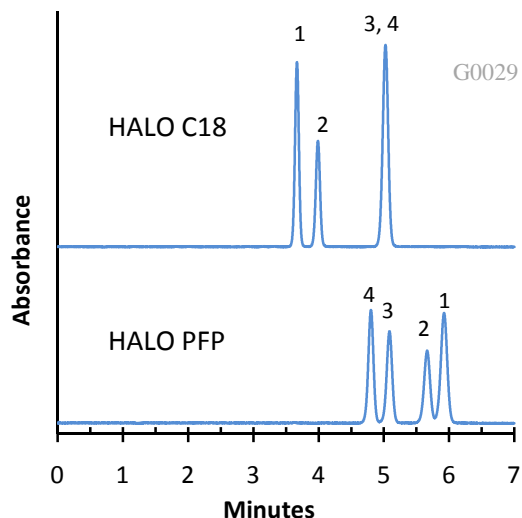


Application Note: 047-STR

Separation of Structurally Similar Steroids on HALO C18 and PFP



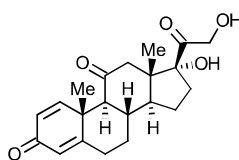
PEAK IDENTITIES:

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

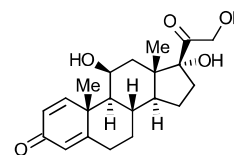
TEST CONDITIONS:

Columns: 4.6 x 100 mm, HALO C18
 4.6 x 100 mm, HALO PFP
 Part Numbers: C18, 92814-602
 PFP, 92814-609
 Mobile Phase: 50/50: water/methanol
 Flow Rate: 1.0 mL/min.
 Pressure: About 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
 ECV: ~14 µL

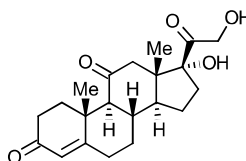
STRUCTURES:



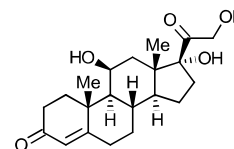
Prednisone



Prednisolone



Cortisone



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.