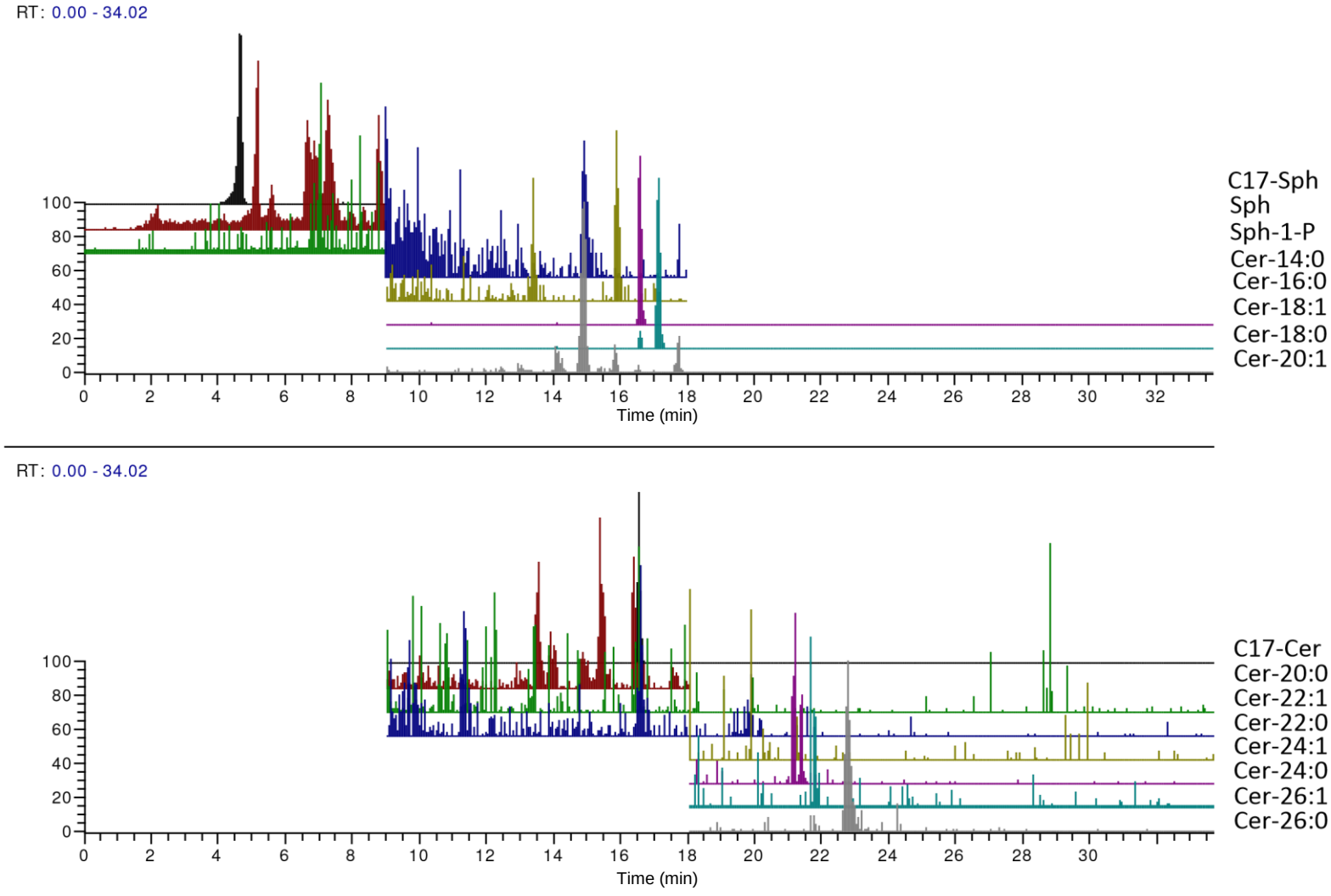
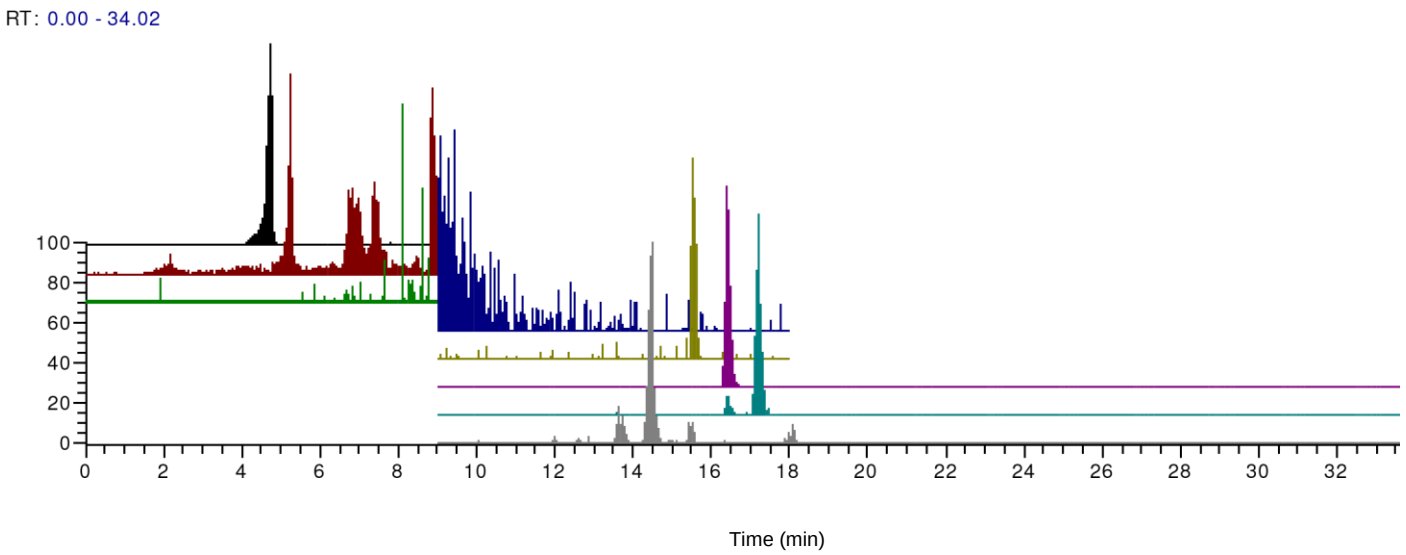
S5 Figure. MRM scanning of different lipid species. Representative MRM chromatograms for each sample is depicted.

MRM Scanning Chromatograms of Sphingosine, Sphingosine-1phosphate and Ceramide species

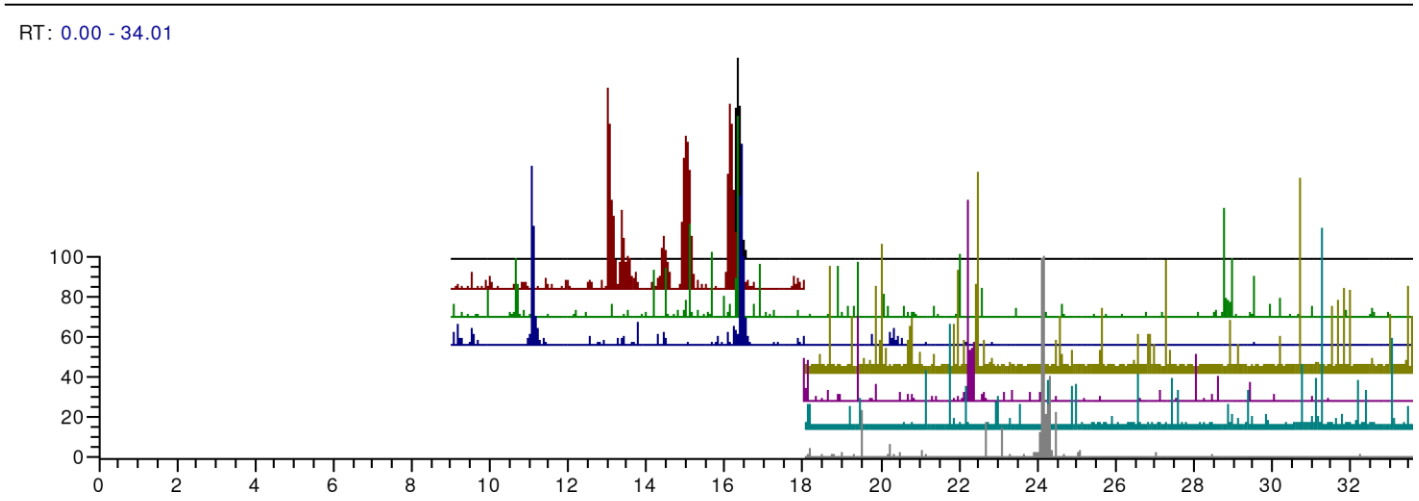
KuWT: Cer

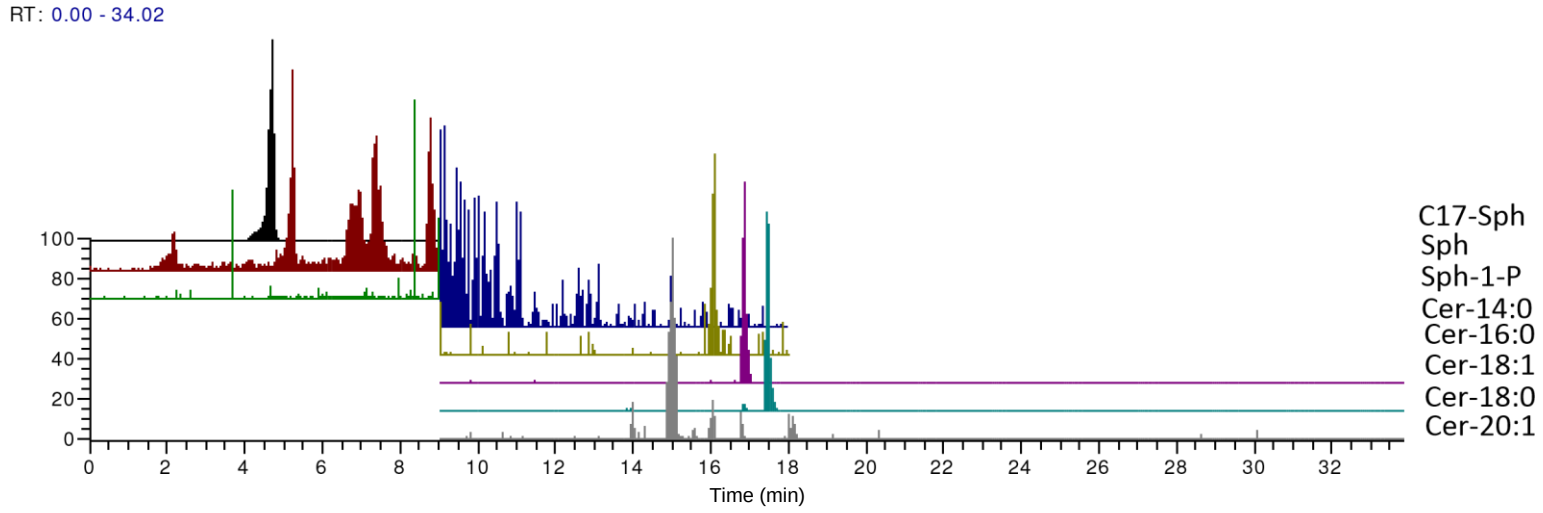

RT: 0.00 - 34.02
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
Time (min)
C17-Sph
Sph
Sph-1-P
Cer-14:0
Cer-16:0
Cer-18:1
Cer-18:0
Cer-20:1
RT: 0.00 - 34.02
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Time (min)
C17-Cer
Cer-20:0
Cer-22:1
Cer-22:0
Cer-24:1
Cer-24:0
Cer-26:1
Cer-26:0

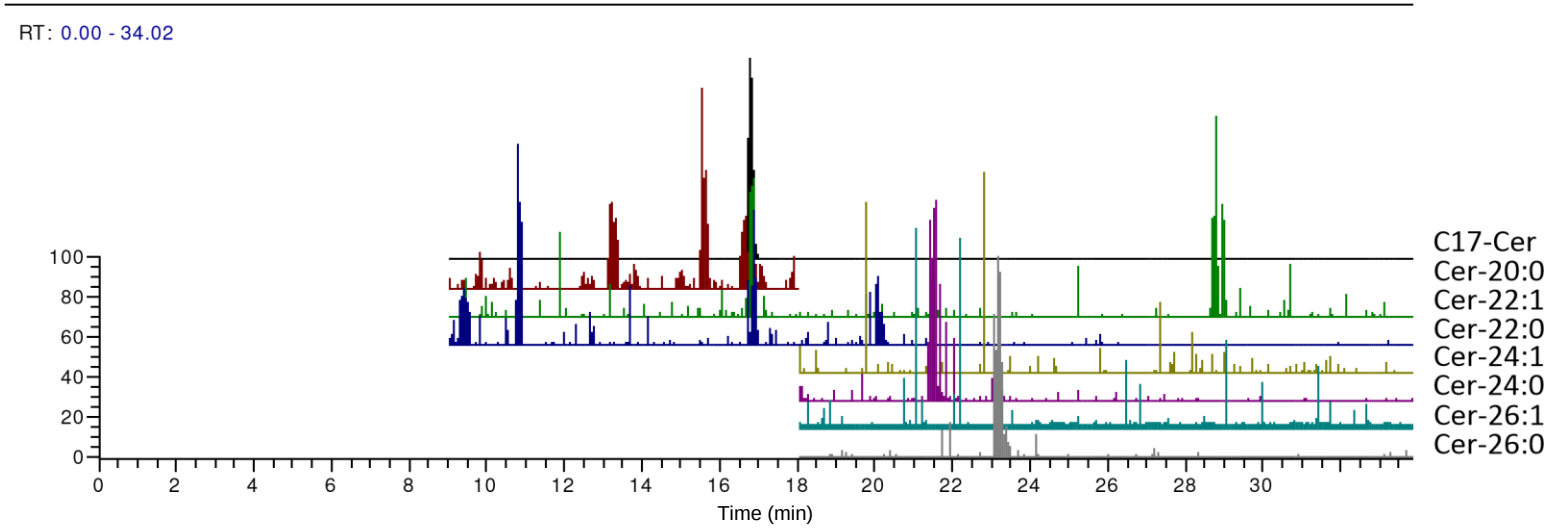
KuWT + 1M Sorbitol: Cer



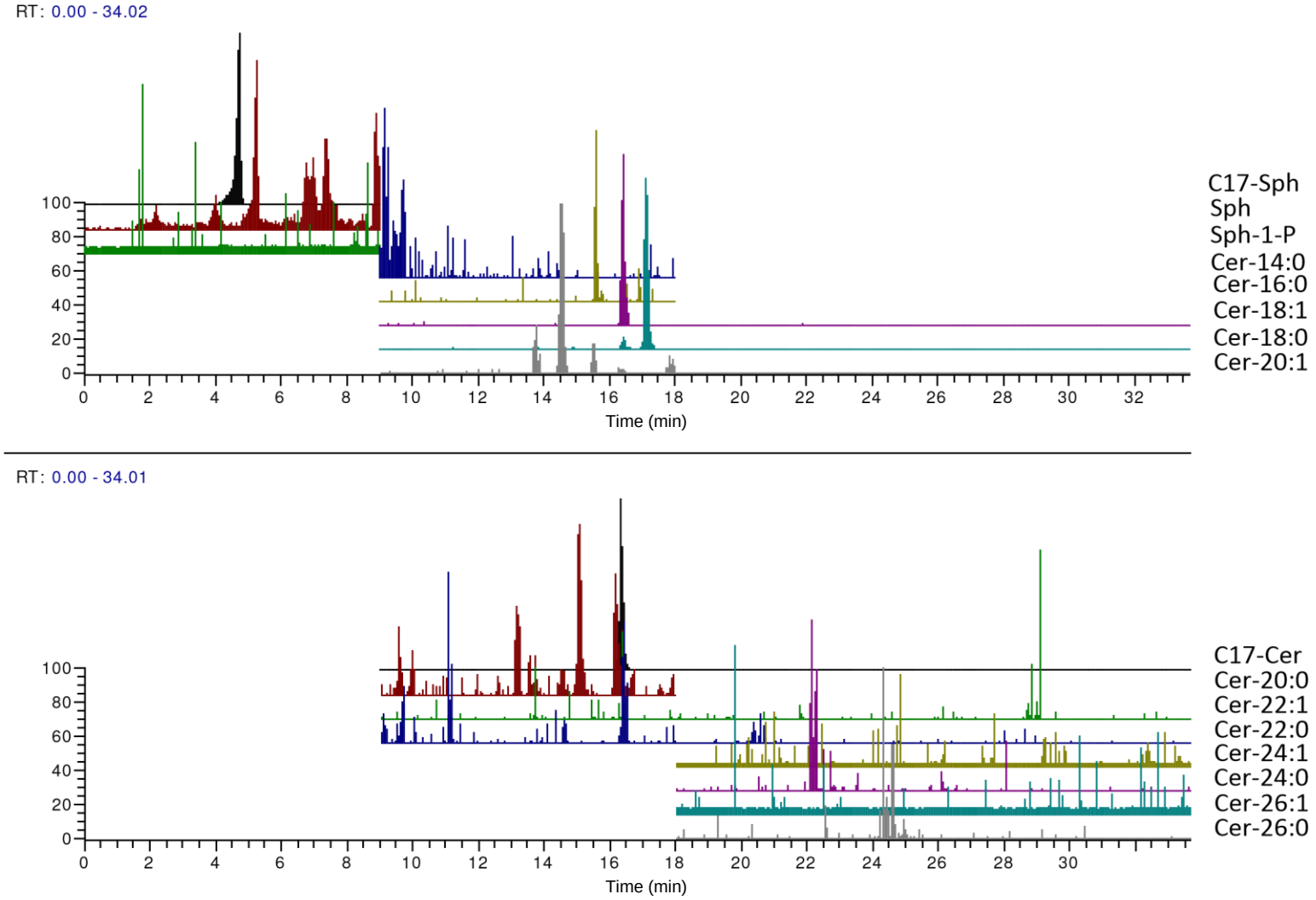
Cer-14:0
Cer-16:0


RT: 0.00 - 34.01
Time
(min)
KuΔschA: Cer


RT: 0.00 - 34.02
C17-Sph
Sph
Sph-1-P
Cer-14:0
Cer-16:0
Cer-18:1
Cer-18:0
Cer-20:1
Time (min)

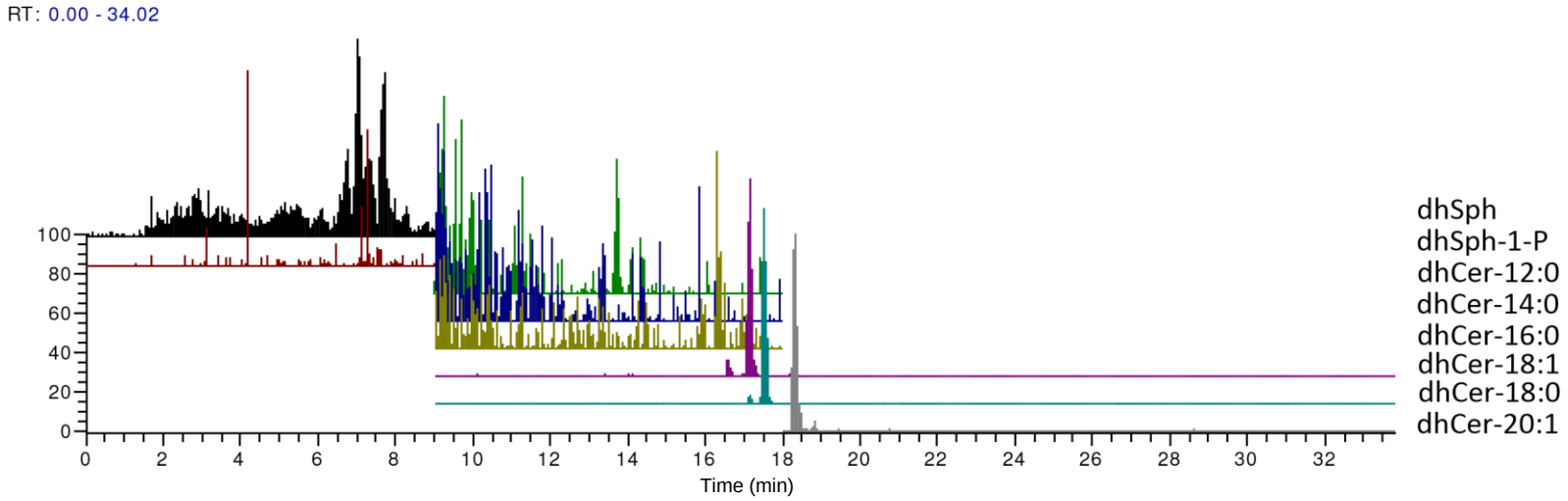


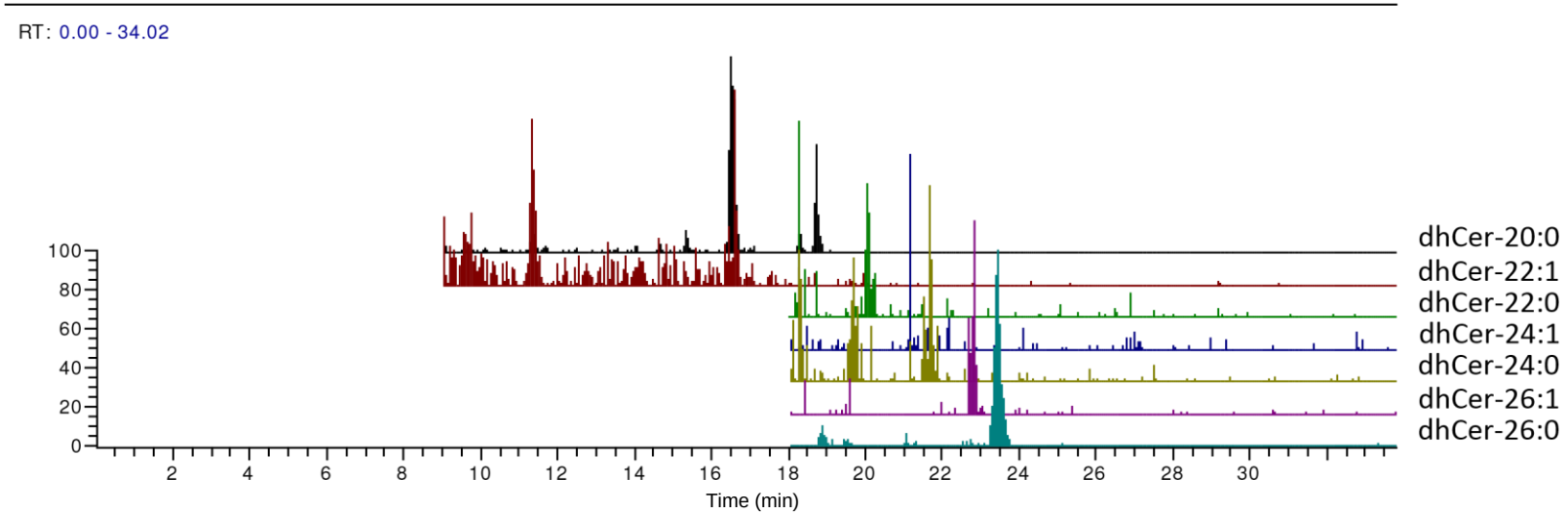
KuΔschA + 1M Sorbitol: Cer


RT: 0.00 - 34.02
C17-Sph
Sph
Sph-1-P
Cer-14:0
Cer-16:0
Cer-18:1
Cer-18:0
Cer-20:1
Time (min)
RT: 0.00 - 34.01
C17-Cer
Cer-20:0
Cer-22:1
Cer-22:0
Cer-24:1
Cer-24:0
Cer-26:1
Cer-26:0
Time (min)

