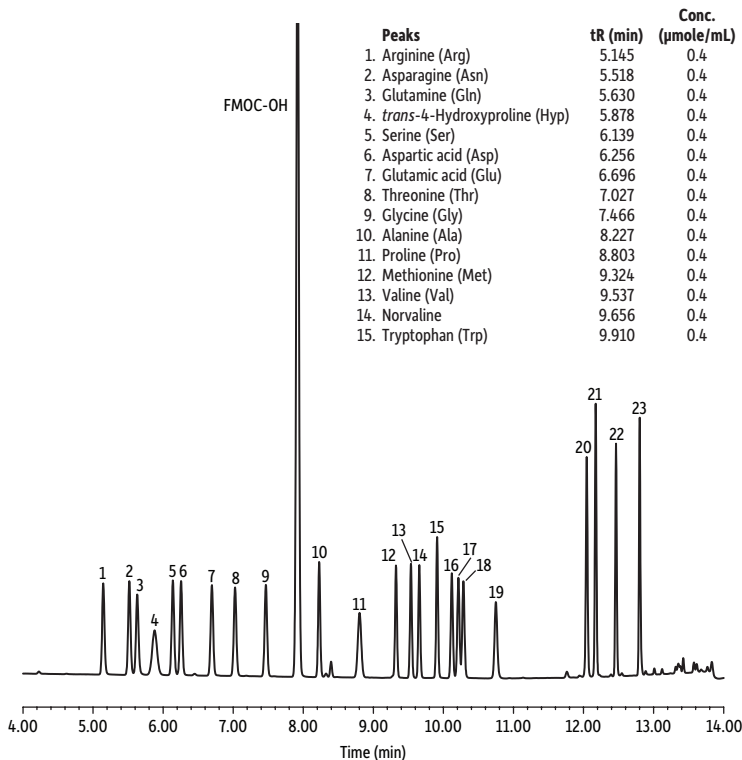


Amino Acids (9-Fluorenylmethyl-Chloroformate Derivatives) on Raptor™ ARC-18



LC_FF0539

Peaks	tR (min)	Conc. (µmole/mL)
1. Arginine (Arg)	5.145	0.4
2. Asparagine (Asn)	5.518	0.4
3. Glutamine (Gln)	5.630	0.4
4. <i>trans</i> -4-Hydroxyproline (Hyp)	5.878	0.4
5. Serine (Ser)	6.139	0.4
6. Aspartic acid (Asp)	6.256	0.4
7. Glutamic acid (Glu)	6.696	0.4
8. Threonine (Thr)	7.027	0.4
9. Glycine (Gly)	7.466	0.4
10. Alanine (Ala)	8.227	0.4
11. Proline (Pro)	8.803	0.4
12. Methionine (Met)	9.324	0.4
13. Valine (Val)	9.537	0.4
14. Norvaline	9.656	0.4
15. Tryptophan (Trp)	9.910	0.4

Peaks	tR (min)	Conc. (µmole/mL)
16. Phenylalanine (Phe)	10.120	0.4
17. Isoleucine (Ile)	10.214	0.4
18. Leucine (Leu)	10.285	0.4
19. Cystine	10.749	0.2
20. Histidine (His)	12.045	0.4
21. Lysine (Lys)	12.174	0.4
22. Cysteine (Cys)	12.463	0.4
23. Tyrosine (Tyr)	12.801	0.4

Amino acids are analyzed as 9-fluorenylmethyl-chloroformate derivatives.

Column Raptor™ ARC-18 (cat.# 9314A1E)

Dimensions: 100 mm x 3 mm ID

Particle Size: 2.7 µm

Temp.: 30 °C

Sample

Diluent: 0.1 N HCl

Conc.: 0.4 µmole/mL for each amino acid (0.2 µmole/mL for cystine)

Inj. Vol.: 1 µL

Mobile Phase

A: 0.1% Formic acid + 20 mM ammonium formate in water

B: 0.1% Formic acid + 10 mM ammonium formate in 90:10 acetonitrile:water

Time (min)	Flow (mL/min)	%A	%B
0.00	0.8	80	20
6.25	0.8	60	40
9.00	0.8	40	60
10.00	0.8	40	60
13.00	0.8	0	100
13.01	0.8	80	20
15.00	0.8	80	20

Detector UV/Vis @ 265, 4.8 nm

Instrument Waters Acquity® UPLC H-Class

Notes Derivatization reaction: 50 µL amino acid mix + 100 µL 0.2 N borate buffer (pH 10.0) + 50 µL 15 mM 9-fluorenylmethyl-chloroformate solution + 50 µL acetonitrile

The injection can be performed after 5 minutes of reaction time.