

## ZIC®-HILIC Separation of aromatic amines in aqueous extracts

### Chromatographic Conditions

Column: ZIC®-HILIC, PEEK 150 x 1.0 mm, 3.5 µm, 200A (P/N 150480)

Injection: 5 µL of a solution using 15 µL focusing liquid (acetonitrile/water (95/5, v/v)  
Aromatic amines (0.125 µg/mL); deuterated analogues (0.25 µg/mL)

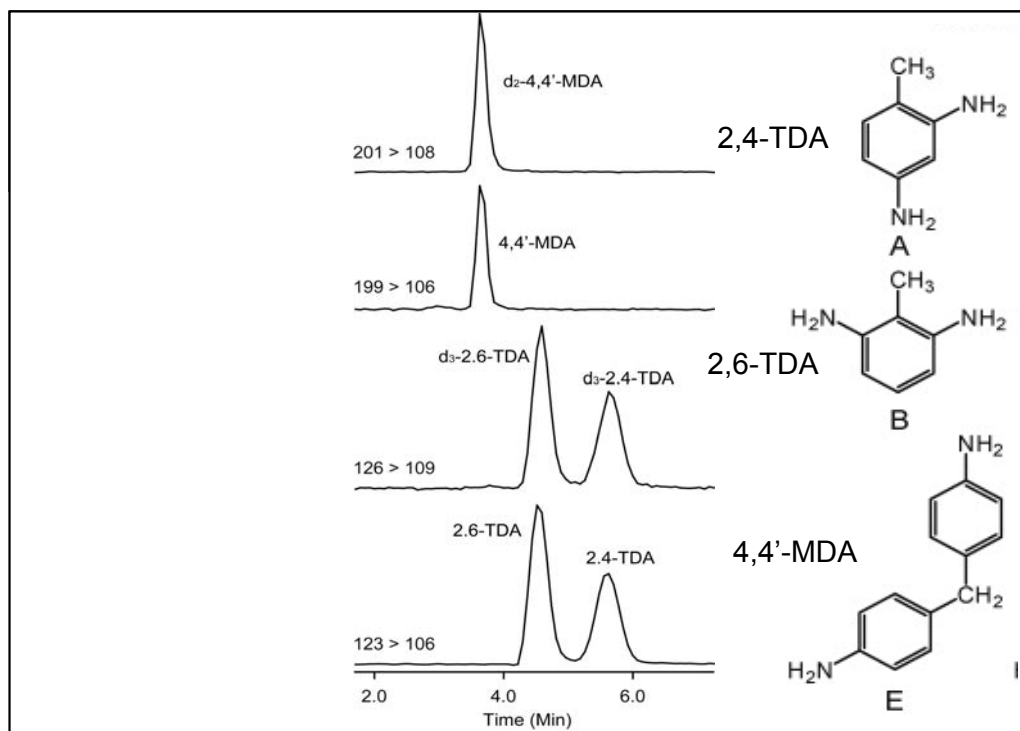
Detection: LC-MS/MS operated in positive electrospray ionisation (ESI) mode  
cone voltage of 25 V, capillary voltage of 4.65 kV, collision energy of 15 eV  
for TDA and 25 eV for MDA, desolvation temperature of 200 °C and  
ion source temperature of 130 °C. MRM performed for [M+H]<sup>+</sup>→[M-17]<sup>+</sup>  
for TDA and [M+H]<sup>+</sup>→[M-93]<sup>+</sup> for MDA with a dwell time of 0.2 s.

Flow Rate: 0.050 mL/min

Mobile Phase (v/v): A: 100%, Acetonitrile

B: 100% Milli-Q with 0.01% acetic acid

Gradient: Linear elution gradient (from 70/30/0.01 to 50/50/0.01  
acetonitrile/water/acetic acid, v/v/v) was applied over a period of 10 min.



### Chromatographic Data

No.	Compound	Time (min)	Retention factor*	Asymmetry
1	void volume ( $t_0$ )	0.4	-	-
3	4,4'-MDA	3.5		1.1
4	2,6-TDA	4.5		1.2
5	2,4-TDA	5.5		1.1

By courtesy of: Jakob Riddar Johnson, Work Environment Chemistry, Stockholm University, Hässleholm, Sweden  
reference: Analytica Chimica Acta 678 (2010) 117–123