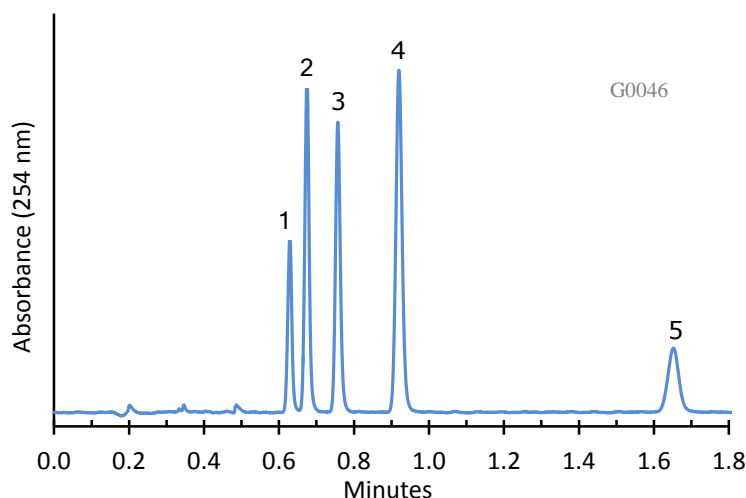


## Separation of 5 Beta Blocker Drugs on HALO Penta-HILIC



### PEAK IDENTITIES:

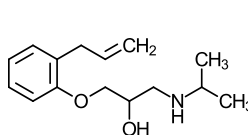
1. Alprenolol
2. Propranolol
3. Pindolol
4. Acebutolol
5. Atenolol

DRAFT 1

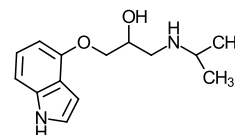
### TEST CONDITIONS:

Column: 4.6 x 100 mm, HALO Penta-HILIC  
Part Number: 92814-605  
Mobile Phase: 10/90: A/B  
A= 0.04 M Ammonium formate buffer, pH=3.0  
B= Acetonitrile  
Flow Rate: 3.0 mL/min.  
Pressure: 215 Bar  
Temperature: 30°C  
Detection: UV 254 nm, VWD  
Injection Volume: 2.0 µL  
Sample Solvent: mobile phase  
Response Time: 0.02 sec.  
Flow Cell: 2.5 µL semi-micro  
LC System: Shimadzu Prominence UFLC XR  
ECV: ~14 µL

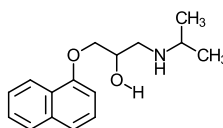
### STRUCTURES:



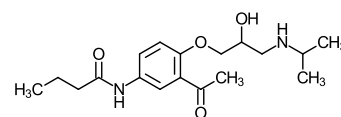
Alprenolol



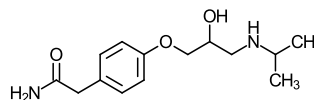
Pindolol



Propranolol



Acebutolol



Atenolol

The HALO Penta-HILIC stationary phase can rapidly separate highly basic compounds with good peak shapes in a mass spectrometry friendly mobile phase.