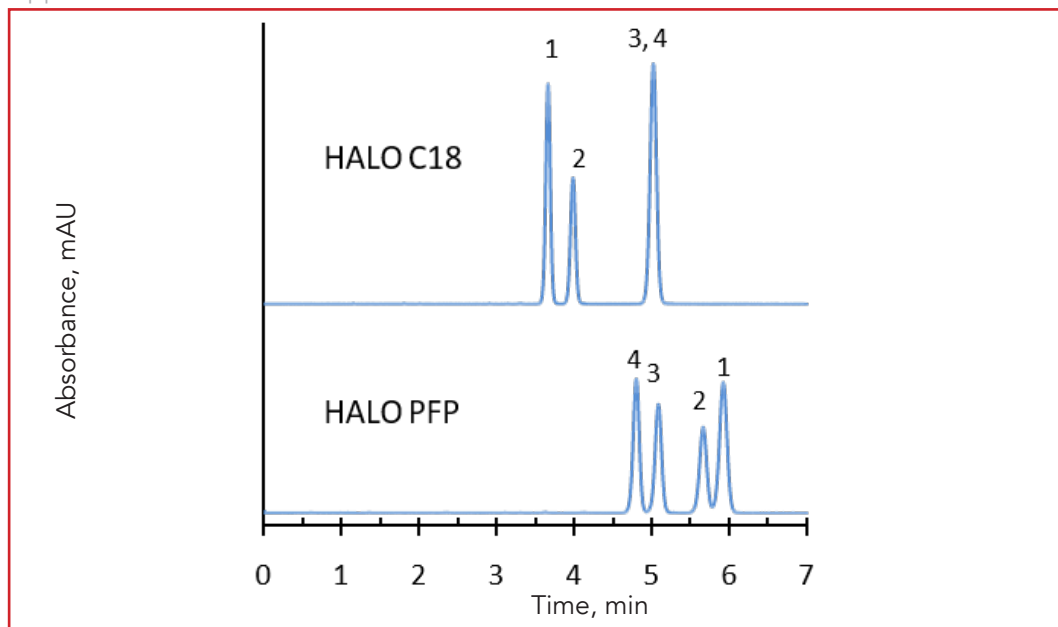




### Separation of Structurally Similar Steroids on HALO® C18 and PFP

Application Note 47-STR



#### PEAK IDENTITIES:

1. Prednisone
2. Cortisone
3. Prednisolone
4. Hydrocortisone

The unique selectivity of HALO® PFP is useful in the separation of the closely related steroids prednisolone and hydrocortisone. The electron-deficient ring structure of the perfluorophenyl group aids in separating compounds through pi-pi interactions with the sample.

#### TEST CONDITIONS:

##### Columns:

1) HALO 90 Å C18, 2.7 µm, 4.6 x 100 mm

**Part Number:** 92814-602

2) HALO 90 Å PFP, 2.7 µm, 4.6 x 100 mm

**Part Number:** 92814-609

**Mobile Phase:** 50/50 - A/B

A: Water

B: Methanol

**Flow Rate:** 1.0 mL/min

**Pressure:** ~230 bar

**Temperature:** 35 °C

**Detection:** UV 240 nm, VWD

**Injection Volume:** 0.5 µL

**Sample Solvent:** 80% methanol in water

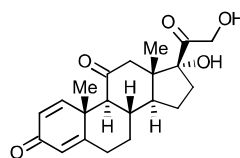
**Response Time:** 0.02 sec

**Flow Cell:** 2.5 µL semi-micro

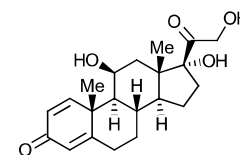
**LC System:** Shimadzu Prominence UFLC XR

**Extra Column Volume:** ~14 µL

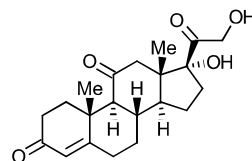
#### STRUCTURES:



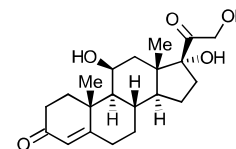
Prednisone



Prednisolone



Cortisone



Hydrocortisone