MRM Scanning Chromatograms of Dihydrosphingosine, Dihydrosphingosine-1-phosphate and Dihydroceramide species

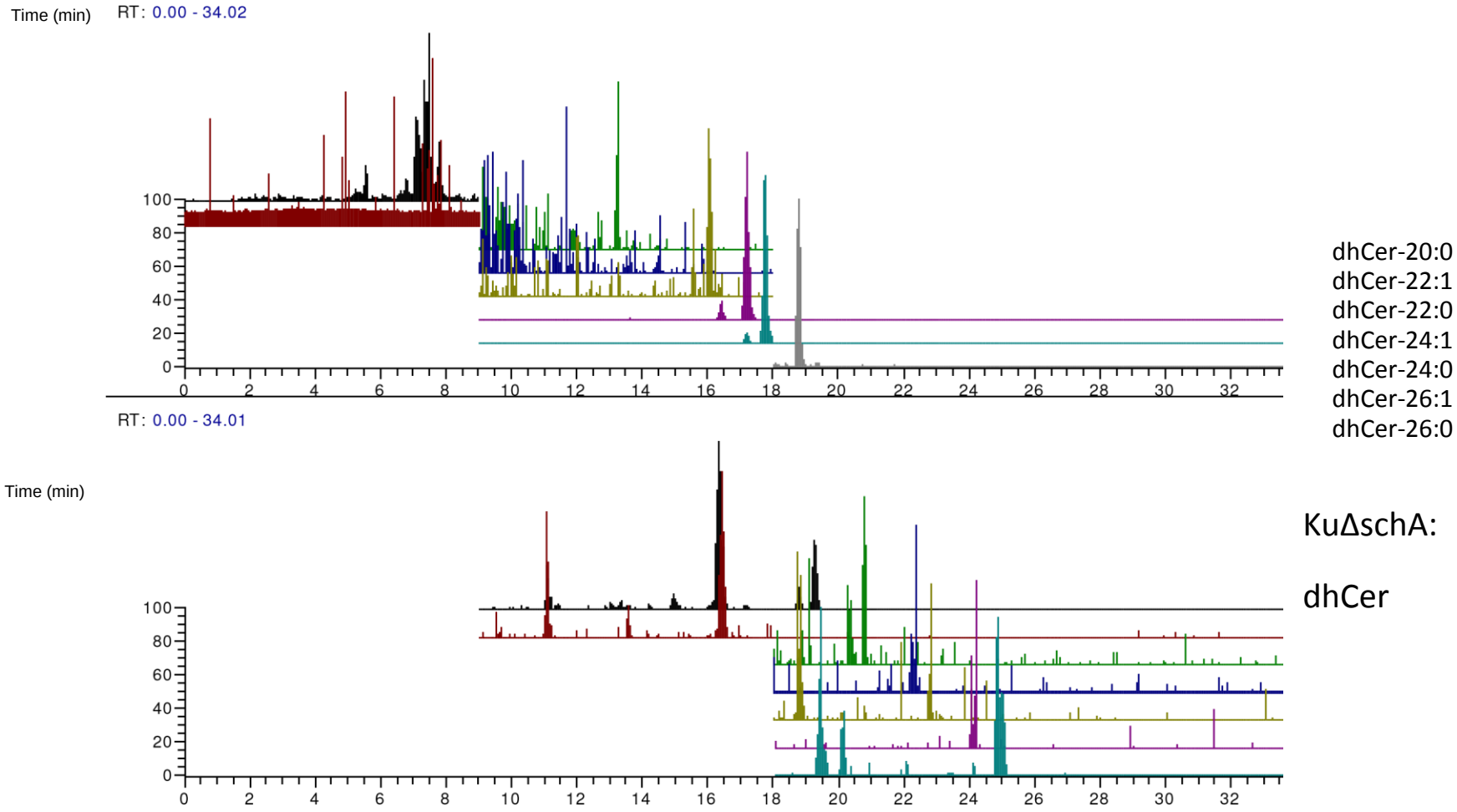
KuWT: dhCer

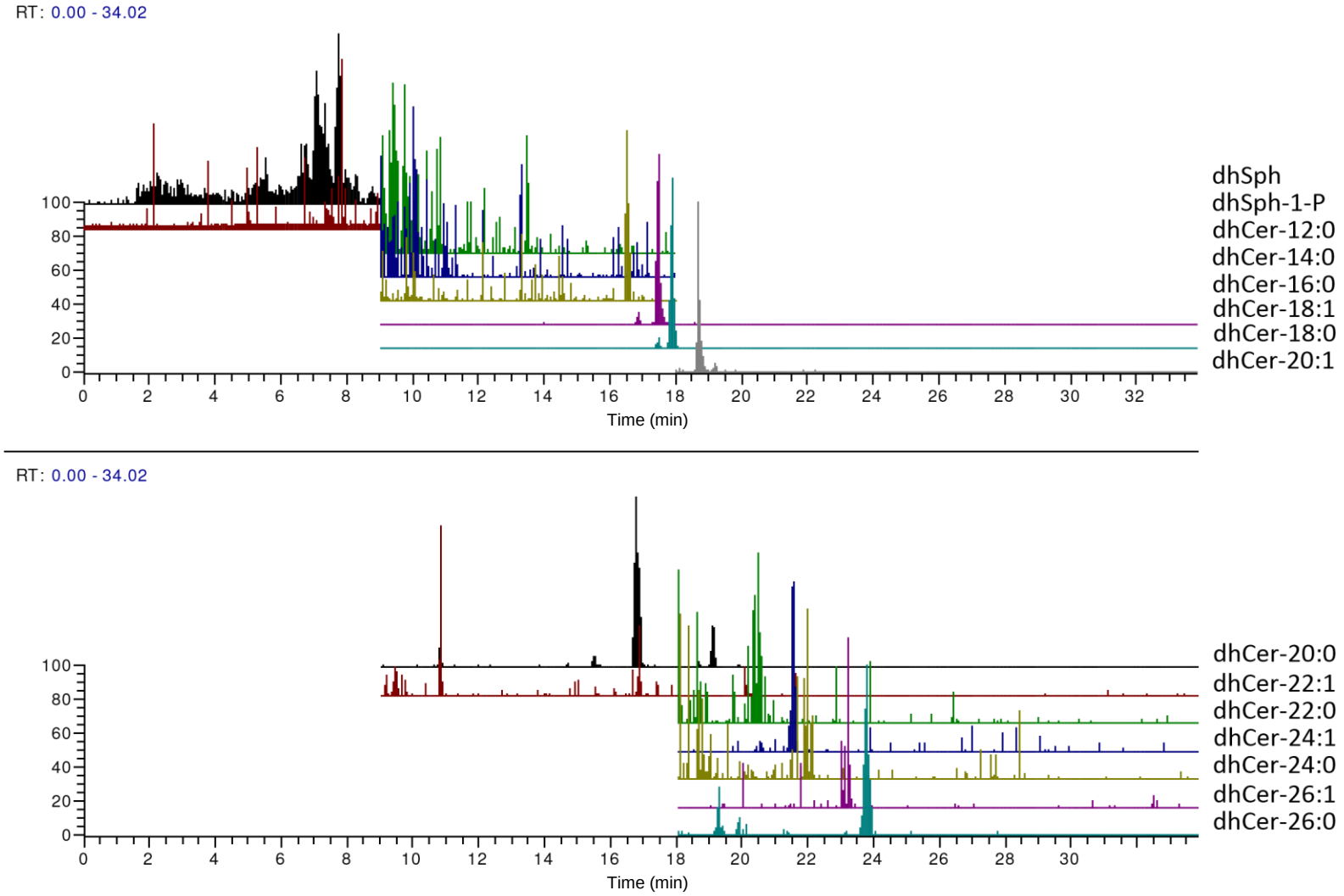




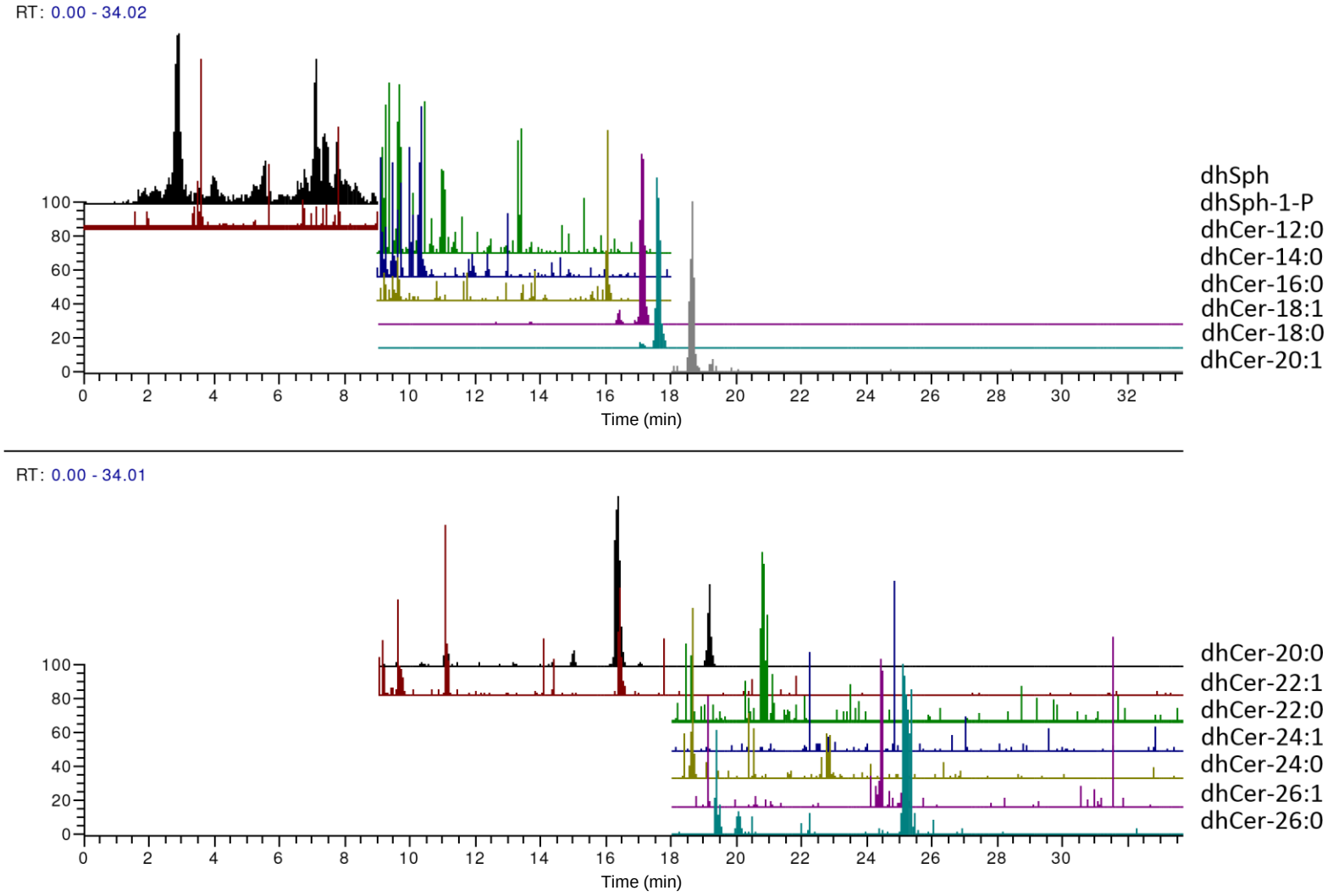
KuWT + 1M Sorbitol: dhCer

dhSph dhSph-1-P dhCer-12:0 dhCer-14:0 dhCer-16:0 dhCer-18:1 dhCer-18:0 dhCer-20:1


Time (min)
RT: 0.00 - 34.02
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
RT: 0.00 - 34.01
Time (min)
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
dhCer-20:0
dhCer-22:1
dhCer-22:0
dhCer-24:1
dhCer-24:0
dhCer-26:1
dhCer-26:0
KuΔschA:
dhCer



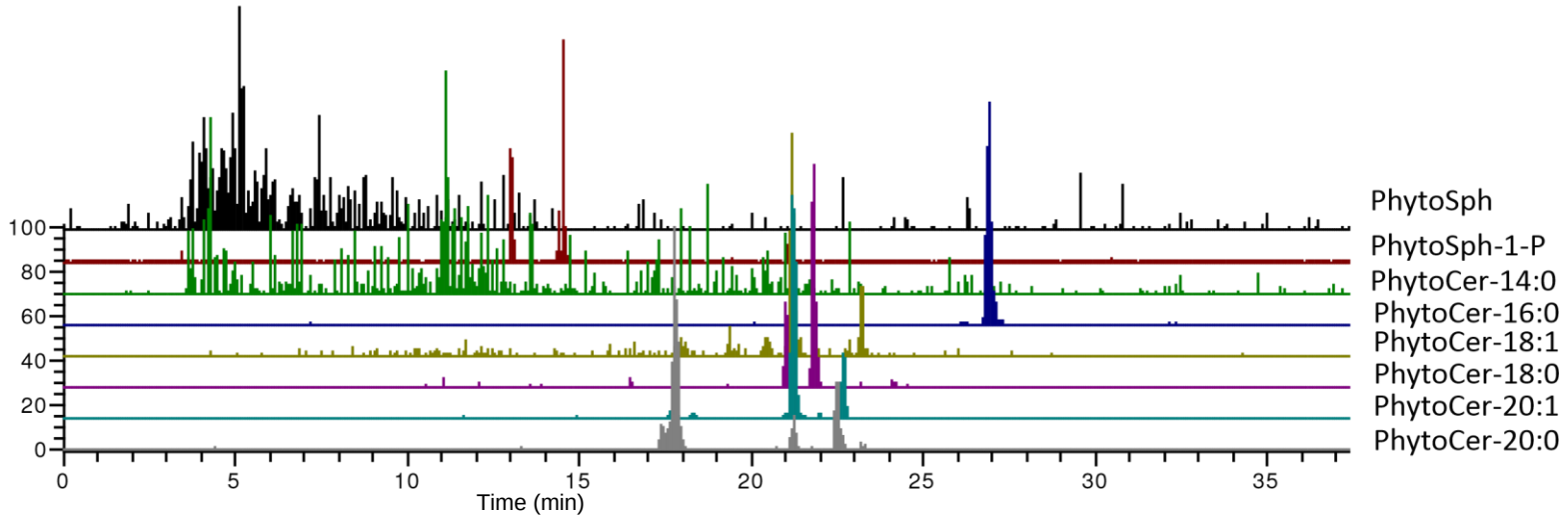
KuΔschA + 1M Sorbitol: dhCer

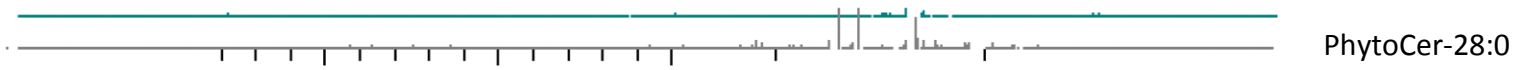

RT: 0.00 - 34.02
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
Time (min)
dhSph
dhSph-1-P
dhCer-12:0
dhCer-14:0
dhCer-16:0
dhCer-18:1
dhCer-18:0
dhCer-20:1
RT: 0.00 - 34.01
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Time (min)
dhCer-20:0
dhCer-22:1
dhCer-22:0
dhCer-24:1
dhCer-24:0
dhCer-26:1
dhCer-26:0

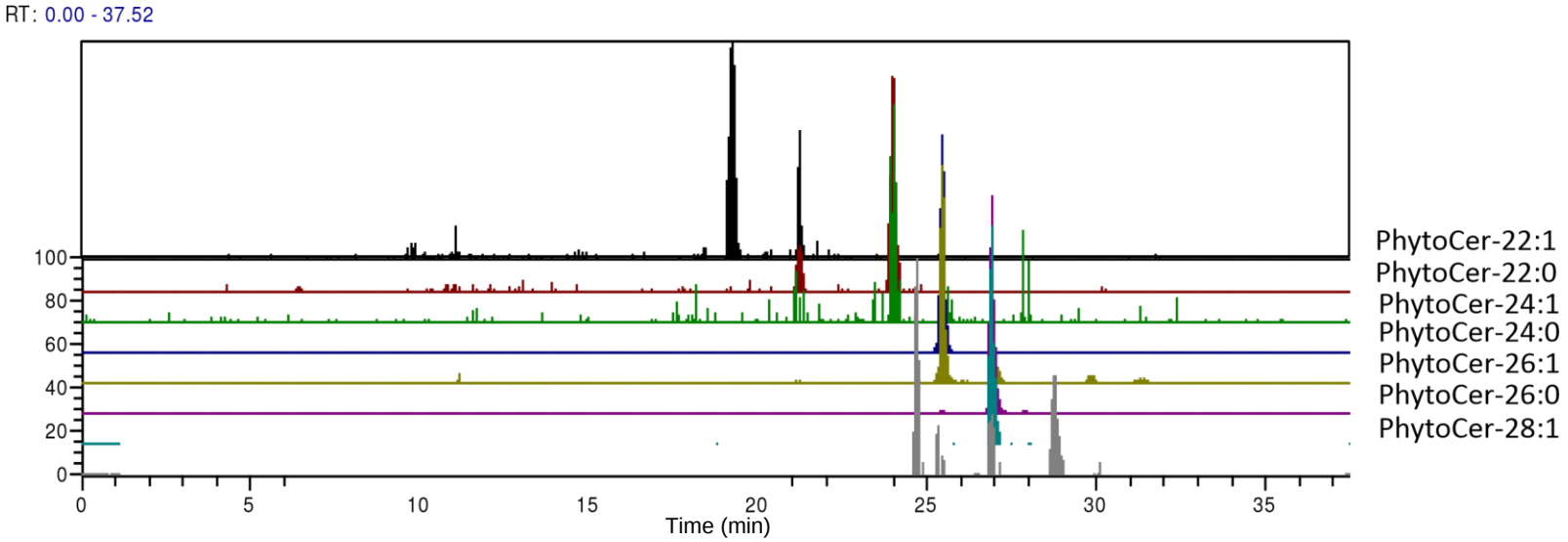
MRM Scanning Chromatograms of Phytoceramide species

