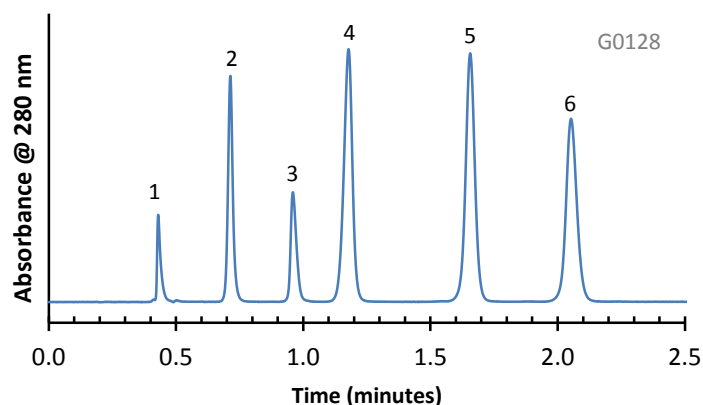


Application Note: 140-B

## Separation of Biogenic Amines on HALO 5 Phenyl-Hexyl by Ion-Pairing



### PEAK IDENTITIES:

1. System peak,  $t_0$
2. L-Tyrosine
3. Octopamine
4.  $\pm$  Synephrine
5. Tyramine
6. Hordenine

### TEST CONDITIONS:

Column: HALO 5 Phenyl-Hexyl, 3.0 x 100 mm, 5  $\mu$ m

Part Number: 95813-606

Mobile Phase: 78/22 A/B

A= 0.05 M Phosphate buffer, (pH=3.0)  
with 2.7 g/L of sodium hexanesulfonate

B= Methanol

Gradient:	Time (min.)	%B
	0.0	22
	4.0	30

Flow Rate: 0.8 mL/min.

Pressure: 170 Bar

Temperature: 30°C

Sample Solvent: 90/10: water/methanol

Injection Volume: 2.0  $\mu$ L

Detection: UV 280 nm, VWD

Response Time: 0.02 sec.

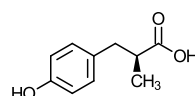
Data rate: 25 Hz

Flow Cell: 2.5  $\mu$ L semi-micro

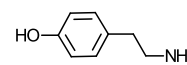
LC System: Shimadzu Prominence UFLC XR

ECV: ~14  $\mu$ L

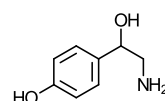
### STRUCTURES:



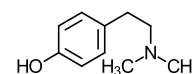
L-Tyrosine



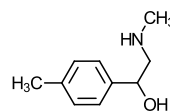
Tyramine



Octopamine



Hordenine



$\pm$  Synephrine

These five biogenic amines can be rapidly separated with excellent peak shape on a HALO 5 Phenyl-Hexyl column using a methanol/buffer mobile phase containing an ion-pairing reagent.