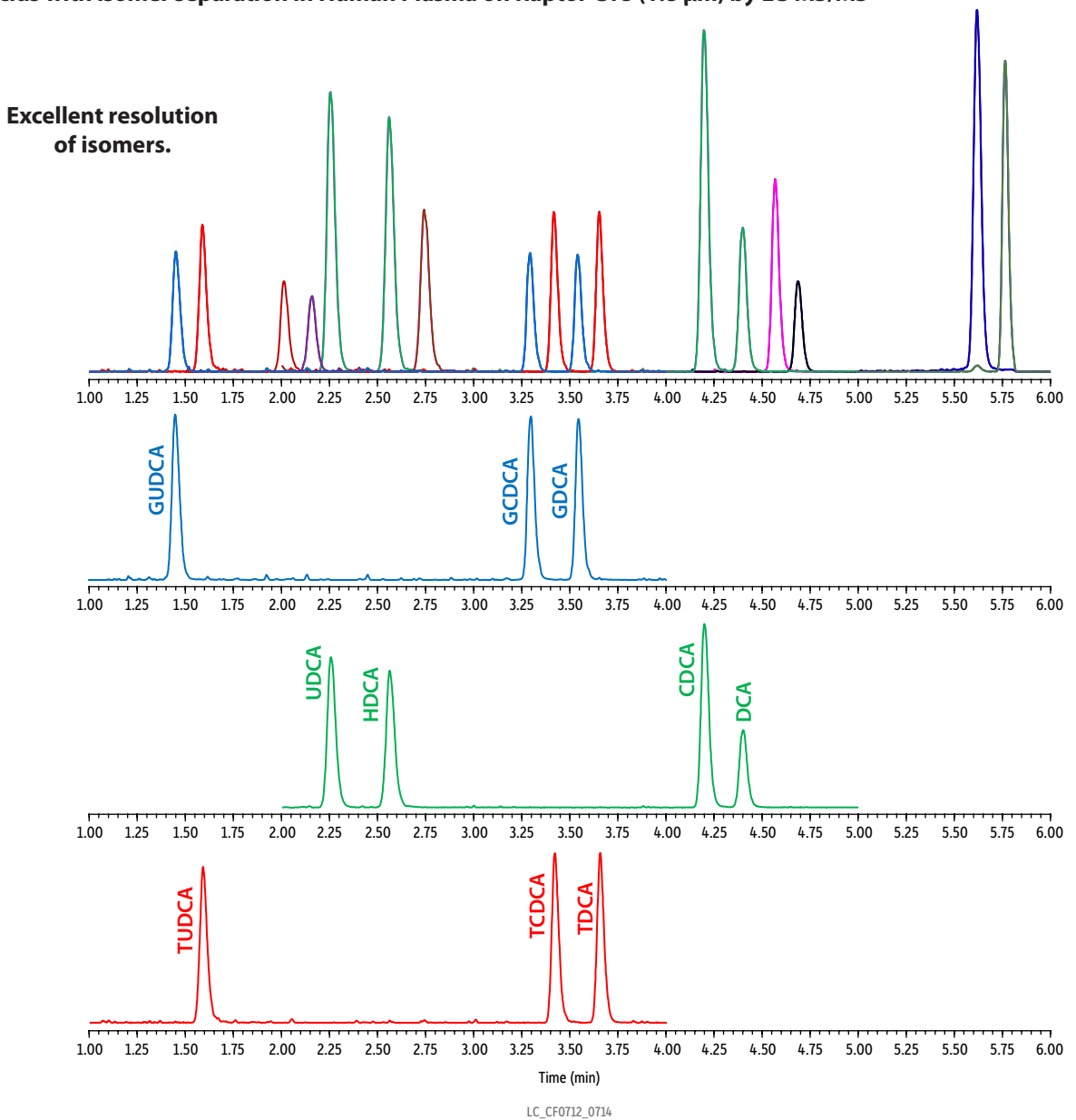
Bile Acids with isomer separation in Human Plasma on Raptor C18 (1.8 µm) by LC-MS/MS



LC_CF0712_0714

Column Raptor C18 (cat.# 9304252)
Dimensions: 50 mm x 2.1 mm ID
Particle Size: 1.8 µm
Pore Size: 90 Å
Guard Column: UltraShield UHPLC precolumn filter 0.2 µm (cat.# 25810)
Temp.: 60 °C

Sample
Diluent: 70:30 Water:methanol
Inj. Vol.: 3 µL

Mobile Phase
A: 5 mM Ammonium acetate in water
B: 50:50 Acetonitrile:methanol

Time (min)	Flow (mL/min)	%A	%B
0.00	0.5	65	35
2.00	0.5	60	40
2.50	0.5	55	45
3.50	0.5	50	50
4.60	0.5	45	55
5.70	0.5	20	80
5.90	0.8*	5	95
6.50	0.8*	5	95
6.51	0.5	65	35
8.50	0.5	65	35

Detector MS/MS
Ion Mode: ESI-
Mode: MRM
Instrument UHPLC
Notes *The flow rate was increased to 0.8 mL/min to more thoroughly flush phospholipids from the analytical column, thereby reducing matrix effects.

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	Peaks	t_R (min)	Conc. (ng/mL)	Precursor Ion	Product Ion
1.	Glycoursodeoxycholic acid (GUDCA)	1.451	540	448.4	74.1
2.	Tauroursodeoxycholic acid (TUDCA)	1.590	1,080	498.4	80.1
3.	Glycocholic acid (GCA)	2.012	540	464.3	74.2
4.	Taurocholic acid (TCA)	2.159	1,080	514.4	80.0
5.	Ursodeoxycholic acid (UDCA)	2.254	360	391.4	391.4
6.	Hyodeoxycholic acid (HDCA)	2.560	360	391.4	391.4
7.	Cholic acid (CA)	2.741	90	407.3	407.2
8.	Glycochenodeoxycholic acid (GCDCA)	3.293	540	448.4	74.1
9.	Taurochenodeoxycholic acid (TCDCA)	3.417	1,080	498.4	80.1
10.	Glycodeoxycholic acid (GDCA)	3.540	540	448.4	74.1
11.	Taurodeoxycholic acid (TDCA)	3.653	1,080	498.4	80.1
12.	Chenodeoxycholic acid (CDCA)	4.197	360	391.4	391.4
13.	Deoxycholic acid (DCA)	4.399	90	391.4	391.4
14.	Glycolithocholic acid (GLCA)	4.567	540	432.3	74.0
15.	Taurolithocholic acid (TLCA)	4.686	1,080	482.4	80.0
16.	Dehydrolithocholic acid (DHLCA)	5.618	90	373.3	373.3
17.	Lithocholic acid (LCA)	5.763	180	375.5	375.3