the column and instruments: 39.4 MPa).



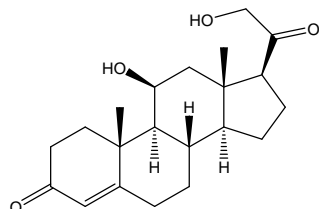
1. アルドステロン (10  $\mu\text{g}/\text{mL}$ )  
Aldosterone (M.W. 360.4)



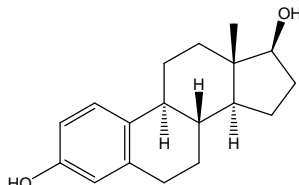
2. コルチゾール (10  $\mu\text{g}/\text{mL}$ )  
Cortisol (M.W. 362.5)



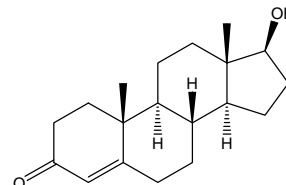
3. コルチゾン (10  $\mu\text{g}/\text{mL}$ )  
Cortisone (M.W. 360.5)



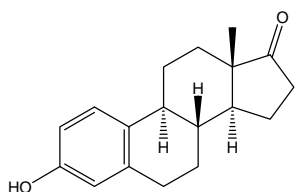
4. コルチコステロン (10  $\mu\text{g}/\text{mL}$ )  
Corticosterone (M.W. 346.5)



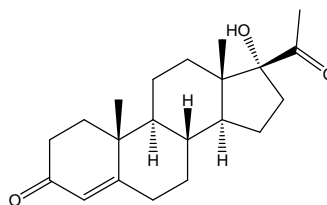
5. 17 $\beta$ -エストラジオール (10  $\mu\text{g}/\text{mL}$ )  
17 $\beta$ -Estradiol (M.W. 272.4)



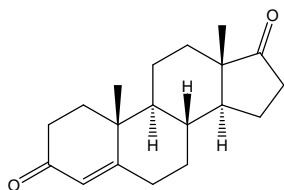
6. テストステロン (10  $\mu\text{g}/\text{mL}$ )  
Testosterone (M.W. 288.4)



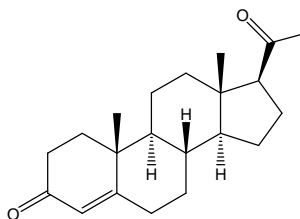
7. エストロン (10  $\mu\text{g}/\text{mL}$ )  
Estrone (M.W. 270.4)



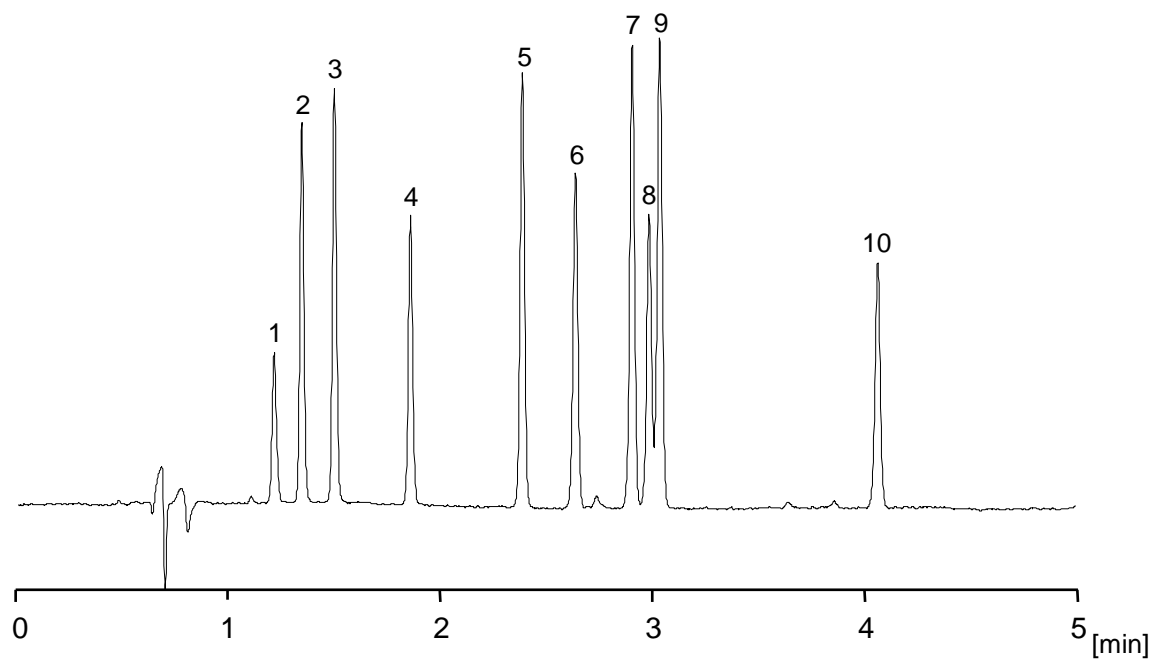
8. 17 $\alpha$ -ヒドロキシプロゲステロン (10  $\mu\text{g}/\text{mL}$ )  
17 $\alpha$ -Hydroxyprogesterone (M.W. 330.5)



9. 4-アンドロステン-3,17-ジオン (10  $\mu\text{g}/\text{mL}$ )  
4-Androstene-3,17-dione (M.W. 286.4)



10. プロゲステロン (10  $\mu\text{g}/\text{mL}$ )  
Progesterone (M.W. 314.5)



**【HPLC Conditions】**

Column : CAPCELL CORE PFP S2.7 ; 2.1 mm i.d. x 150 mm  
 Mobile phase : A) H<sub>2</sub>O, B) CH<sub>3</sub>CN  
                   B 30 % (0 min) → 60 % (4.5 min) → 30 % (4.6 min) Gradient  
 Flow rate : 500 μL/min  
 Temperature : 40 °C  
 Detection : UV 220 nm  
 Inj. vol. : 3 μL  
 Sample dissolved in : Each standard was separately dissolved in CH<sub>3</sub>CN at 1000 μg /mL.  
                           10 μL of all the solutions were added together, and diluted to 1 mL  
                           with the H<sub>2</sub>O.  
 ※ 1 μg/mL = 1 ppm