KuWT: PhytoCer

RT: 0.00 - 37.52

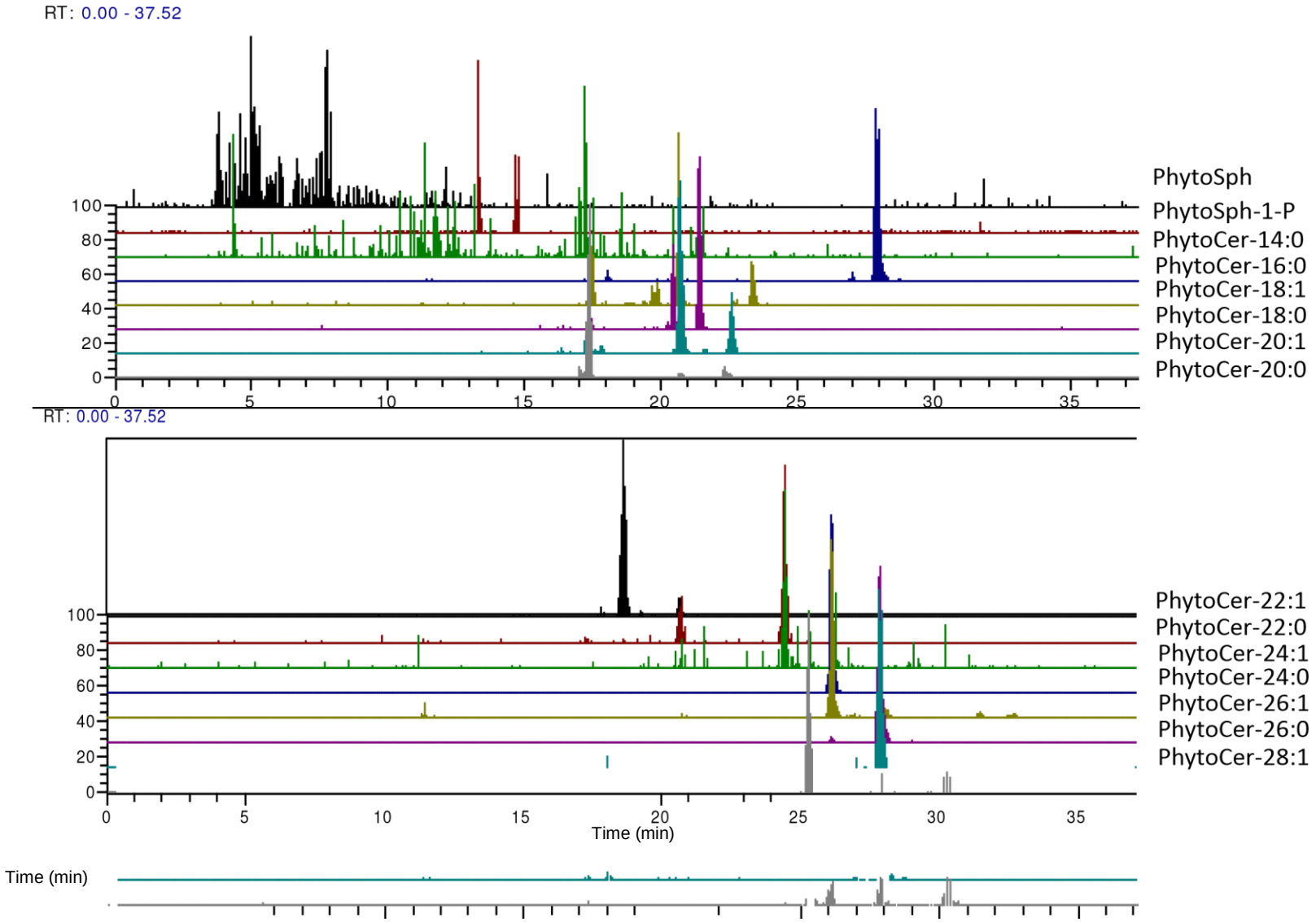




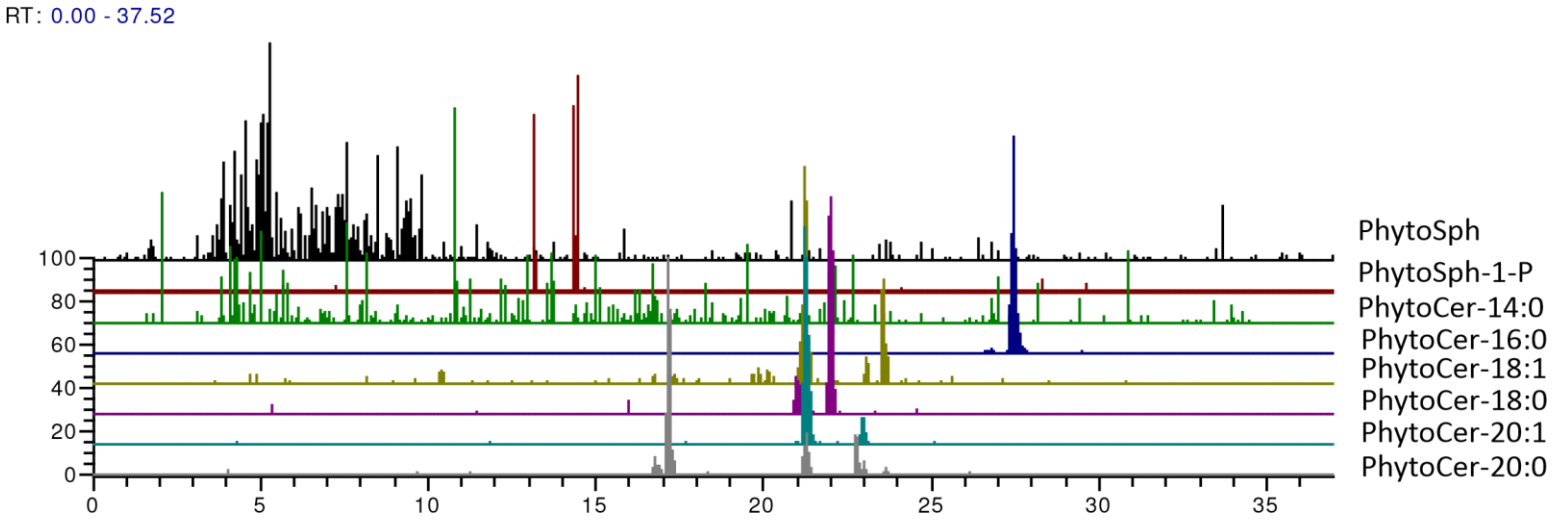


KuWT + 1M Sorbitol: PhytoCer

PhytoCer-28:0



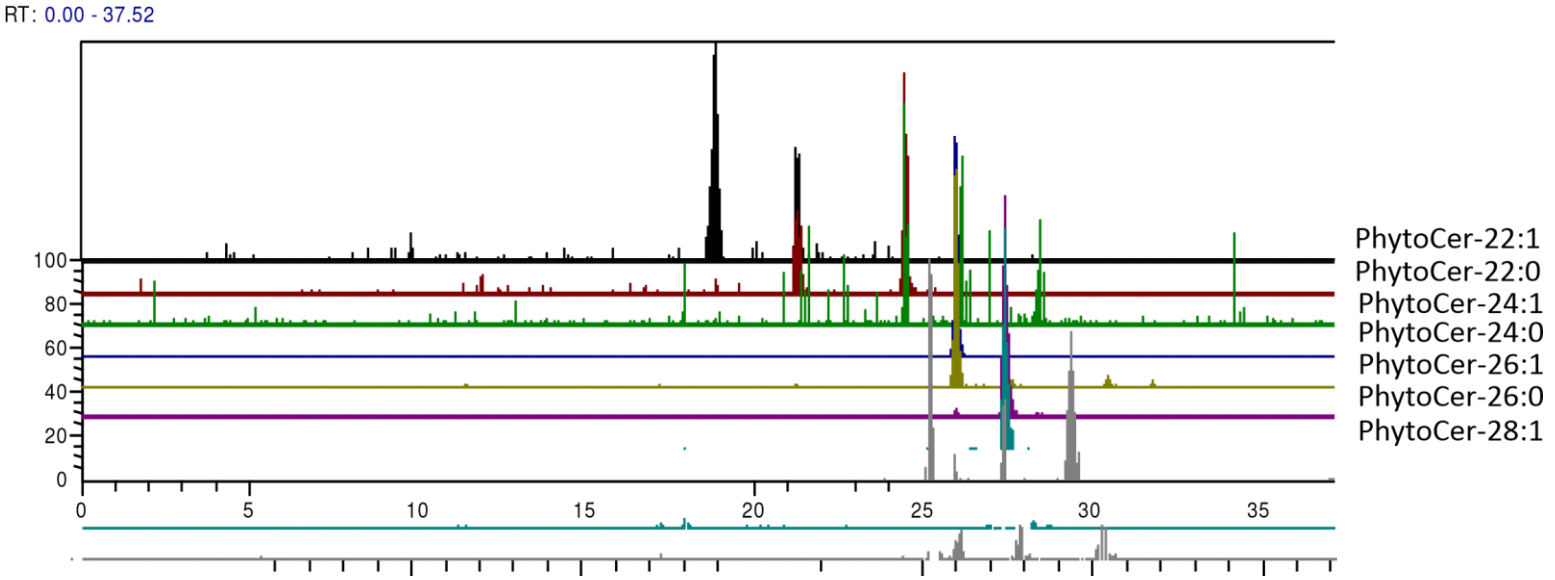
PhytoCer-28:0



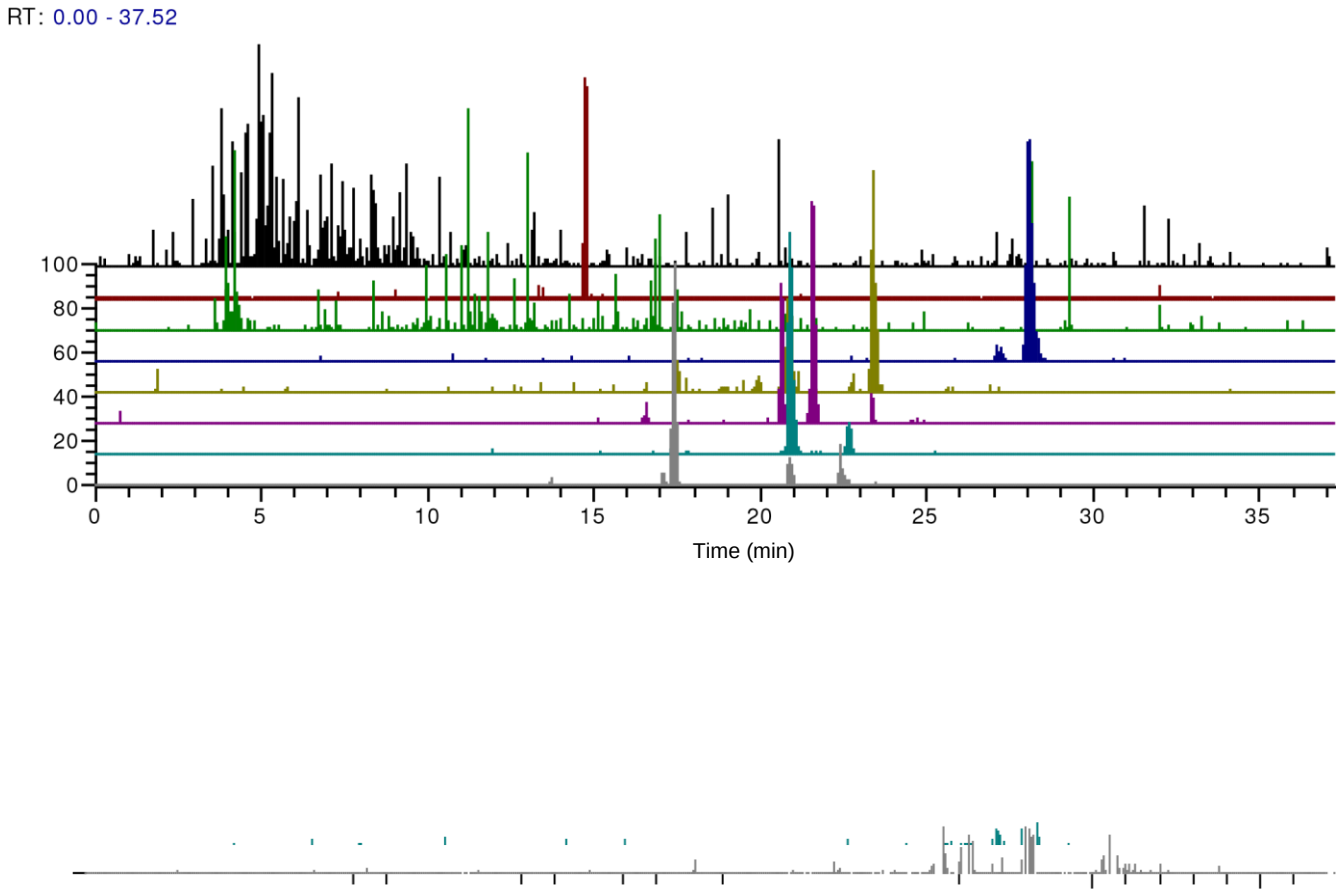
KuΔschA: PhytoCer

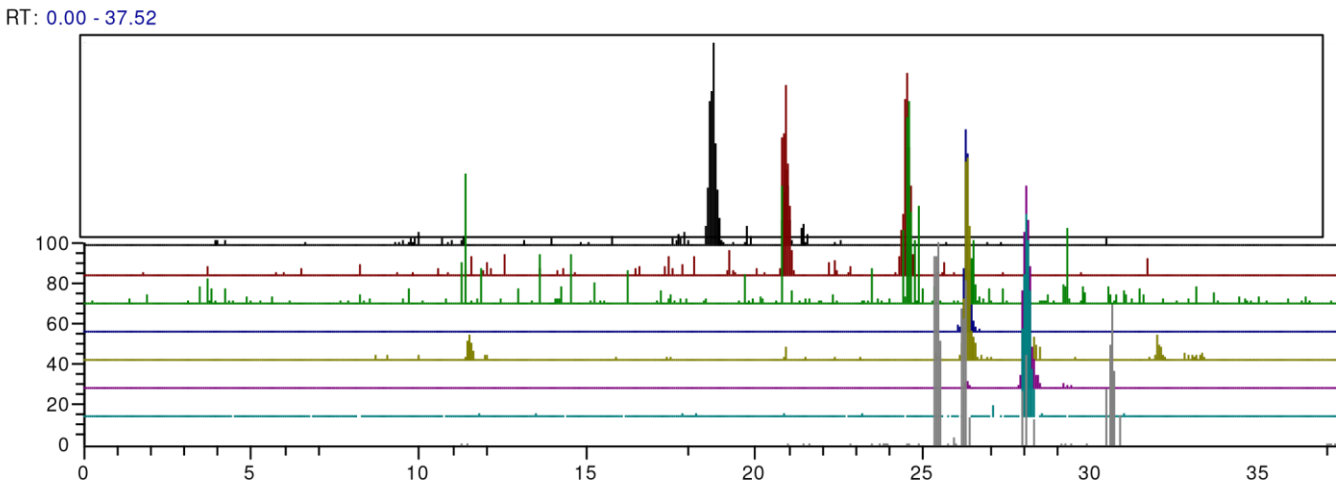
PhytoCer-28:0

Time (min)


RT: 0.00 - 37.52
100
80
60
40
20
0
0
5
10
15
20
25
30
35
PhytoCer-22:1
PhytoCer-22:0
PhytoCer-24:1
PhytoCer-24:0
PhytoCer-26:1
PhytoCer-26:0
PhytoCer-28:1
PhytoCer-28:0

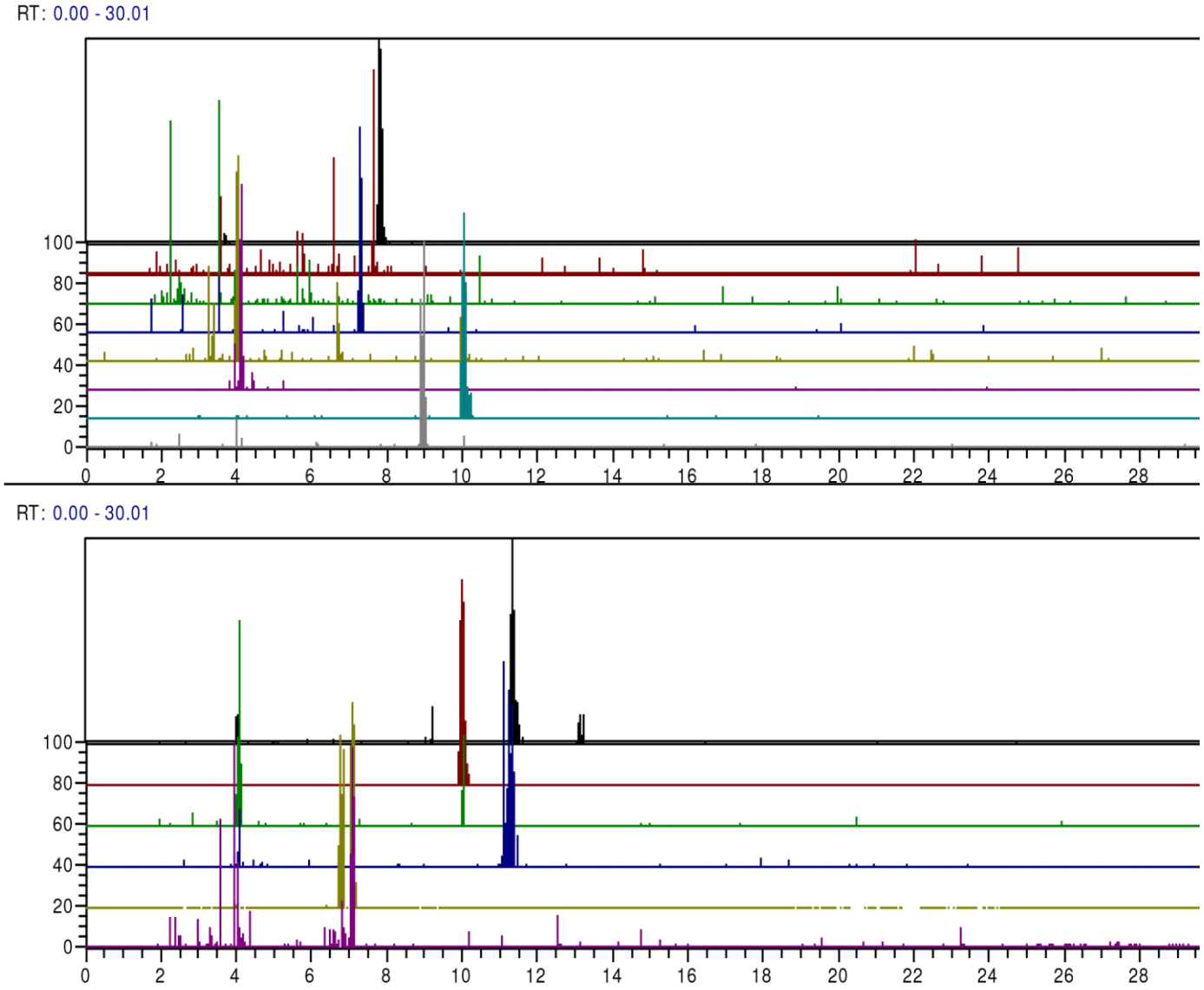
KuΔschA + 1M Sorbitol: PhytoCer



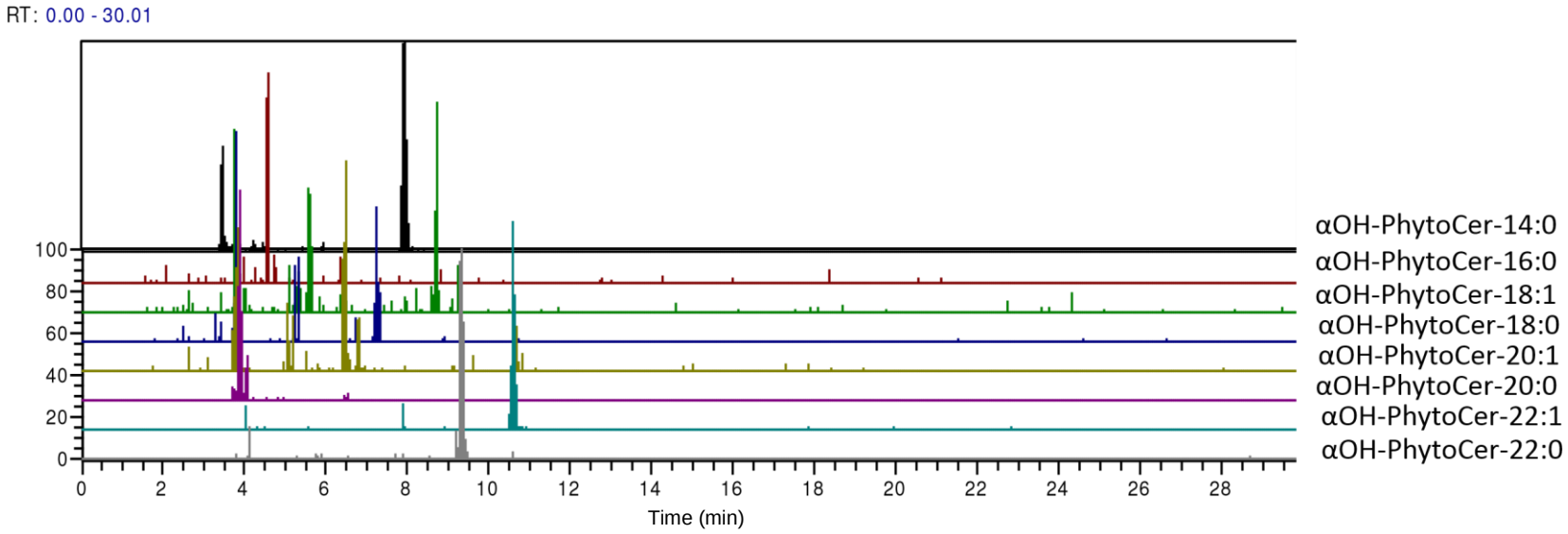


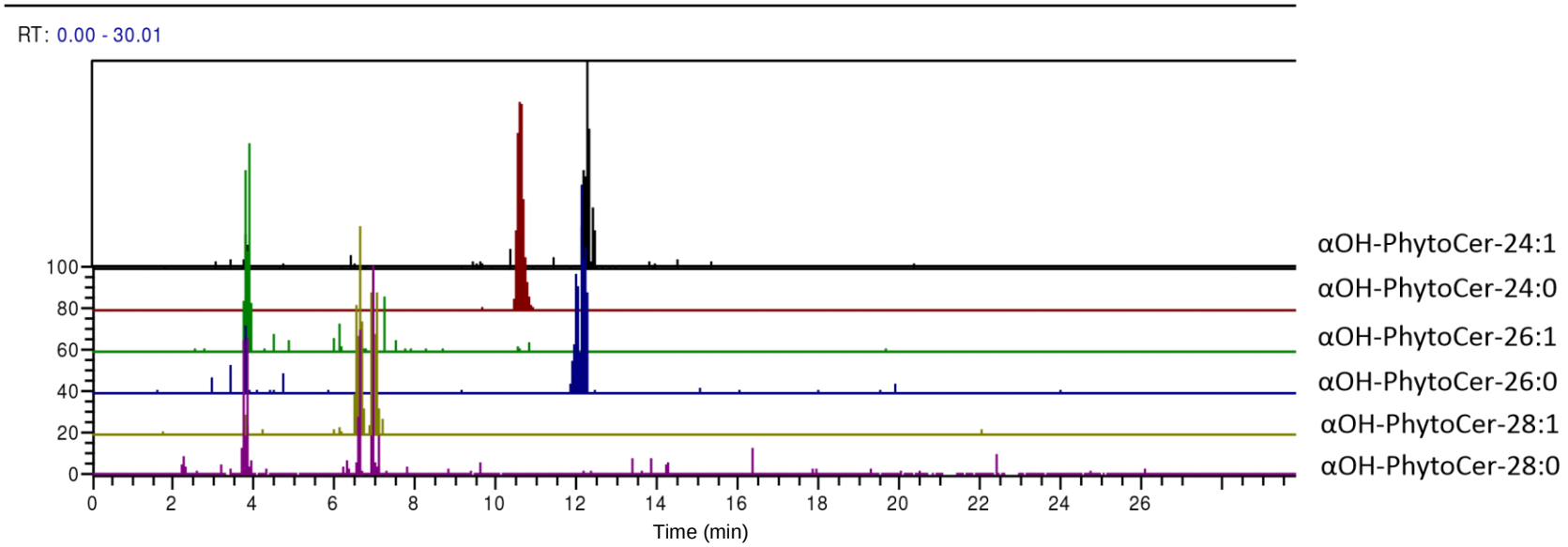
MRM Scanning

Chromatograms of αOH-Phytoceramide species

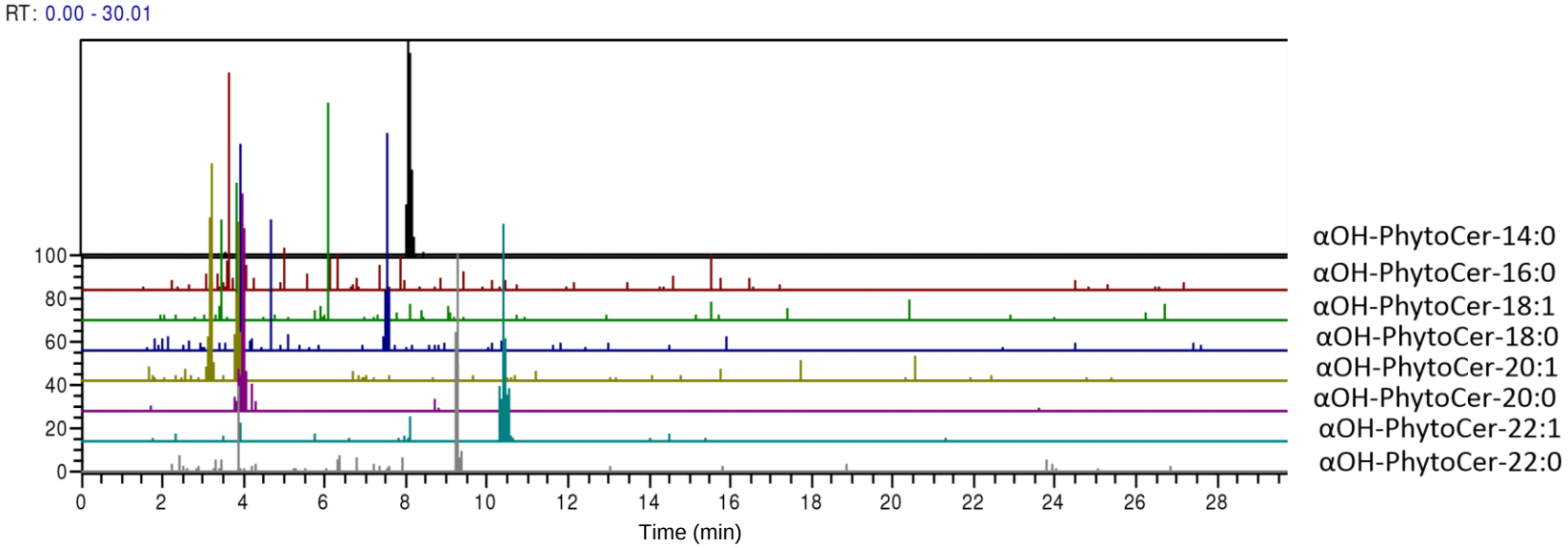

RT: 0.00 - 30.01
KuWT: αOH-
PhytoCer
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Cer-20:1
Time
(min)
RT: 0.00 - 30.01
100
80
60
40
20
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Cer-28:1
αOH-PhytoCer-28:0
Time
(min)

