

Analysis of Fatty acids by LC/MS/MS

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Conditions

Column	: InertSustain AQ-C18 (3 μ m, 150 x 2.1 mm I.D.)	Flow rate	: 0.2 mL/min
Column Cat. No.	: 5020-00563 (Metal-free hardware)	Col. Temp.	: 50 °C
Guard Column	: SILFILTER STD C18	Detection	: LC/MS/MS (4000 Q TRAP® ESI, Negative, MRM)
Guard Column Cat. No.:	5020-10405	Injection Vol.	: 2 μ L
Eluent	: A) H ₂ O/CH ₃ CN/ CH ₃ COONH ₄ = 40: 60: 0.04, v/v/w B) CH ₃ CN/ IPA/ CH ₃ COONH ₄ = 10: 90: 0.04, v/v/w	Sample	: Standard solution

Time (min)	A (vol%)	B (vol%)
0.0	100	0
24.0	0	100
34.0	0	100

Analyte

	Q1 (m/z)	Q3 (m/z)
1. Dodecanoic acid (C12:0)	199.15	199.15
2. (9Z)-Tetradecenoic acid (C14:1, n-5)	225.20	225.20
3. (6Z,9Z,12Z,15Z)-Octadecatetraenoic acid (C18:4, n-3)	275.20	275.20
4. (5Z,8Z,11Z,14Z,17Z)-Eicosapentaenoic acid (C20:5, n-3)	301.20	301.20
5. Tetradecanoic acid (C14:0)	227.20	227.20
6. (9Z,12Z,15Z)-Octadecatrienoic acid (C18:3, n-3)	277.20	277.20
7. (6Z,9Z,12Z)-Octadecatrienoic acid (C18:3, n-6)	277.20	277.20
8. (9Z)-Hexadecenoic acid (Palmitoleic acid)(C16:1, n-7)	253.20	253.20
9. (4Z,7Z,10Z,13Z,16Z,19Z)-Docosahexaenoic acid (C22:6, n-3)	327.25	327.25
10. Pentadecanoic acid (C15:0)	241.20	241.20
11. (5Z,8Z,11Z,14Z)-Eicosatetraenoic acid (C20:4, n-6)	303.25	303.25
12. (9Z,12Z)-Octadecadienoic acid (C18:2, n-6)	279.25	279.25
13. (7Z,10Z,13Z,16Z,19Z)-Docosapentaenoic acid (C22:5, n-3)	329.25	329.25
14. (4Z,7Z,10Z,13Z,16Z)-Docosapentaenoic acid (C22:5, n-6)	329.25	329.25
15. (8Z,11Z,14Z)-Eicosatrienoic acid (C20:3, n-6)	305.25	305.25
16. Hexadecanoic acid (C16:0)	255.25	255.25
17. (11Z)-Octadecenoic acid (C18:1, n-7)	281.25	281.25
18. (9Z)-Octadecenoic acid (C18:1, n-9)	281.25	281.25
19. (7Z,10Z,13Z,16Z)-Docosatetraenoic acid (C22:4, n-6)	331.25	331.25
20. (11Z,14Z)-Eicosadienoic acid (C20:2, n-6)	307.25	307.25
21. Heptadecanoic acid (C17:0)	269.25	269.25
22. Octadecanoic acid (C18:0)	283.25	283.25
23. (11Z)-Eicosenoic acid (C20:1, n-9)	309.30	309.30
24. Nonadecanoic acid (C19:0)	297.30	297.30
25. Eicosanoic acid (C20:0)	311.30	311.30
26. (13Z)-Docosenoic acid (C22:1, n-9)	337.30	337.30
27. Docosanoic acid (C22:0)	339.35	339.35
28. (15Z)-Tetracosenoic acid (C24:1, n-9)	365.35	365.35
29. Tetracosanoic acid (C24:0)	367.35	367.35
(Approx. 0.2 mg/L each)		

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