Aromatic Urinary Diamines by UHPLC-APCI-MS/MS

ACE® Ultra-inert UHPLC & HPLC Columns

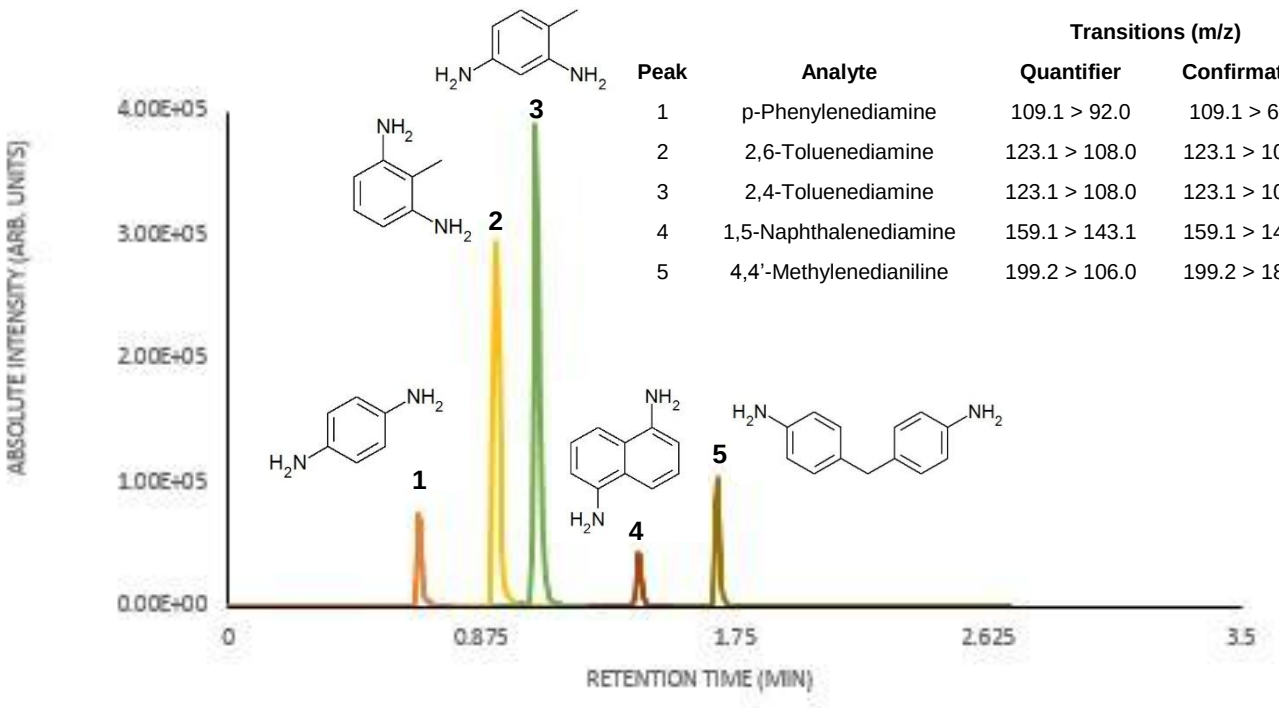
Application #AN4850

Conditions

Column:	ACE Excel 2 SuperC18
Dimensions:	100 x 2.1 mm
Part Number:	EXL-1011-1002U
Mobile Phase:	A: 5mM ammonium acetate, pH 9.2 B: Acetonitrile:100mM ammonium acetate in water, pH 9.2 (95:5)

Time (mins)	%B
0	10
1	30
2	90
2.5	15

Flow Rate:	0.5 mL/min
Injection:	5 µL
Temperature:	35 °C
Detection:	Sciex 5500 triple quad MS Positive ion APCI, MRM mode APCI ion current: 3 µA Probe temperature: 550 °C
Sample:	Diamines are metabolites of diisocyanates, used as biomarkers of exposure to diisocyanates when measured in human urine. Sample preparation includes acid hydrolysis followed by automated strong cation-exchange SPE.



Peak	Analyte	Transitions (m/z) Quantifier	Transitions (m/z) Confirmatory
1	p-Phenylenediamine	109.1 > 92.0	109.1 > 65.0
2	2,6-Toluenediamine	123.1 > 108.0	123.1 > 106.0
3	2,4-Toluenediamine	123.1 > 108.0	123.1 > 106.0
4	1,5-Naphthalenediamine	159.1 > 143.1	159.1 > 142.1
5	4,4'-Methylenedianiline	199.2 > 106.0	199.2 > 182.1

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