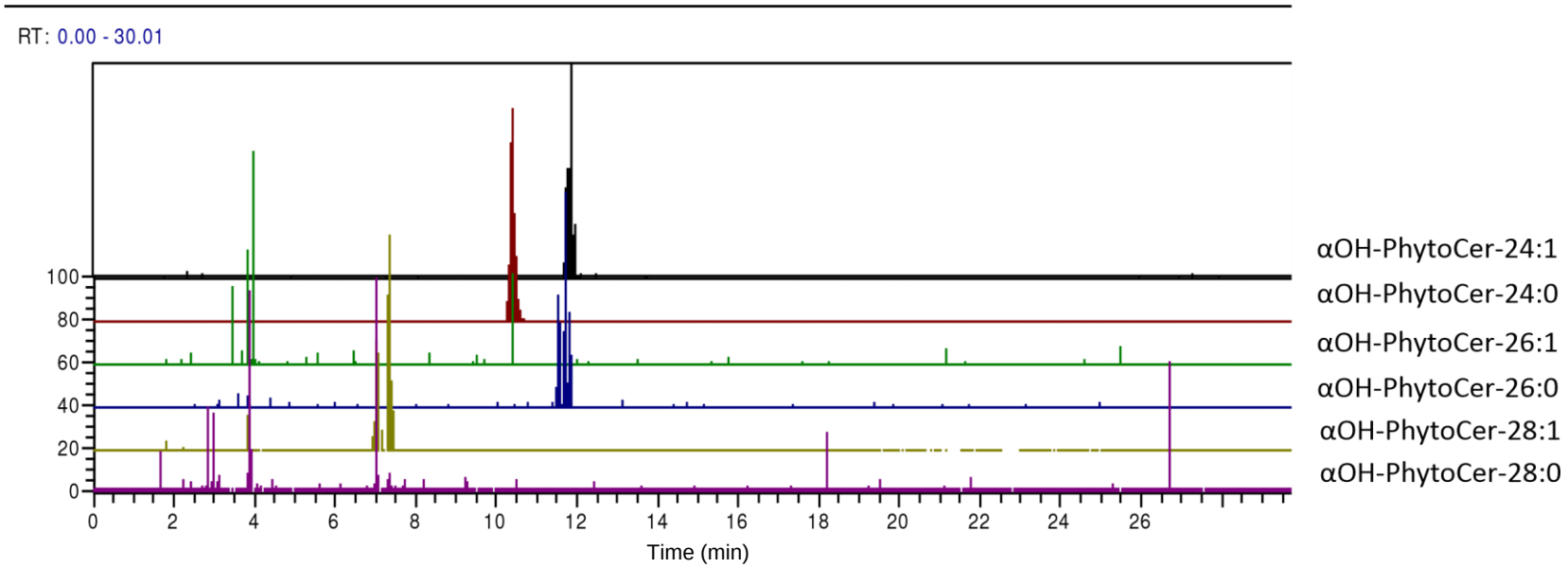
KuWT + 1M Sorbitol: αOH-PhytoCer





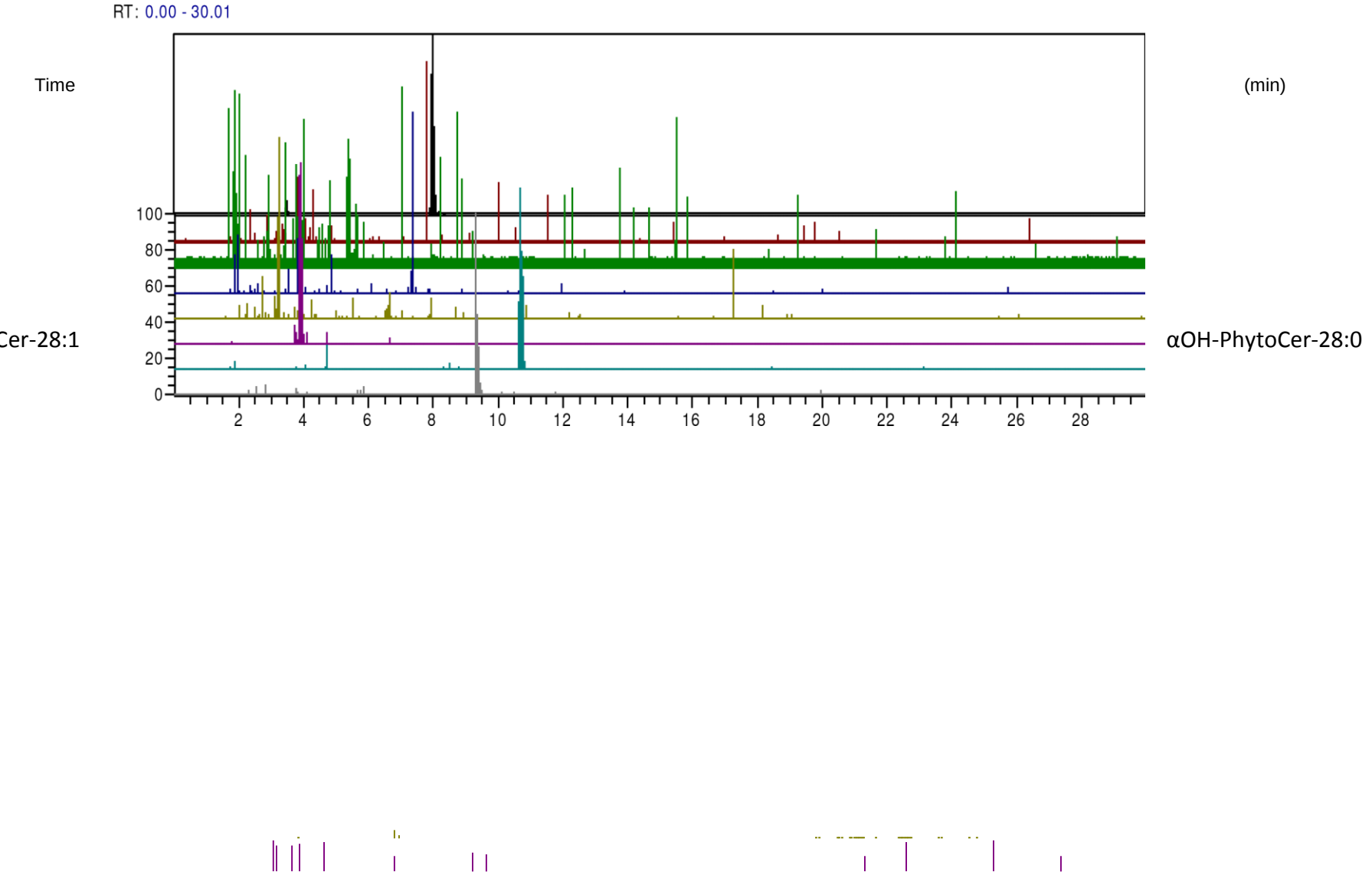
KuΔschA: αOH-PhytoCer


RT: 0.00 - 30.01
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
Time (min)
αOH-PhytoCer-14:0
αOH-PhytoCer-16:0
αOH-PhytoCer-18:1
αOH-PhytoCer-18:0
αOH-PhytoCer-20:1
αOH-PhytoCer-20:0
αOH-PhytoCer-22:1
αOH-PhytoCer-22:0

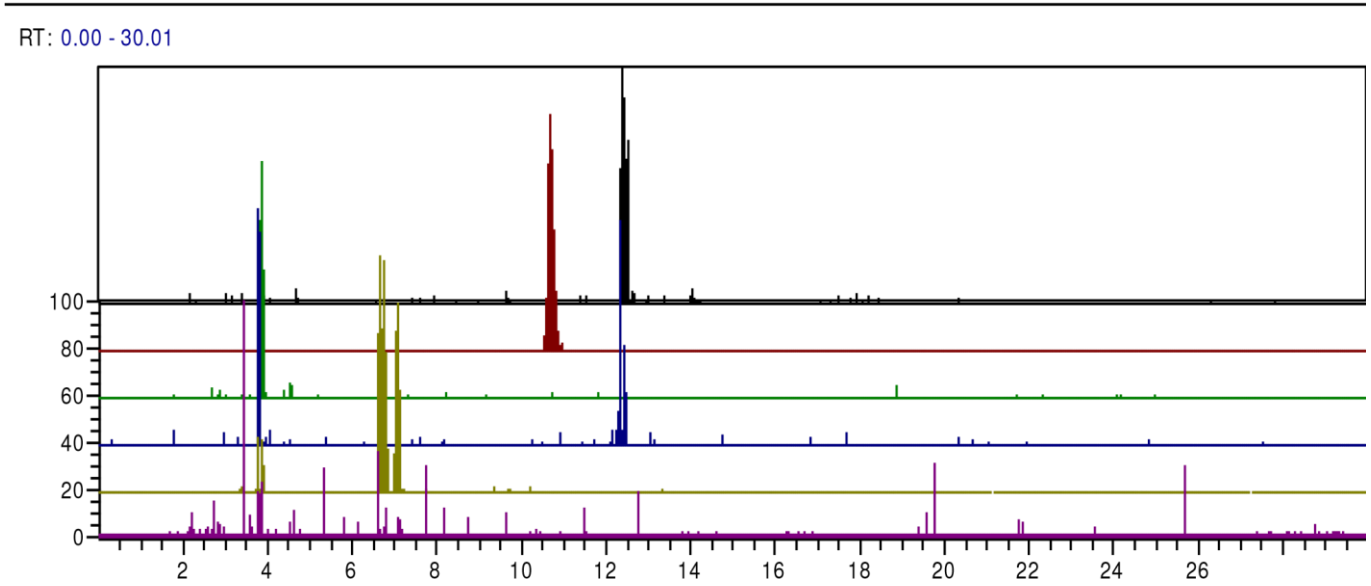


KuΔschA + 1M Sorbitol: αOH-PhytoCer

ytoCer-16:0 αOH-PhytoCer-18:1 αOH-PhytoCer-18:0 αOH-PhytoCer-20:1


RT: 0.00 - 30.01
Time
(min)
100
80
60
40
20
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
Cer-28:1
αOH-PhytoCer-28:0

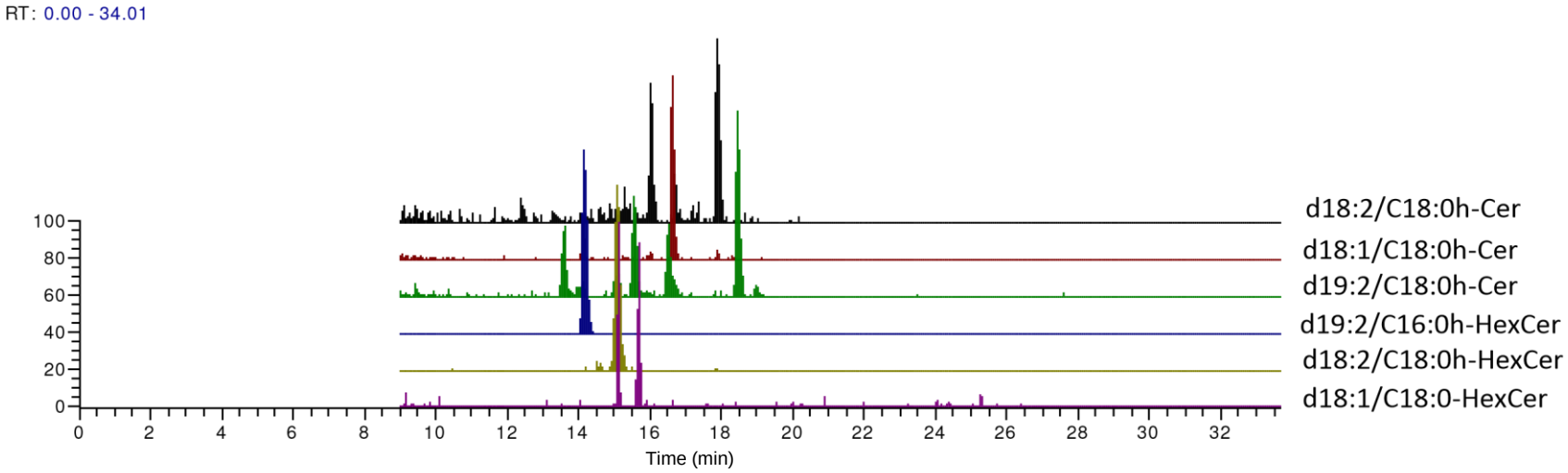
Time

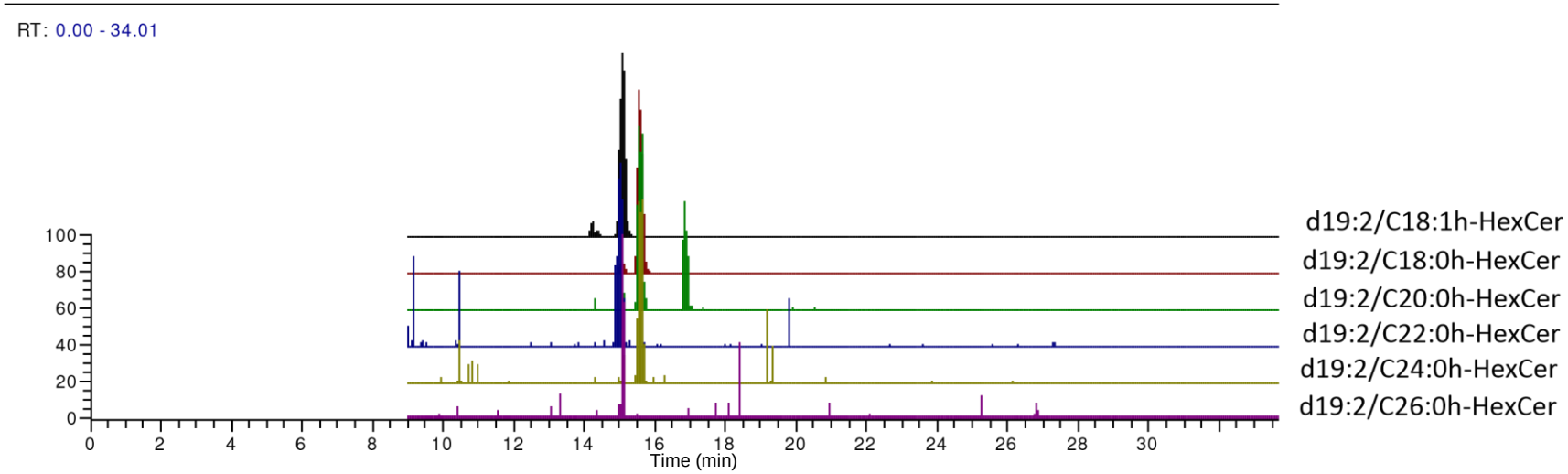


(min)

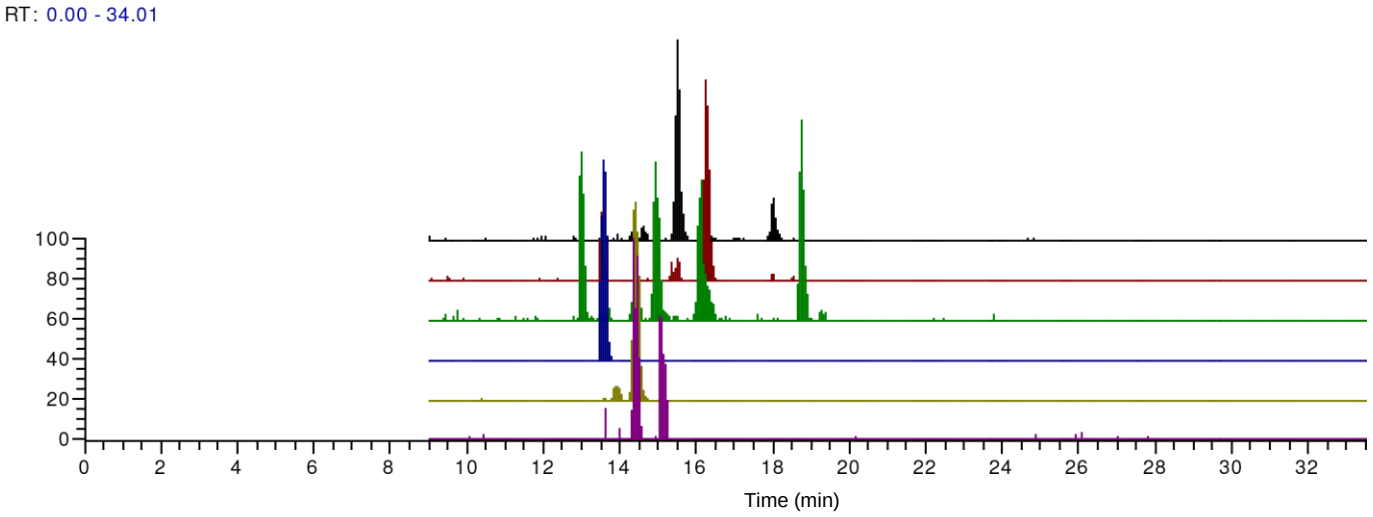
MRM Scanning Chromatograms of αOH-Ceramide and Hexosylceramide species

