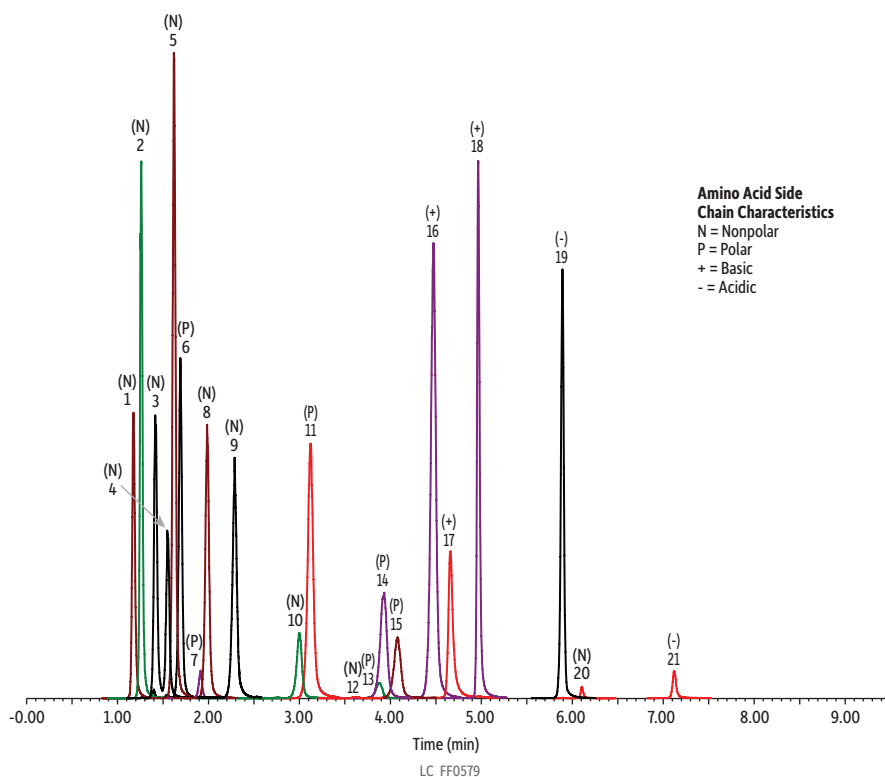


Underivatized Amino Acids Analysis in Baby Formula on Raptor Polar X



Peaks	ta (min)	Precursor Ion	Product Ion
1. Tryptophan	1.17	205.07	146.08
2. Phenylalanine	1.26	166.13	120.10
3. Leucine	1.41	132.13	86.10
4. Isoleucine	1.55	132.13	86.10
5. Methionine	1.62	150.07	104.10
6. Tyrosine	1.69	182.10	136.08
7. Taurine	1.91	126.07	108.07
8. Valine	1.98	118.13	72.11
9. Proline	2.29	116.13	70.09
10. Alanine	3.00	90.03	44.10
11. Threonine	3.12	120.13	74.08
12. Glycine	3.62	76.10	30.11
13. Glutamine	3.87	147.13	84.07
14. Serine	3.93	106.07	60.09
15. Asparagine	4.08	133.13	74.07
16. Arginine	4.47	175.17	70.09
17. Histidine	4.66	156.07	110.16
18. Lysine	4.97	147.13	84.13
19. Glutamic acid	5.89	148.10	84.10
20. Cystine	6.10	241.13	152.00
21. Aspartic acid	7.12	134.07	74.06

Column Raptor Polar X (cat.# 9311A12)
 Dimensions: 100 mm x 2.1 mm ID
 Particle Size: 2.7 µm
 Temp.: 30 °C

Sample
 Diluent: 20:80 Water:acetonitrile, 0.01 N HCl
 Conc.: Endogenous amino acids
 Inj. Vol.: 5 µL

Mobile Phase
 A: Water, 0.5% formic acid
 B: 9:1 Acetonitrile:water, 20 mM ammonium formate, pH3.0

Time (min)	Flow (mL/min)	%A	%B
0.00	0.5	12	88
3.50	0.5	12	88
8.00	0.5	70	30
8.01	0.5	12	88
10.0	0.5	12	88

Detector MS/MS
 Ion Mode: ESI+
 Mode: MRM
Instrument UHPLC
Notes

A 200 µL aliquot of protein hydrolysate formula (Similac ALIMENTUM) was mixed with 800 µL of acetonitrile and 10 µL of 1 N HCl. After centrifugation at 4000 rpm for 5 minutes, the supernatant was diluted 20-fold with 20:80 water:acetonitrile (0.01 N HCl) and injected for analysis.