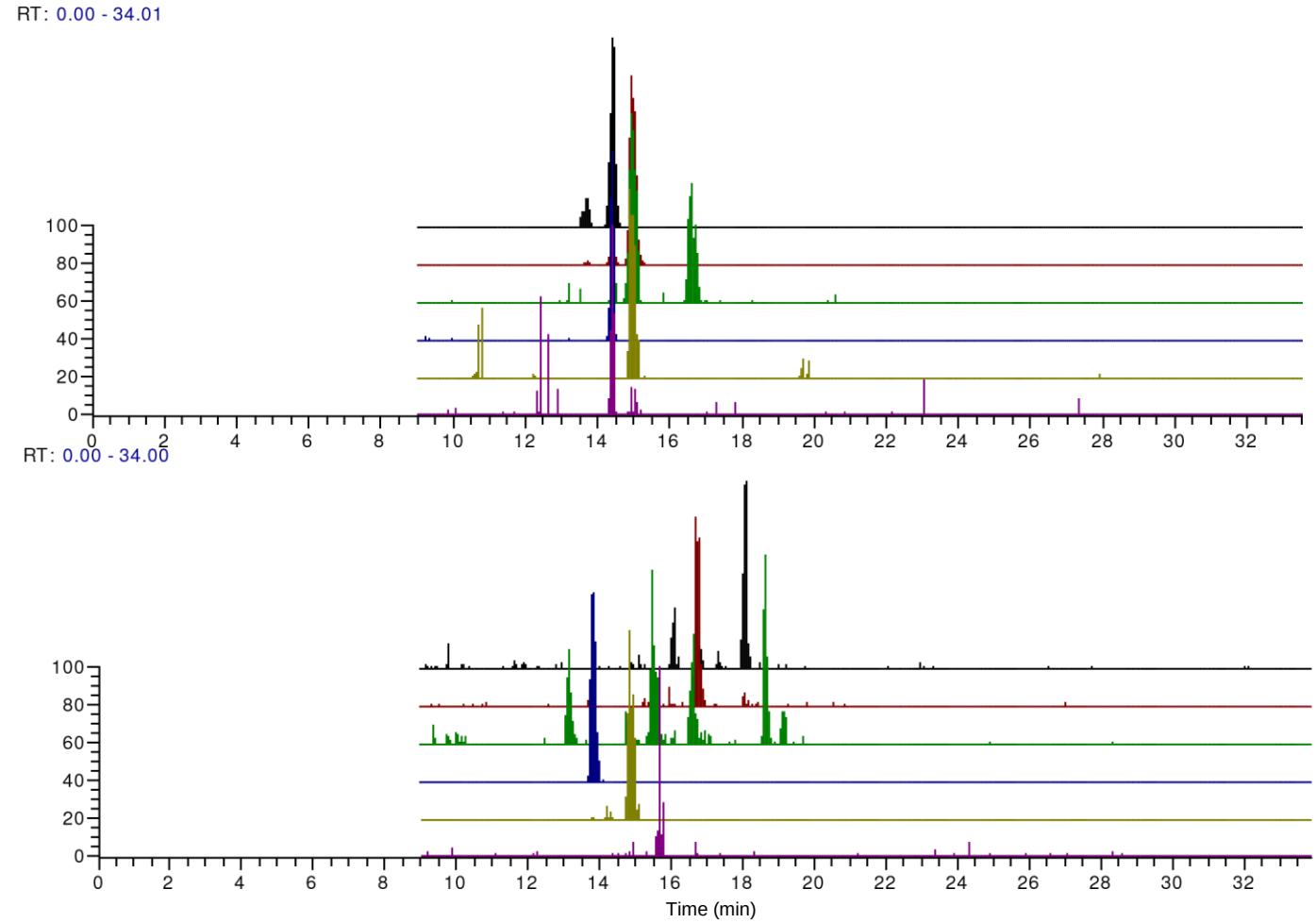
KuWT: OHCer/HexCer





KuWT + 1M Sorbitol: OHCer/HexCer

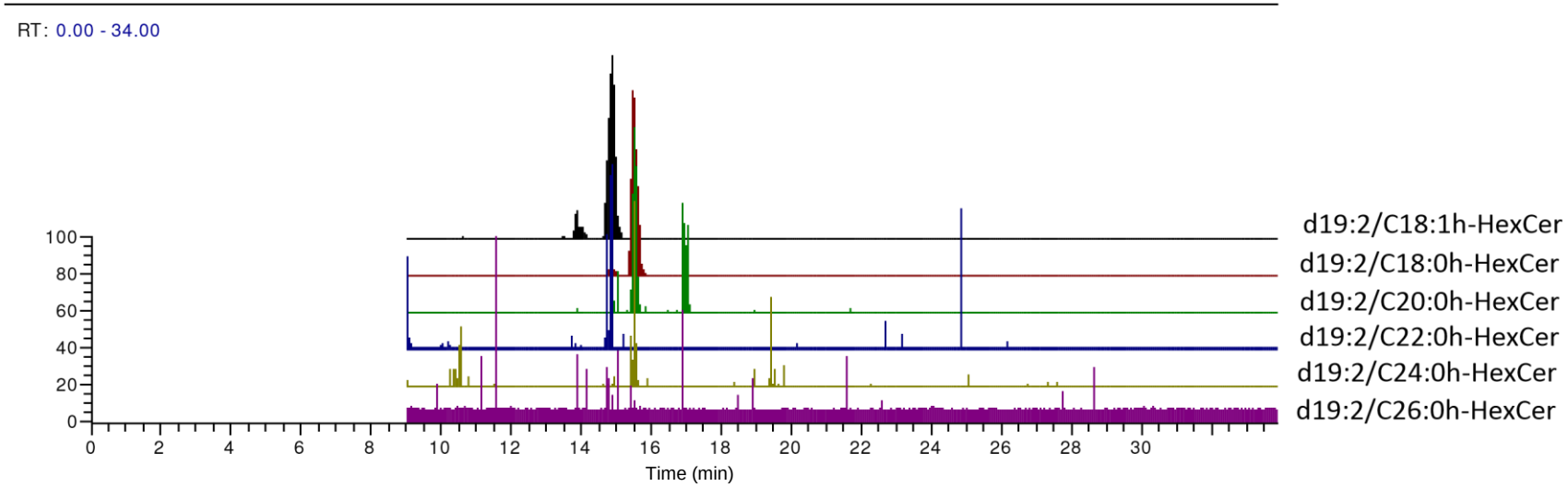




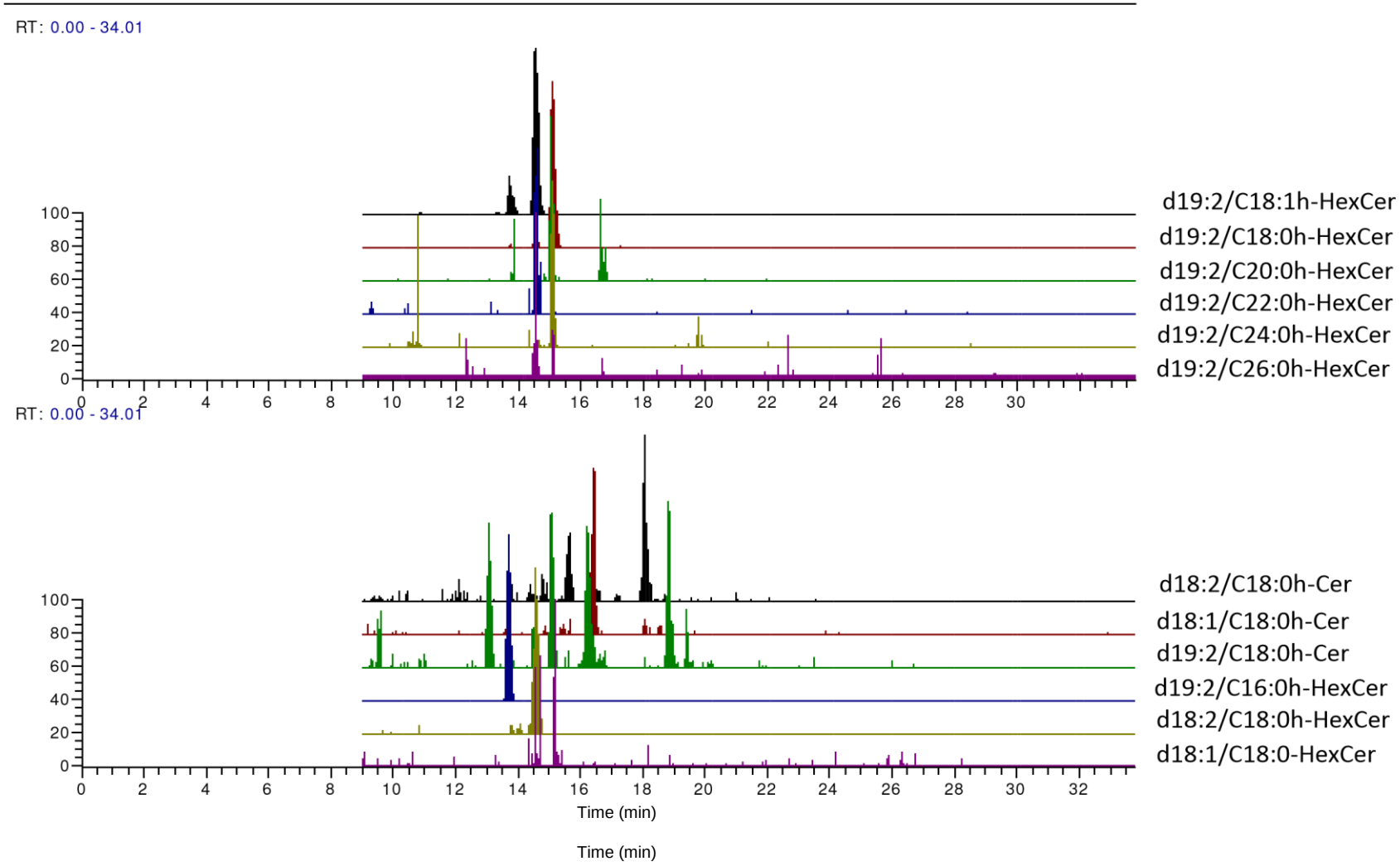
Time (min)

KuΔschA:

OHCer/HexCer

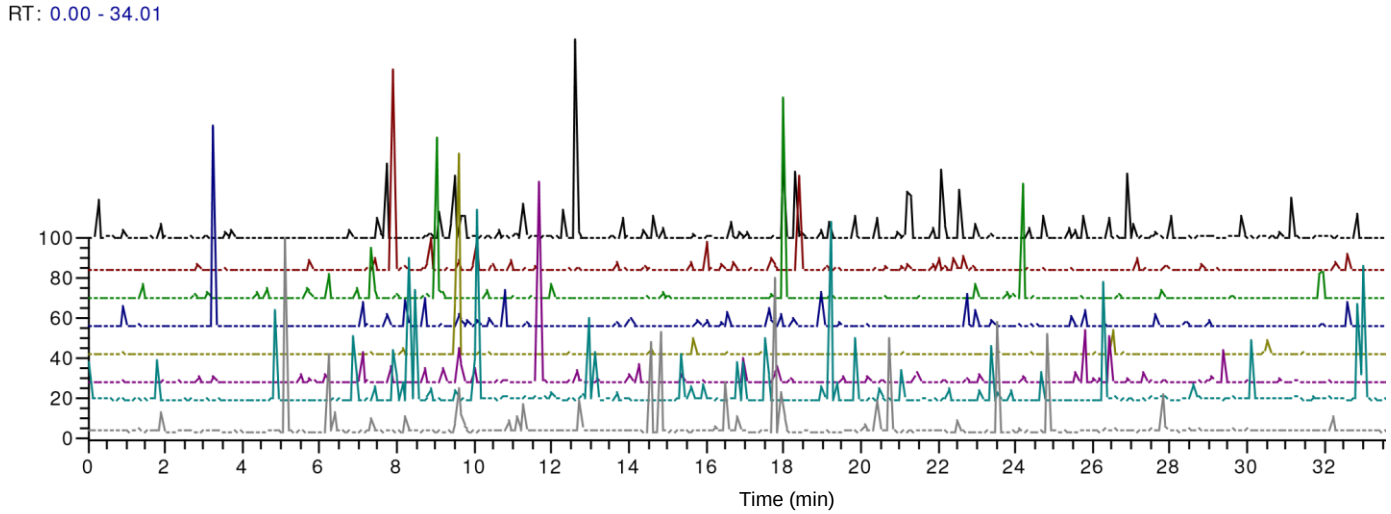


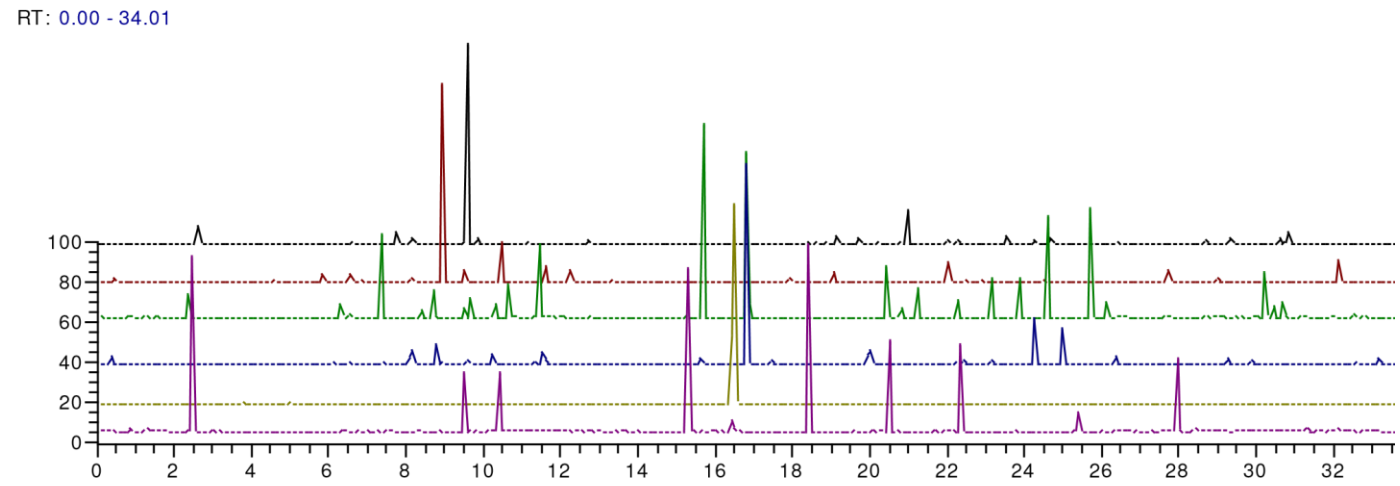
KuΔschA + 1M Sorbitol: OHCer/HexCer


RT: 0.00 - 34.01
d19:2/C18:1h-HexCer
d19:2/C18:0h-HexCer
d19:2/C20:0h-HexCer
d19:2/C22:0h-HexCer
d19:2/C24:0h-HexCer
d19:2/C26:0h-HexCer
RT: 0.00 - 34.01
d18:2/C18:0h-Cer
d18:1/C18:0h-Cer
d19:2/C18:0h-Cer
d19:2/C16:0h-HexCer
d18:2/C18:0h-HexCer
d18:1/C18:0-HexCer
Time (min)
Time (min)

MRM Scanning Chromatograms of Inositolphosphorylceramide species

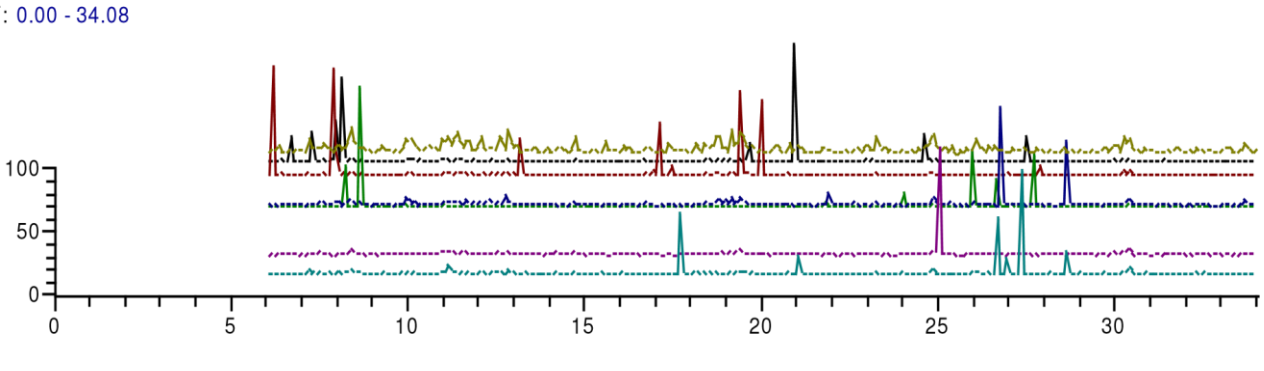
KuWT: IPC1




RT: 0.00 - 34.01
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32

Time (min)

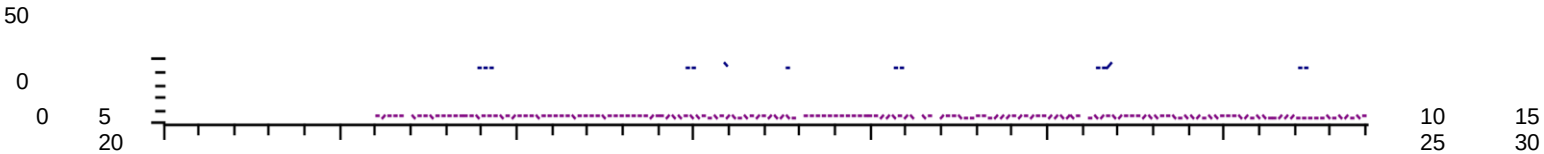
KuWT: IPC2



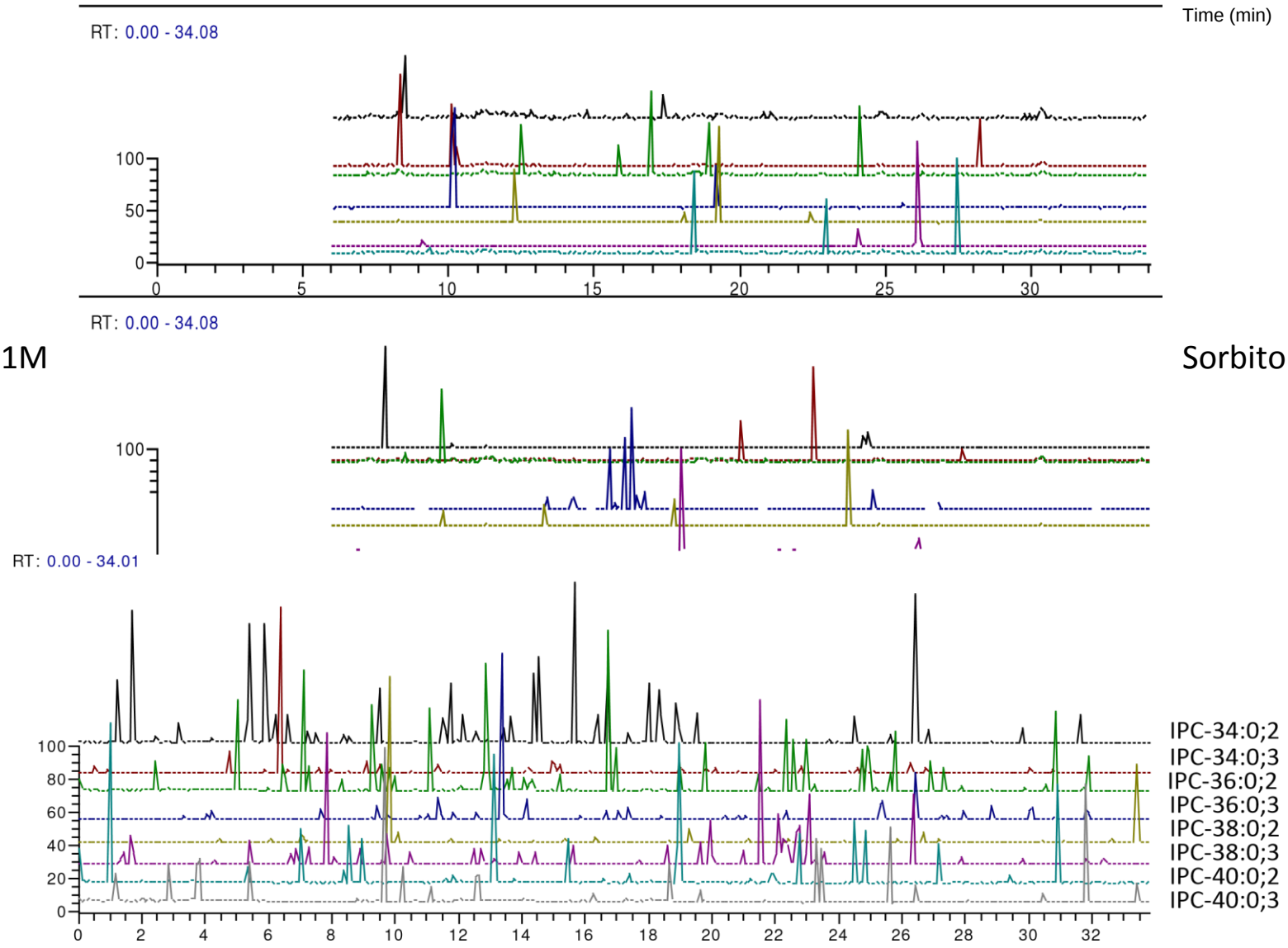
IPC-40:0;4

Time (min)

IPC-42:0;4-B IPC-42:0;5-A

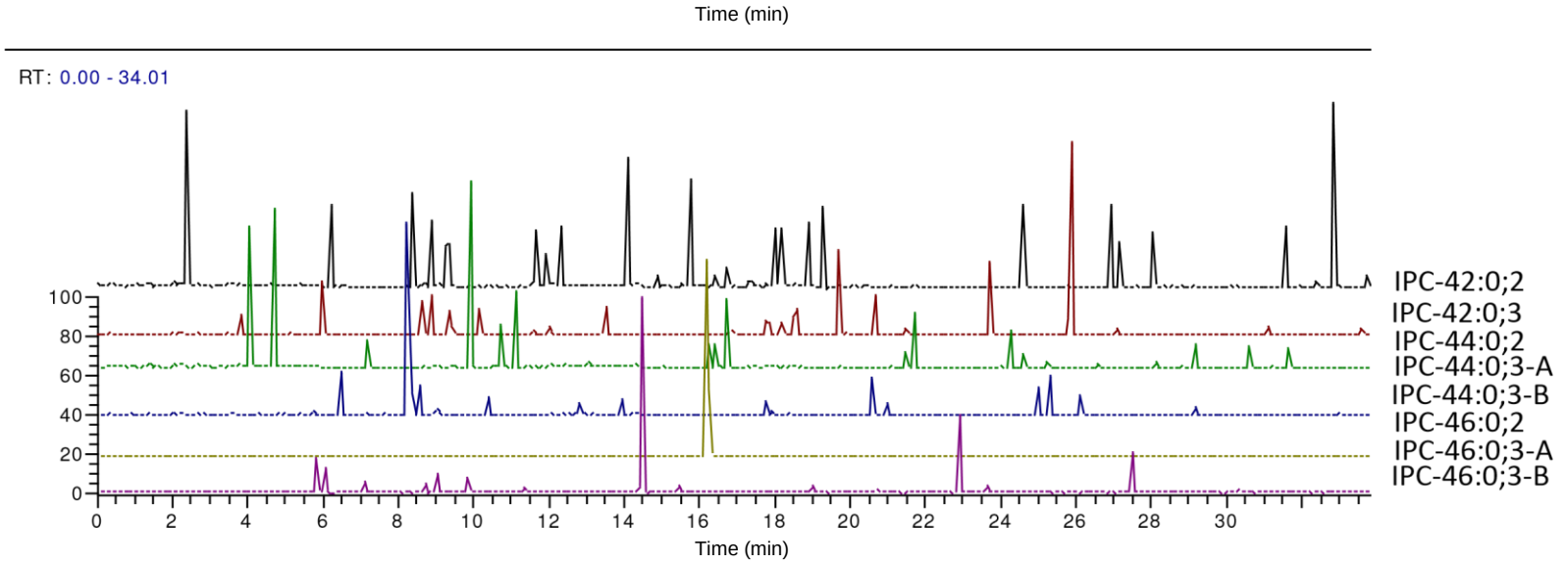


Time (min)

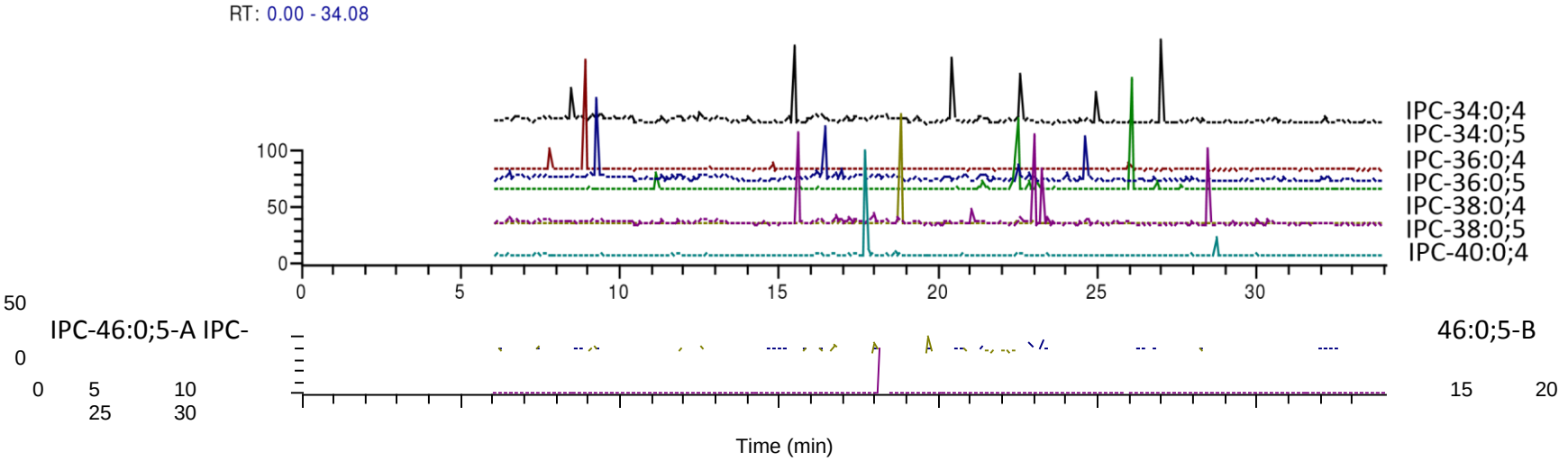


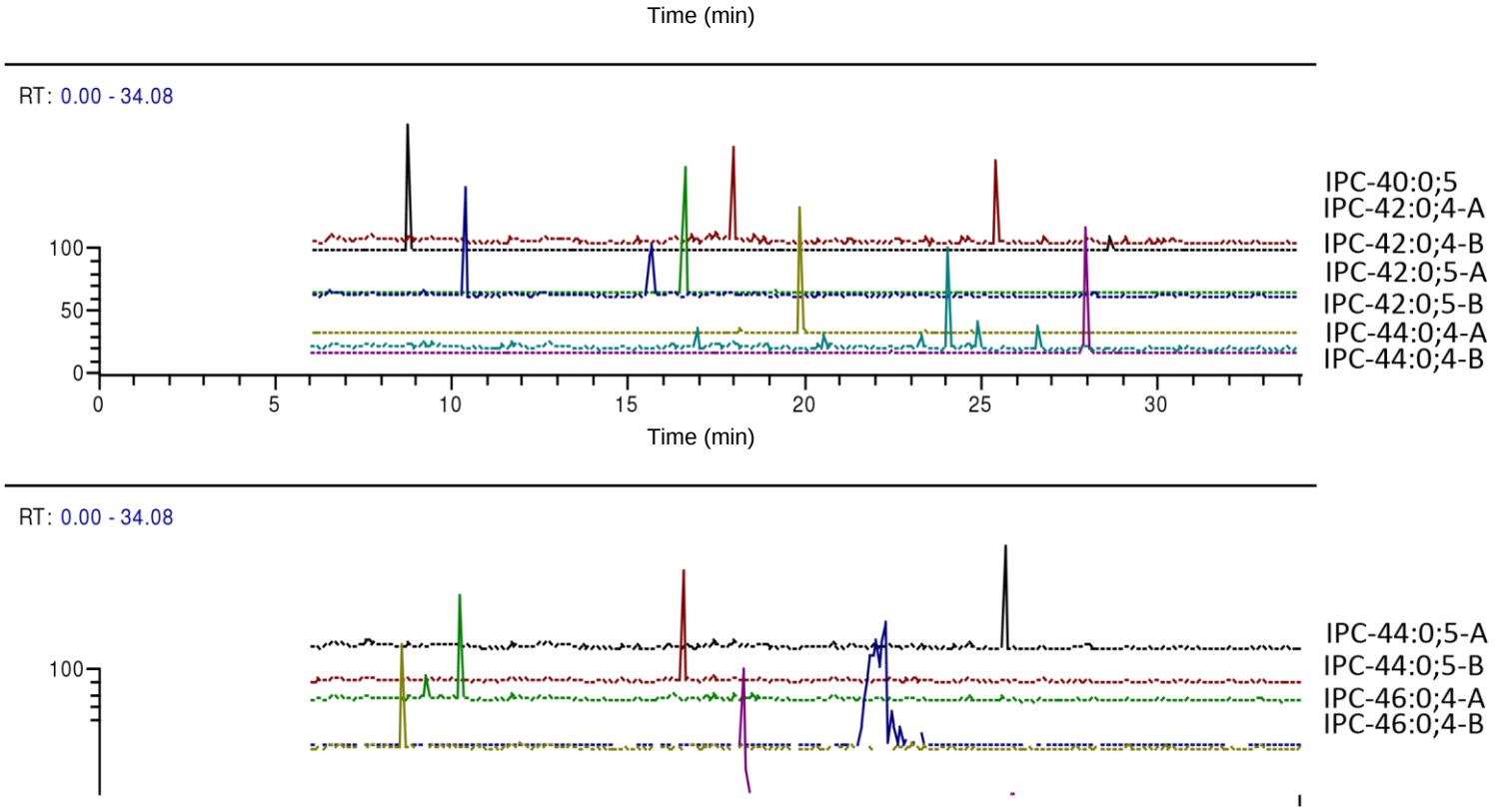
KuWT + 1M Sorbitol:

IPC1

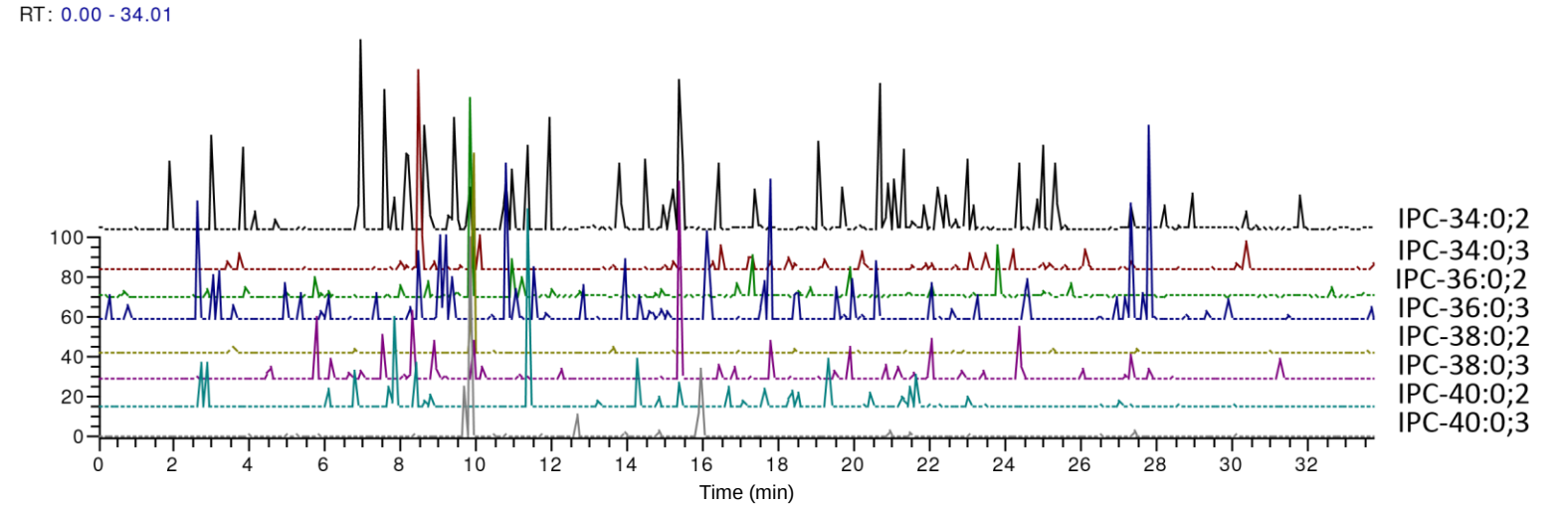


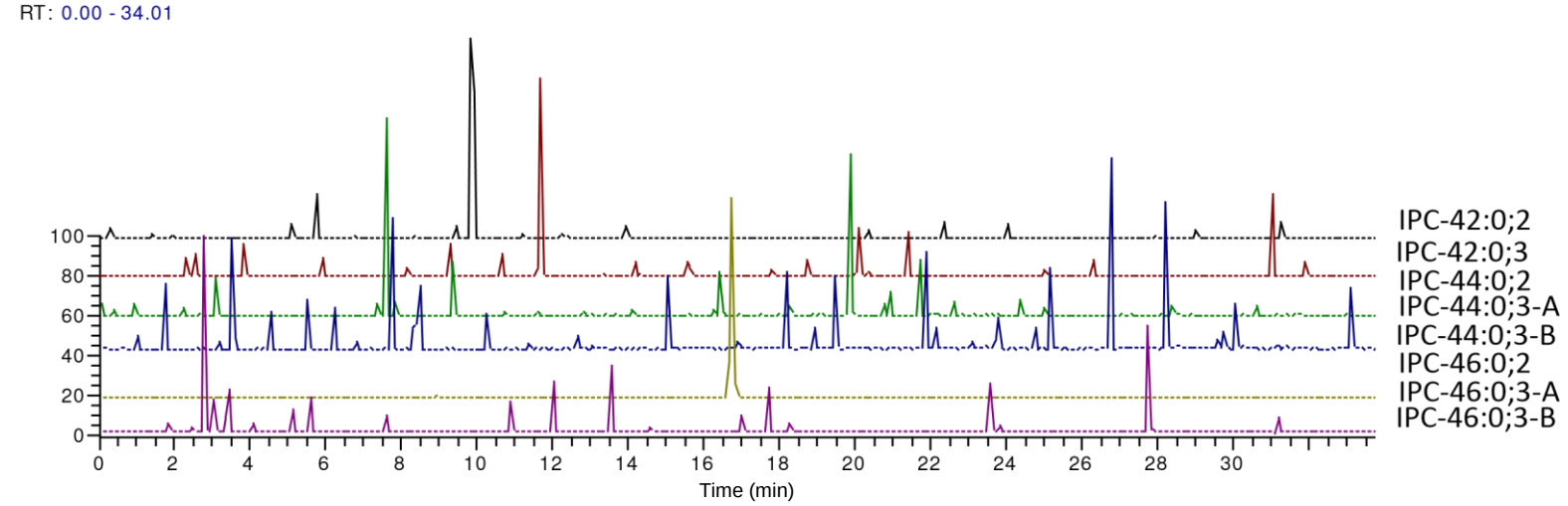
KuWT + 1M Sorbitol: IPC2

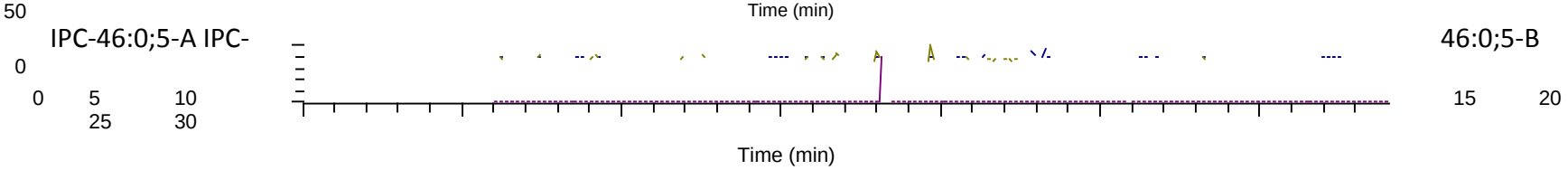




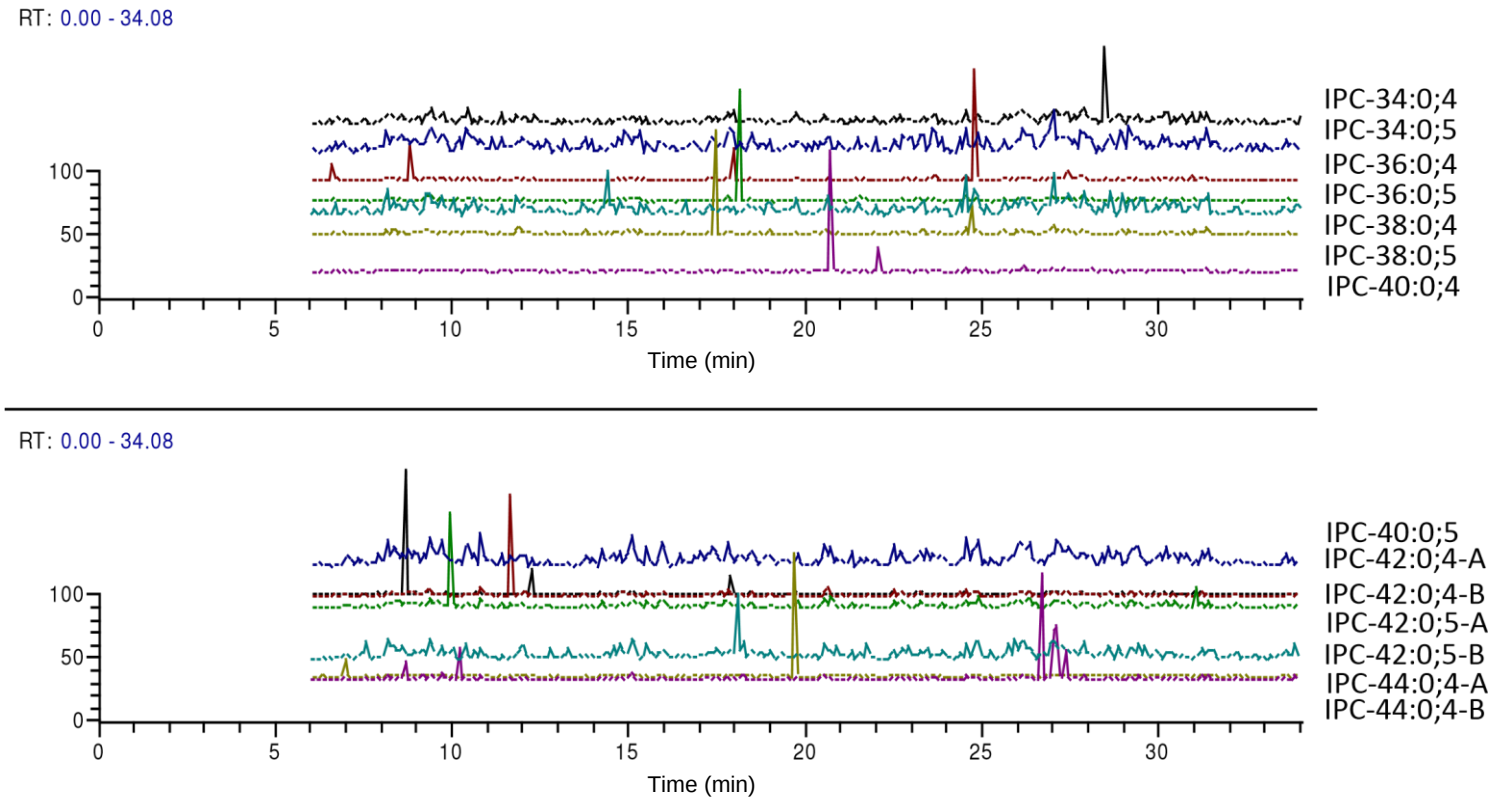
KuΔschA: IPC1

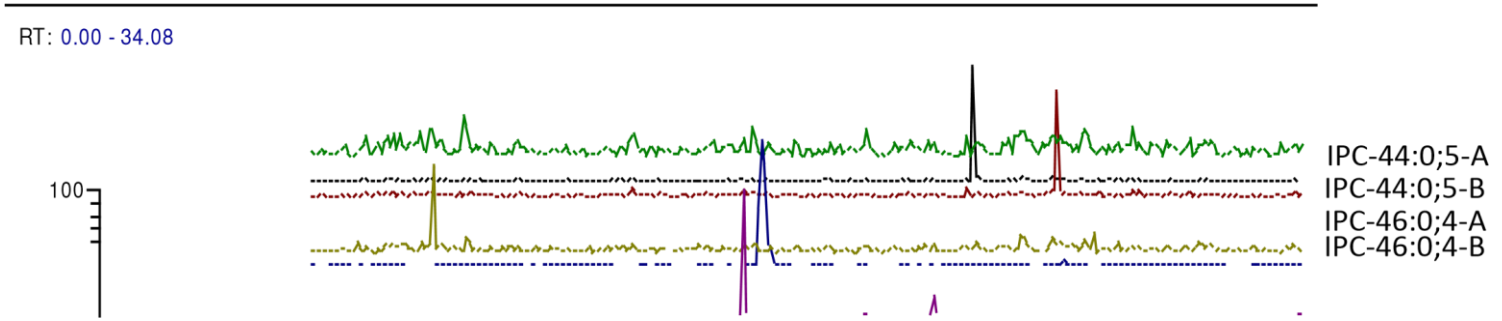

RT: 0.00 - 34.01
IPC-34:0;2
IPC-34:0;3
IPC-36:0;2
IPC-36:0;3
IPC-38:0;2
IPC-38:0;3
IPC-40:0;2
IPC-40:0;3
Time (min)


RT: 0.00 - 34.01
IPC-42:0;2
IPC-42:0;3
IPC-44:0;2
IPC-44:0;3-A
IPC-44:0;3-B
IPC-46:0;2
IPC-46:0;3-A
IPC-46:0;3-B
Time (min)

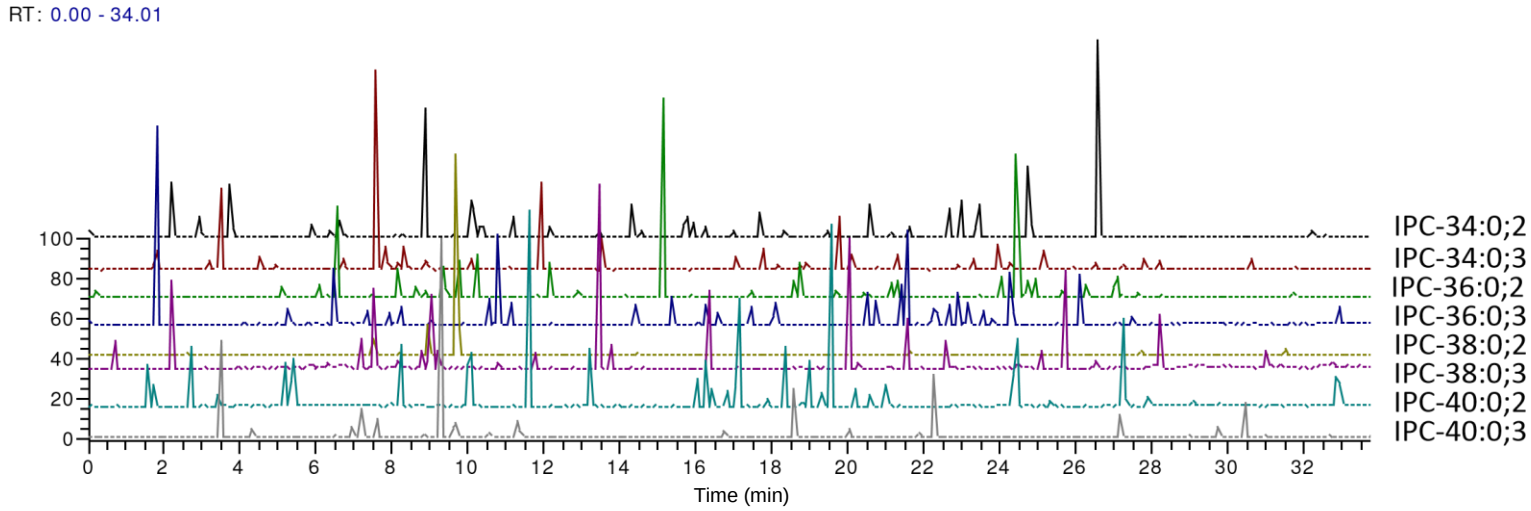

IPC-46:0;5-A IPC-
46:0;5-B
Time (min)

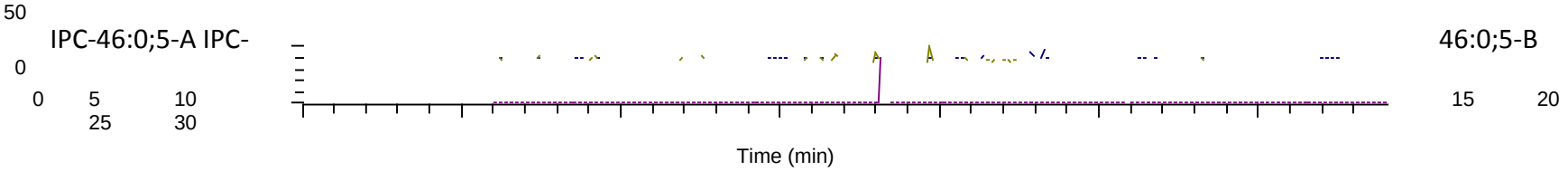
KuΔschA: IPC2

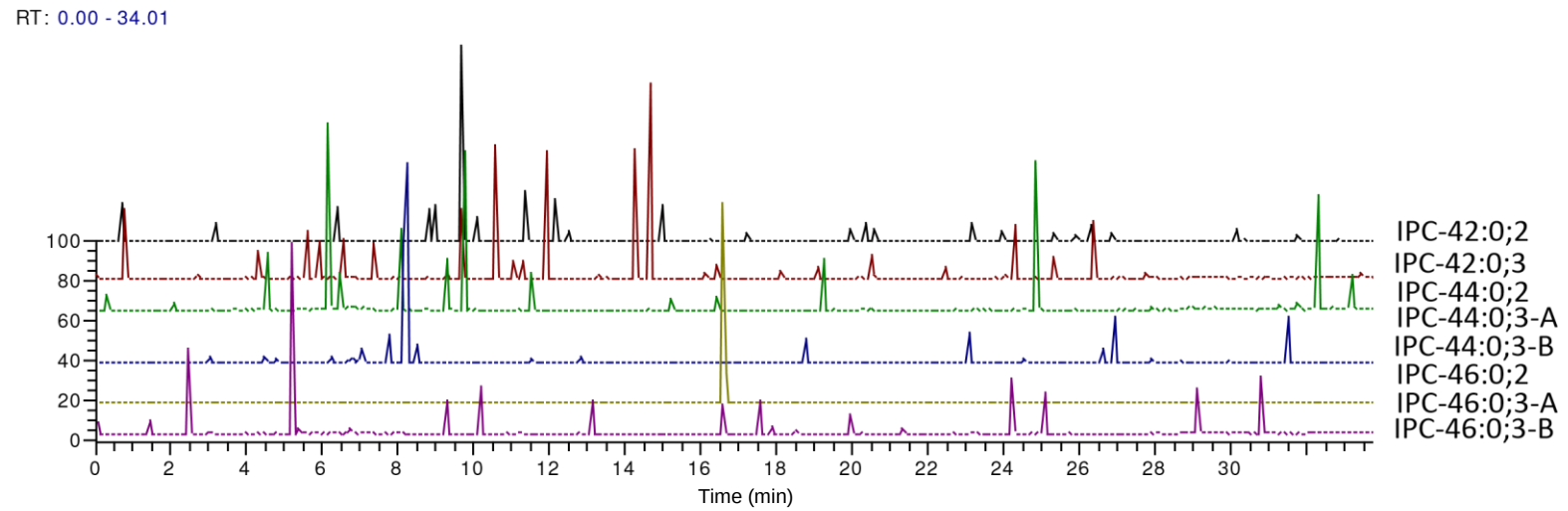




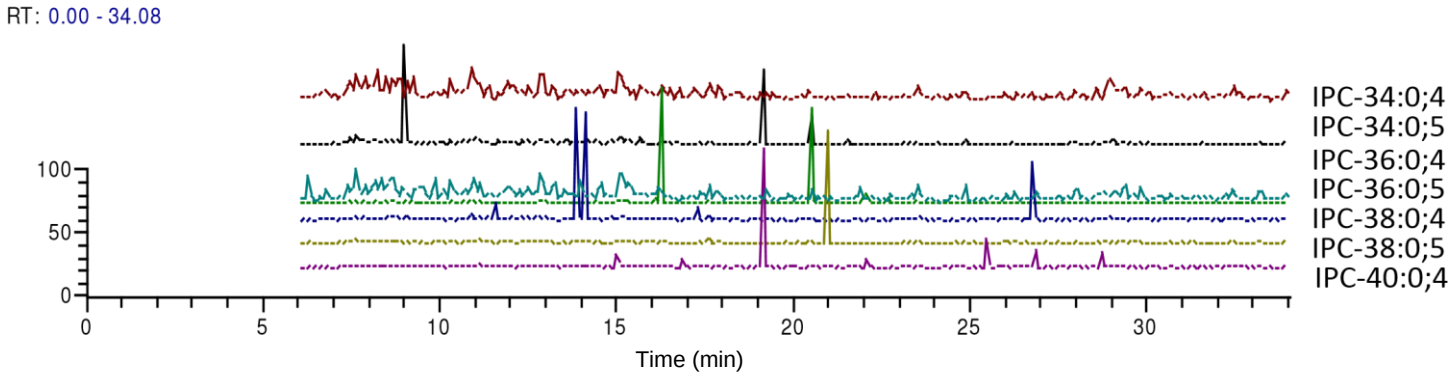
KuΔschA + 1M Sorbitol: IPC1

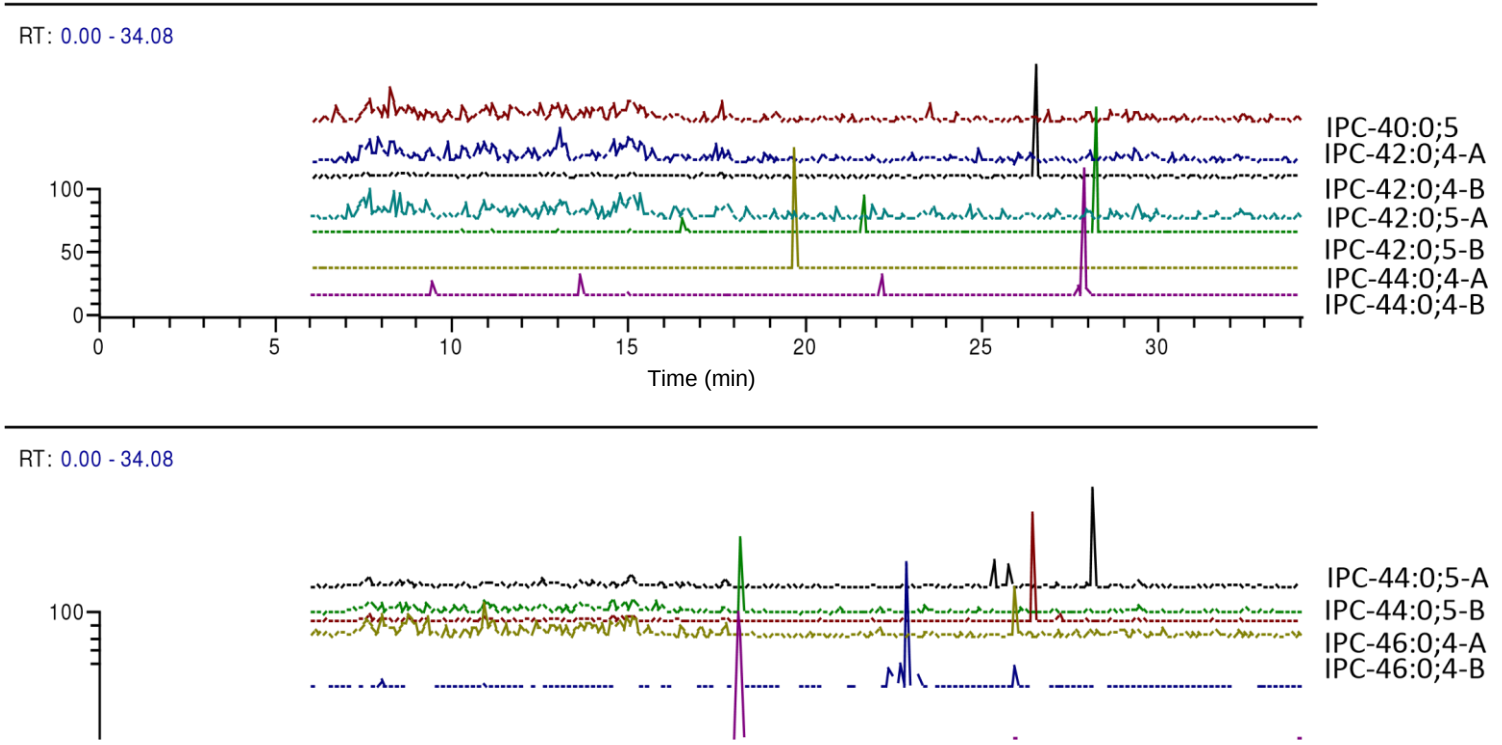




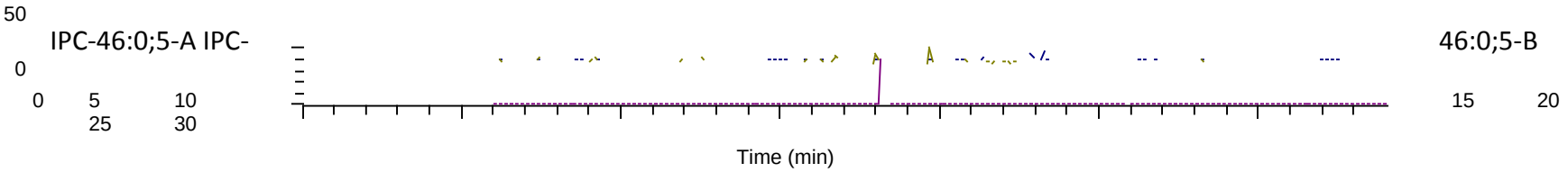


KuΔschA + 1M Sorbitol: IPC2

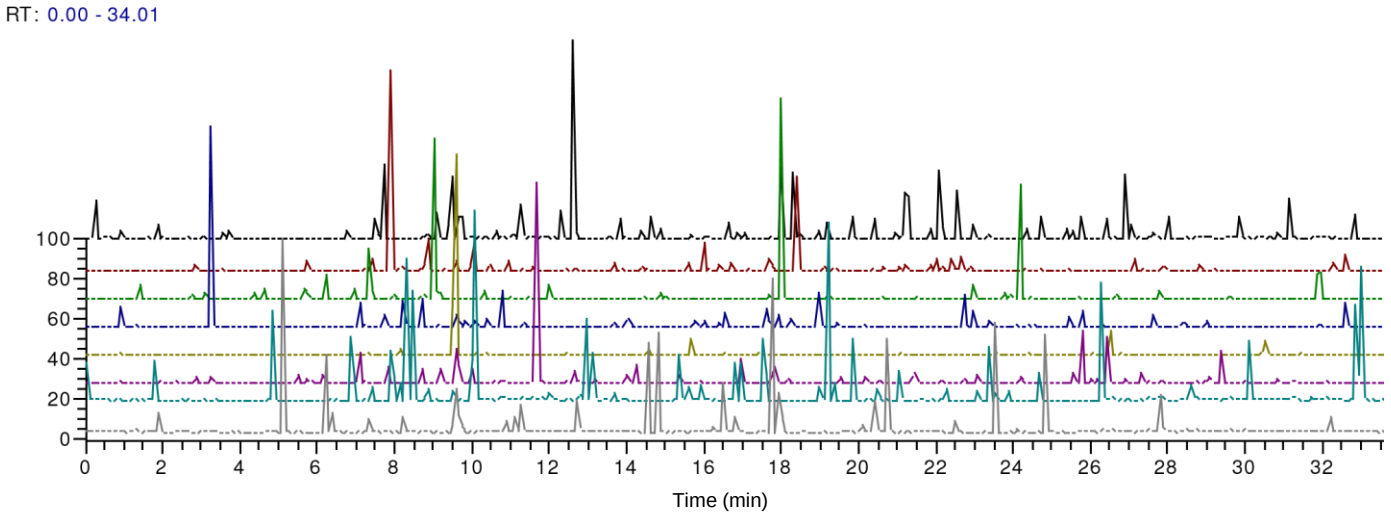




MRM Scanning Chromatograms of Mannosylinositolphosphorylceramide species

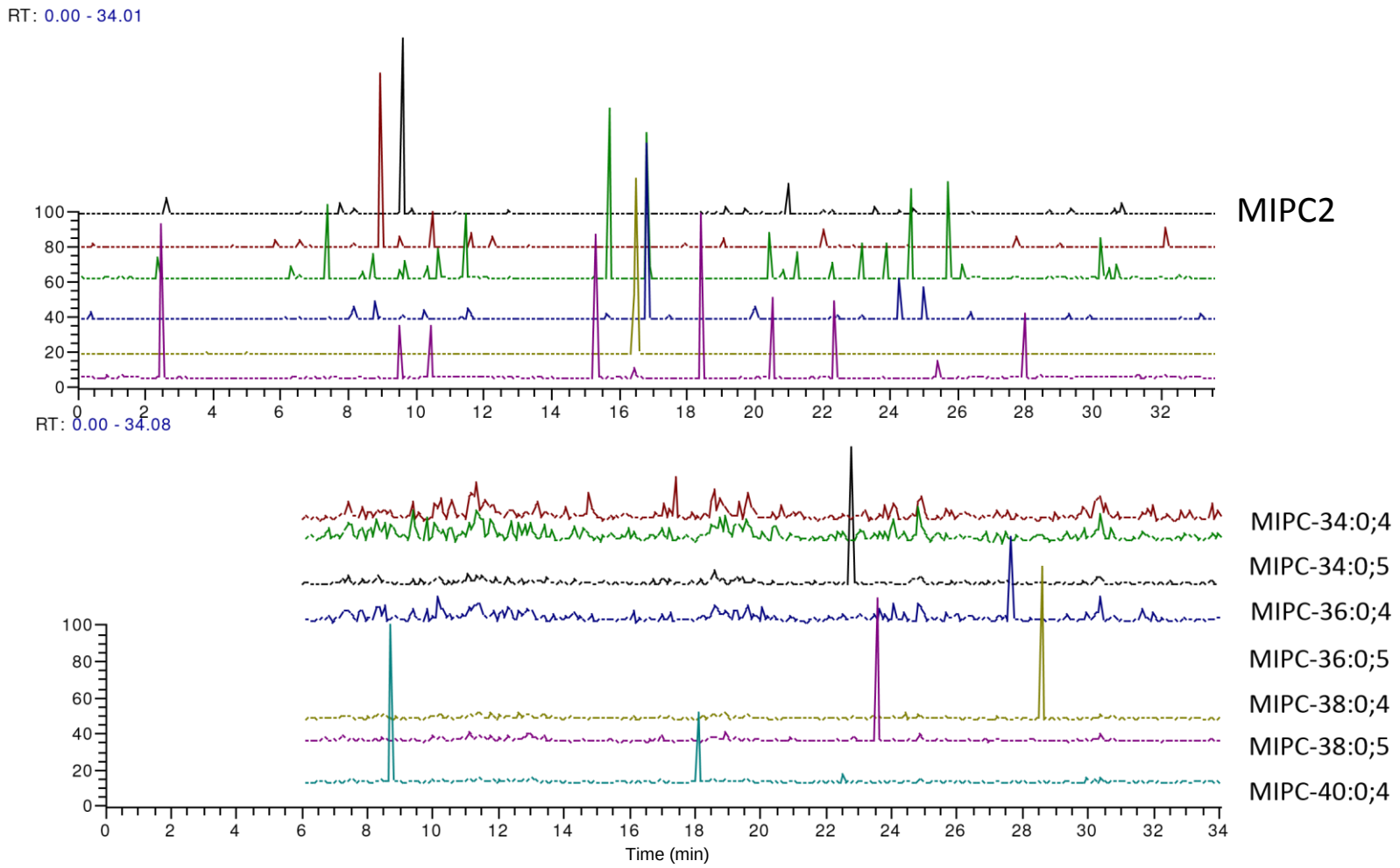


KuWT: MIPC1


RT: 0.00 - 34.01
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
Time (min)

Time (min)

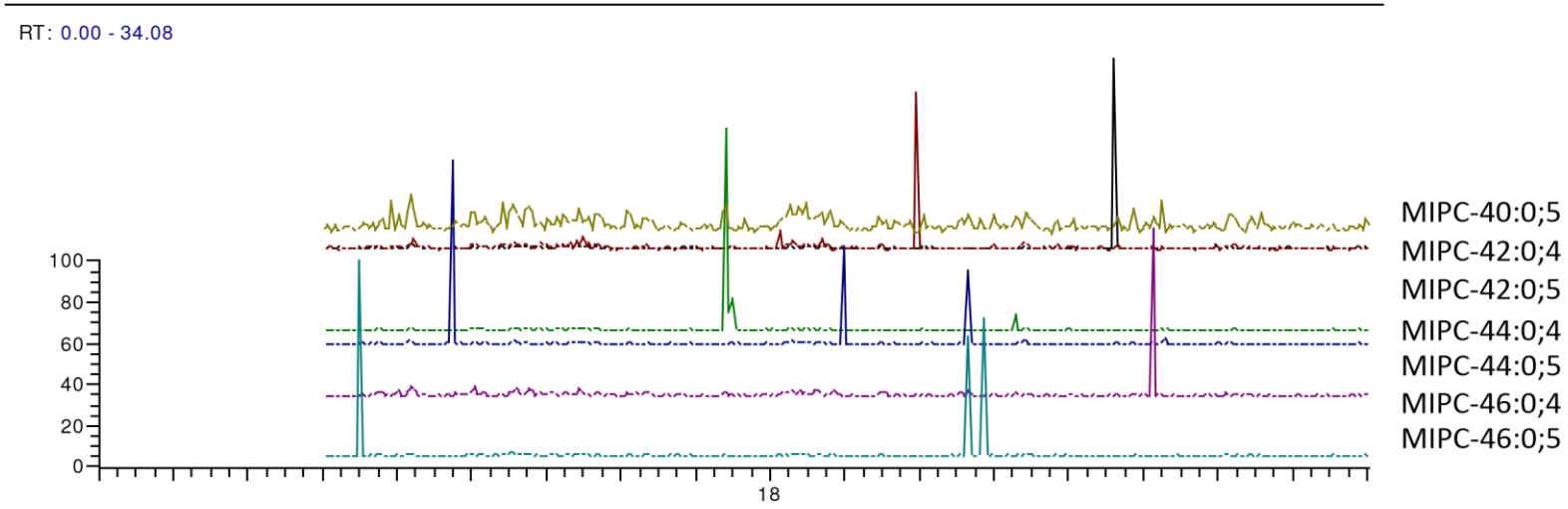
KuWT:



MIPC2

MIPC-34:0;4
MIPC-34:0;5
MIPC-36:0;4
MIPC-36:0;5
MIPC-38:0;4
MIPC-38:0;5
MIPC-40:0;4

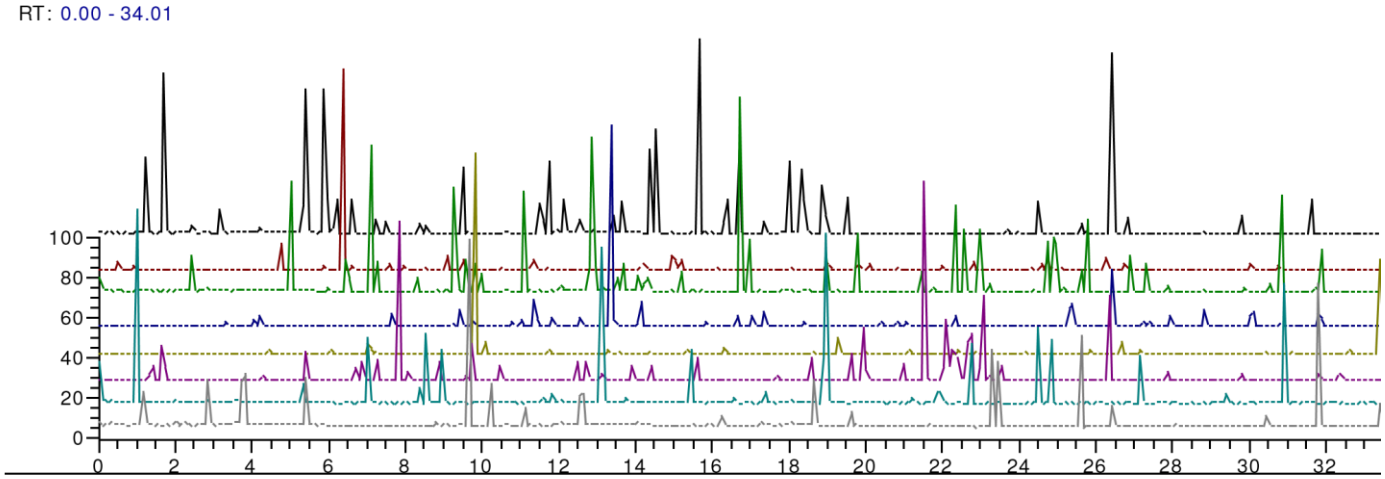
0 2 4 6 8 10

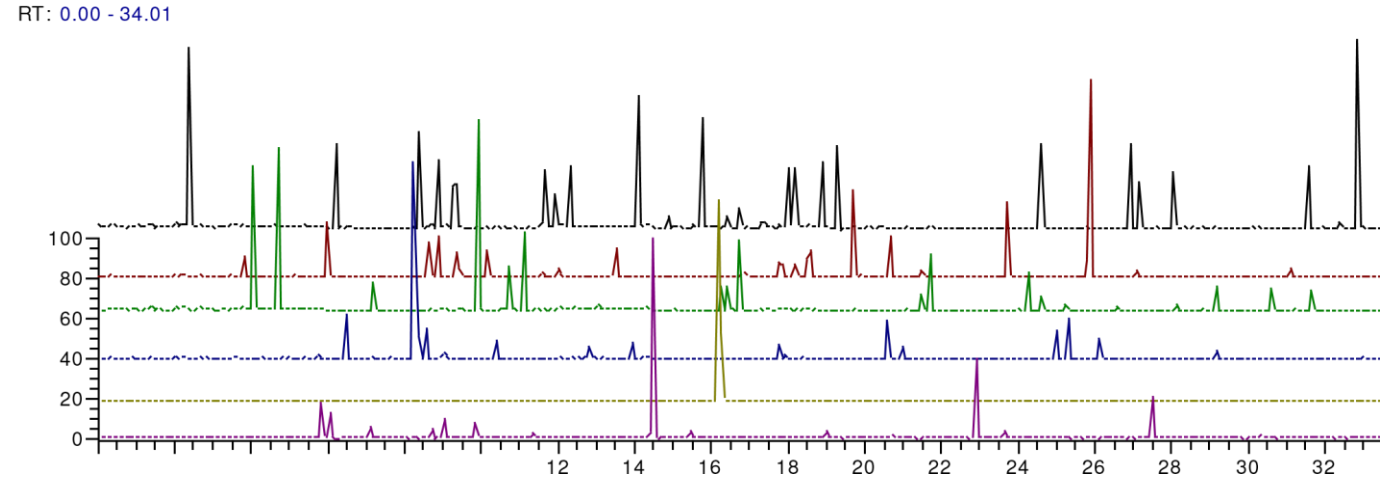


KuWT + 1M Sorbitol: MIPC1

0 2 4 6 8 10 12 14 16 20 22 24 26 28 30 32 34

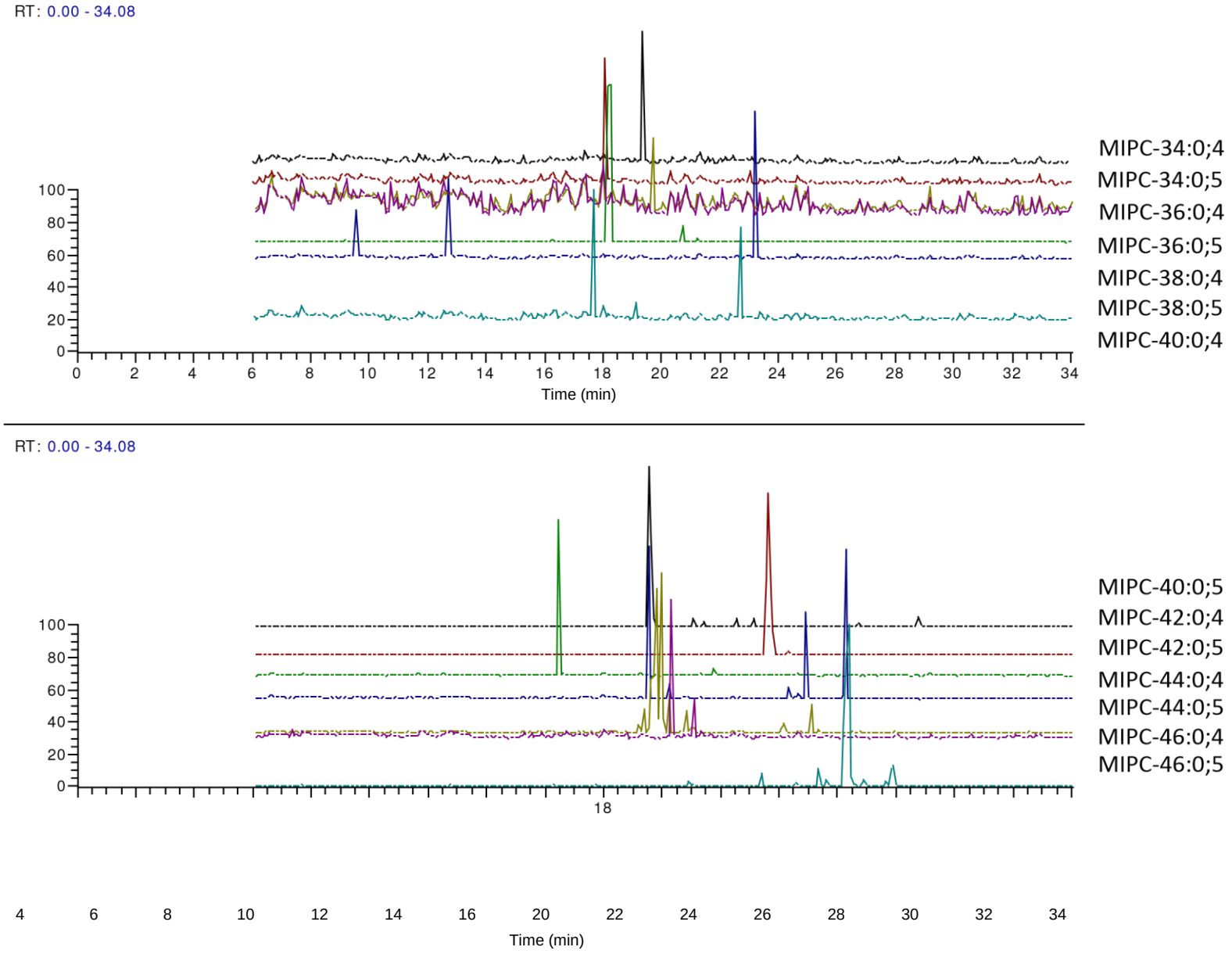
Time (min)

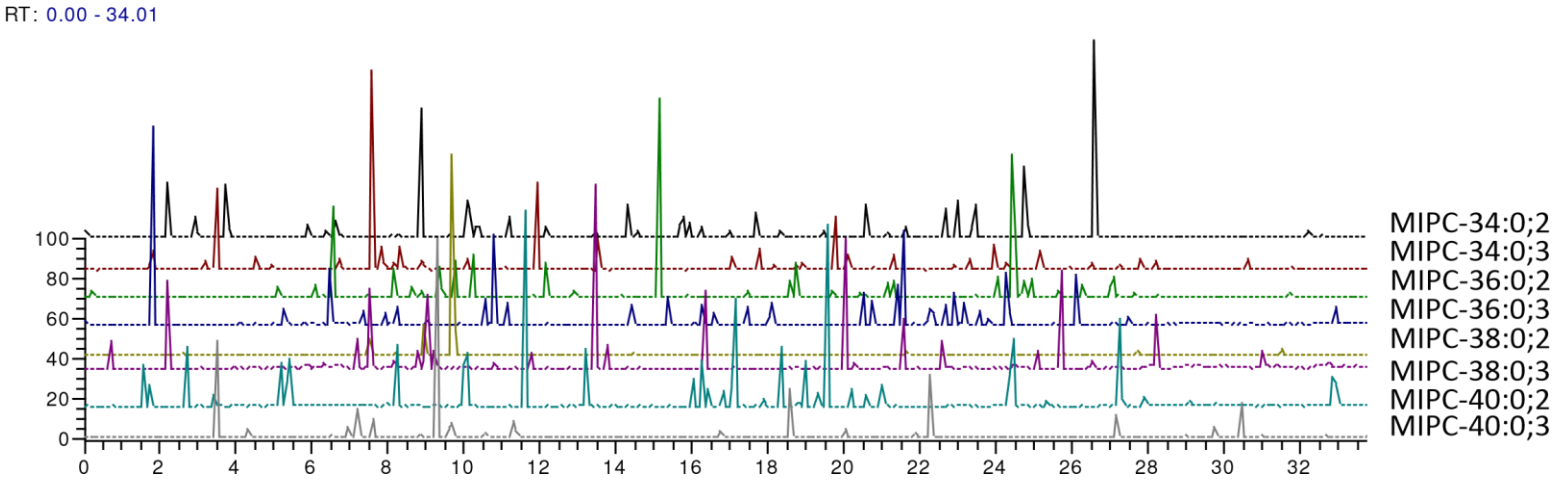




KuWT + 1M Sorbitol: MIPC2

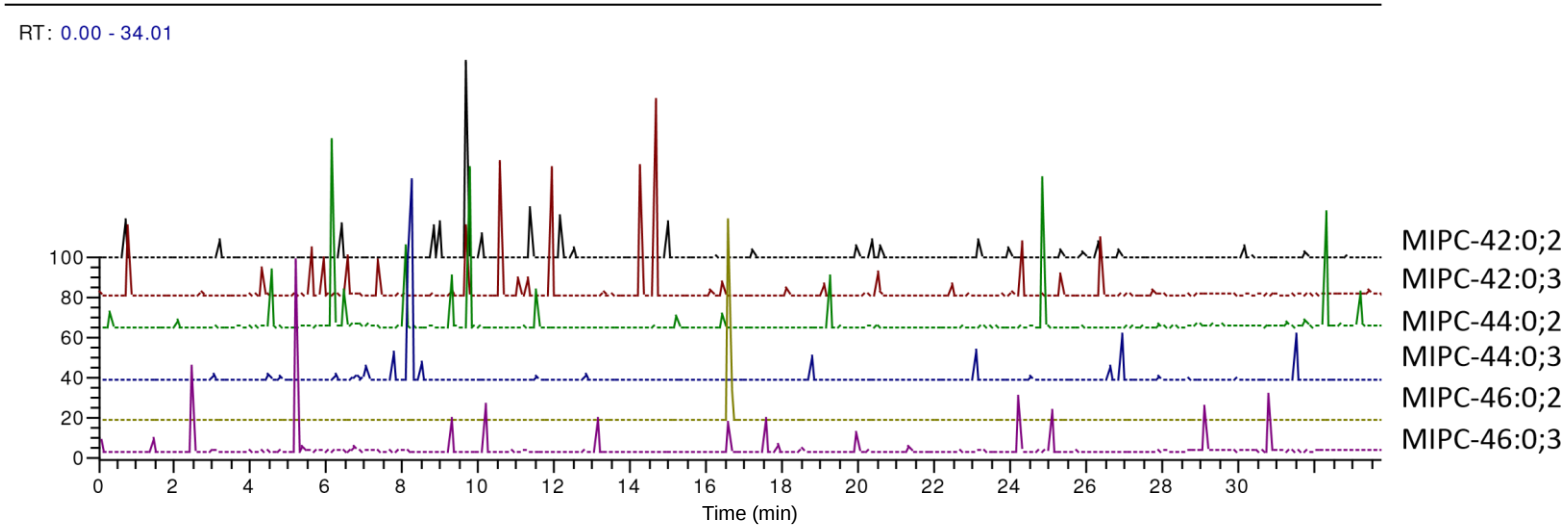
0 2 4 6 8 10


RT: 0.00 - 34.08
MIPC-34:0;4
MIPC-34:0;5
MIPC-36:0;4
MIPC-36:0;5
MIPC-38:0;4
MIPC-38:0;5
MIPC-40:0;4
Time (min)
RT: 0.00 - 34.08
MIPC-40:0;5
MIPC-42:0;4
MIPC-42:0;5
MIPC-44:0;4
MIPC-44:0;5
MIPC-46:0;4
MIPC-46:0;5
Time (min)



KuΔschA: MIPC1

KuΔ

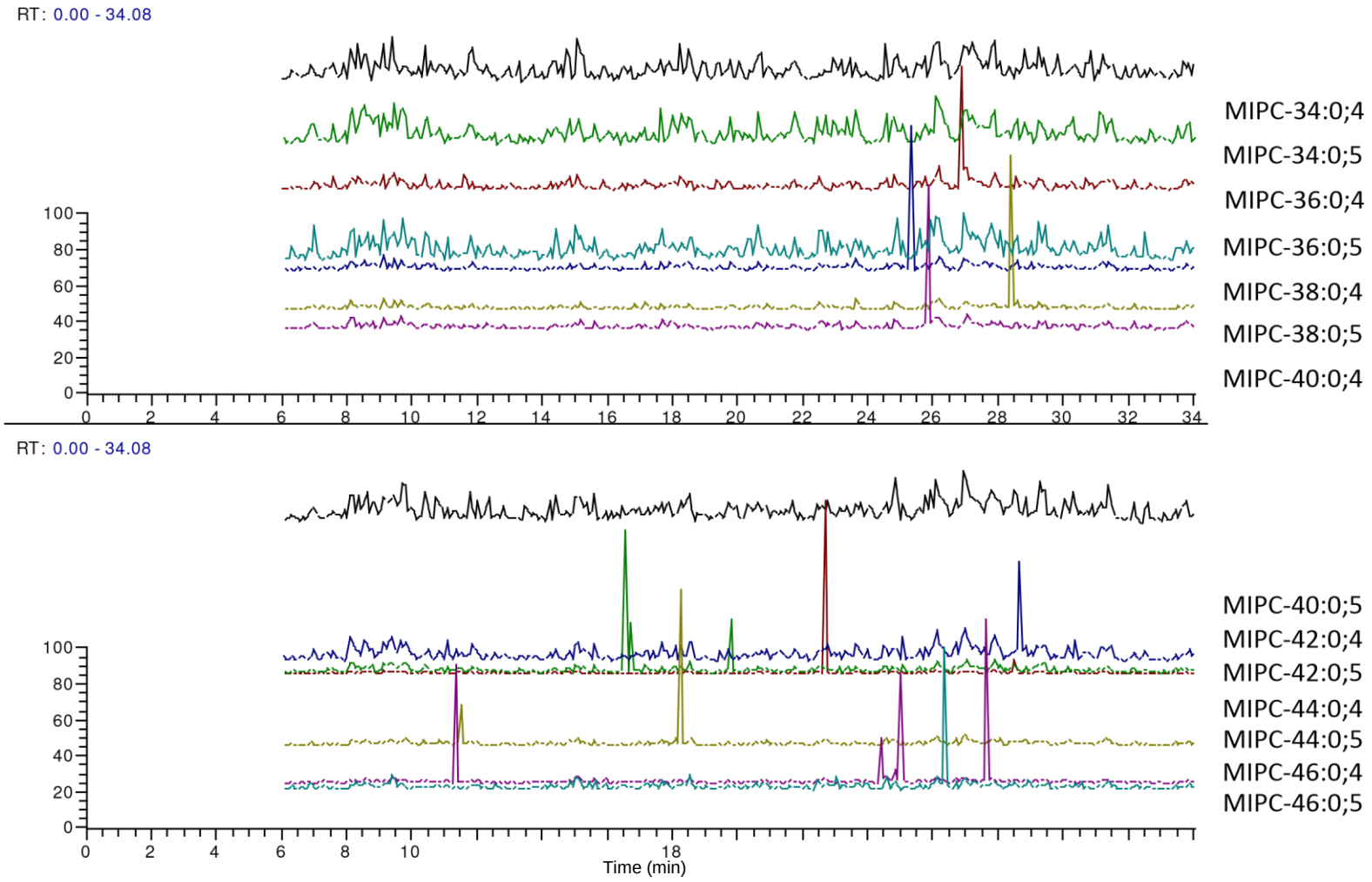


schA: MIPC2

12 14 16 20 22 24 26 28 30 32 34

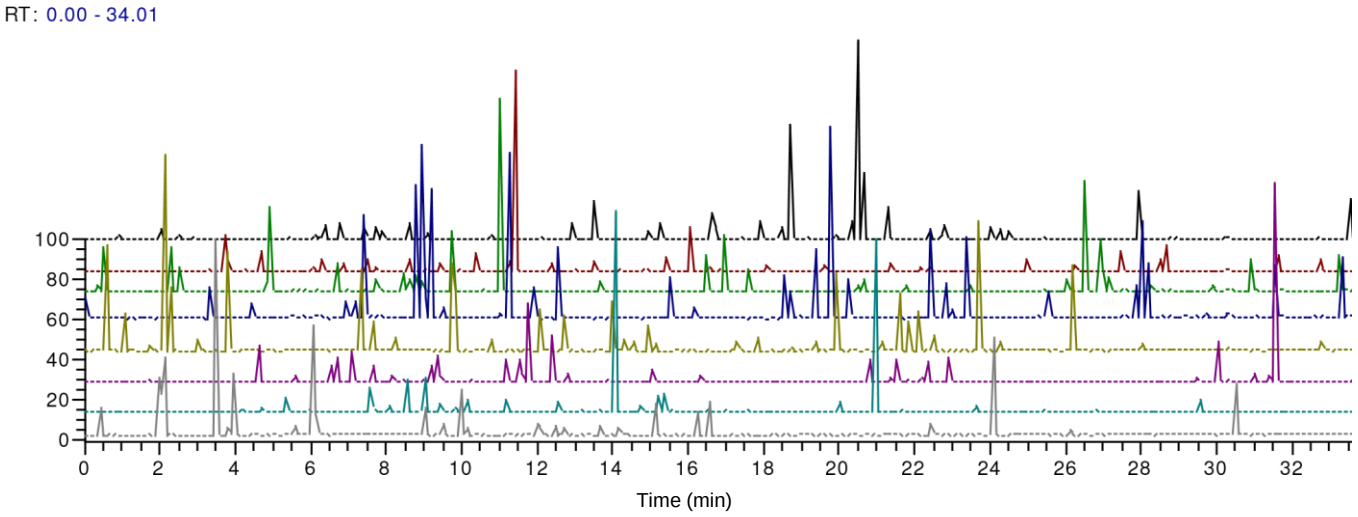
Time (min)

KuΔ


RT: 0.00 - 34.08
MIPC-34:0;4
MIPC-34:0;5
MIPC-36:0;4
MIPC-36:0;5
MIPC-38:0;4
MIPC-38:0;5
MIPC-40:0;4
RT: 0.00 - 34.08
MIPC-40:0;5
MIPC-42:0;4
MIPC-42:0;5
MIPC-44:0;4
MIPC-44:0;5
MIPC-46:0;4
MIPC-46:0;5
Time (min)

KuΔ

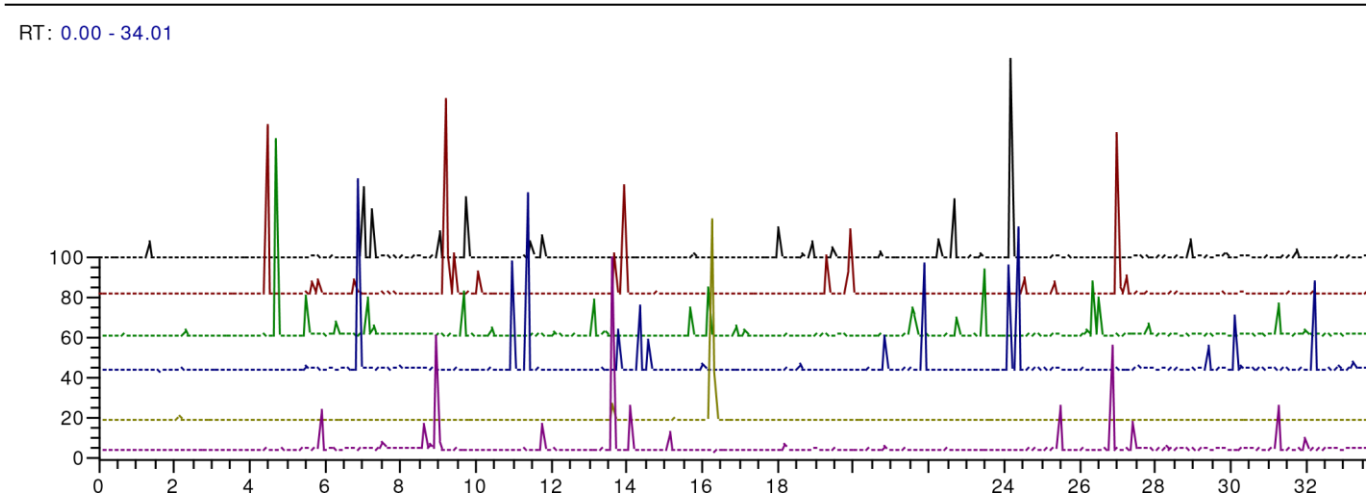
schA + 1M Sorbitol: MIPC1



12 14 16 20 22 24 26 28 30 32 34

Time (min)

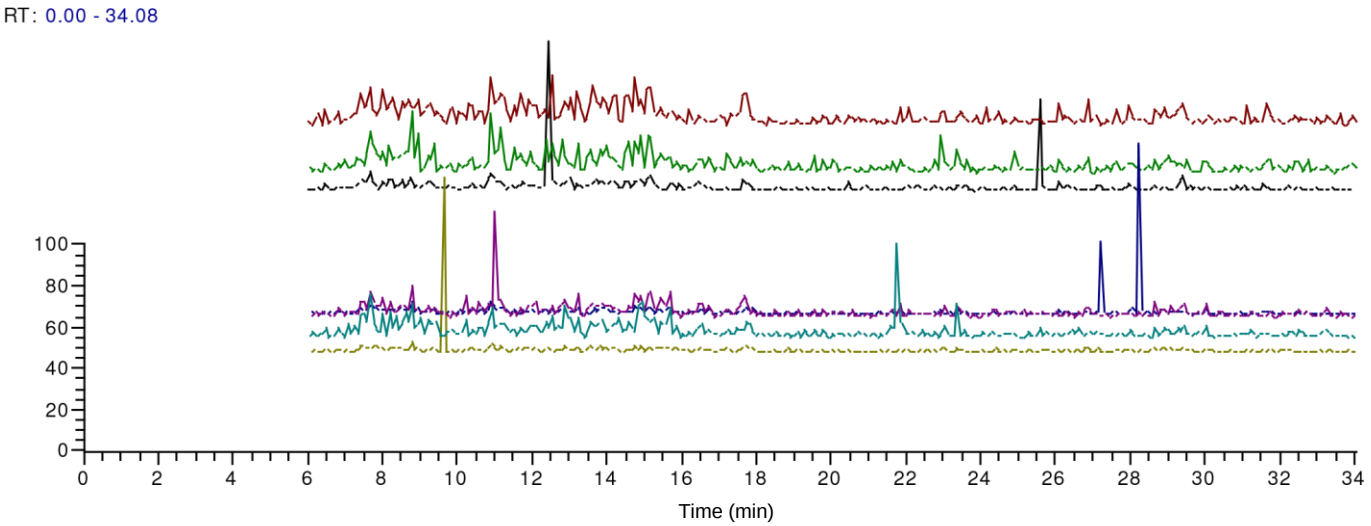
KuΔ



Time (min)

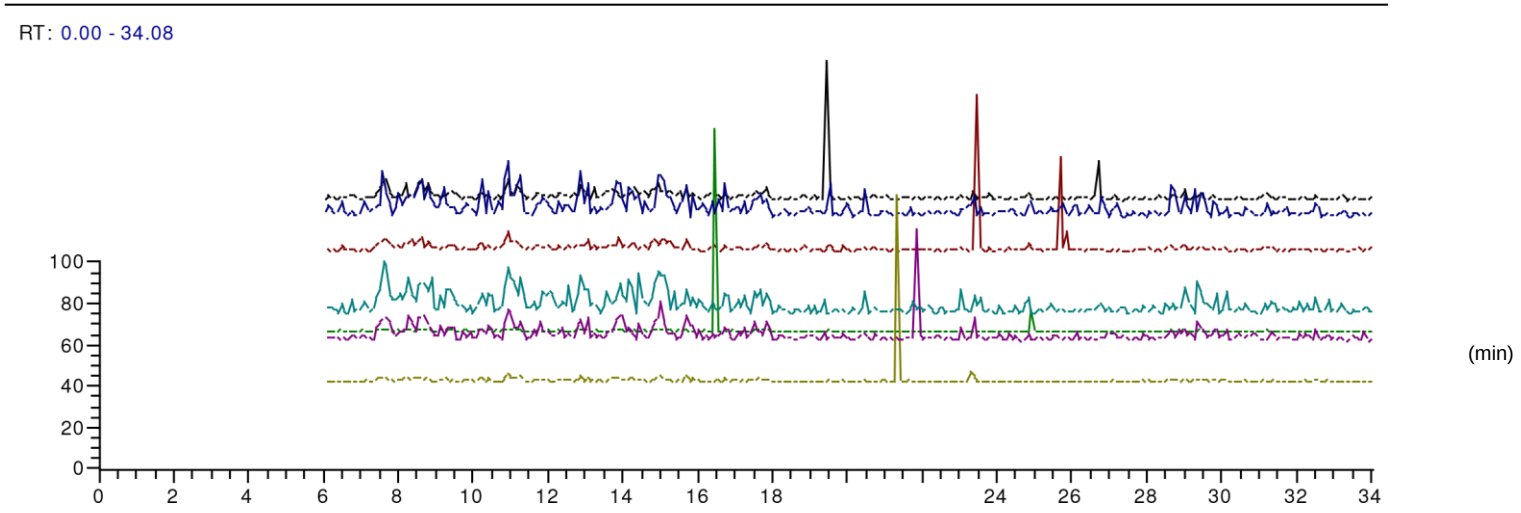
KuΔ

schA + 1M Sorbitol: MIPC2



20 22

KuΔ


RT: 0.00 - 34.08
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
18
24
26
28
30
32
34
Time
(min)

20 22