

# Supplementary Data S1 and S2

for

## **The complexity and dynamics of the tissue glycoproteome associated with prostate cancer progression**









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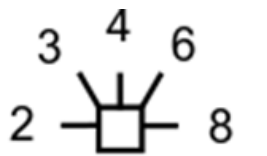
<sup>3</sup>Biomolecular Discovery Research Centre, Macquarie University, Sydney, NSW, Australia

# Annotation and Fragmentation Key

-  Mannose (162.0528 Da)
-  Galactose (162.0528 Da)
-  N-Acetylglucosamine (203.0794 Da)
-  N-Acetylgalactosamine (203.0794 Da)
-  N-Acetylneuraminic acid (291.0954 Da)
-  N-glycolyl neuraminic acid (307.0903 Da)
-  Fucose (146.0579 Da)
-  Cross-ring fragment (unspecified)

 Indicates mostly Y ions (includes oxygen of glycosidic linkage)

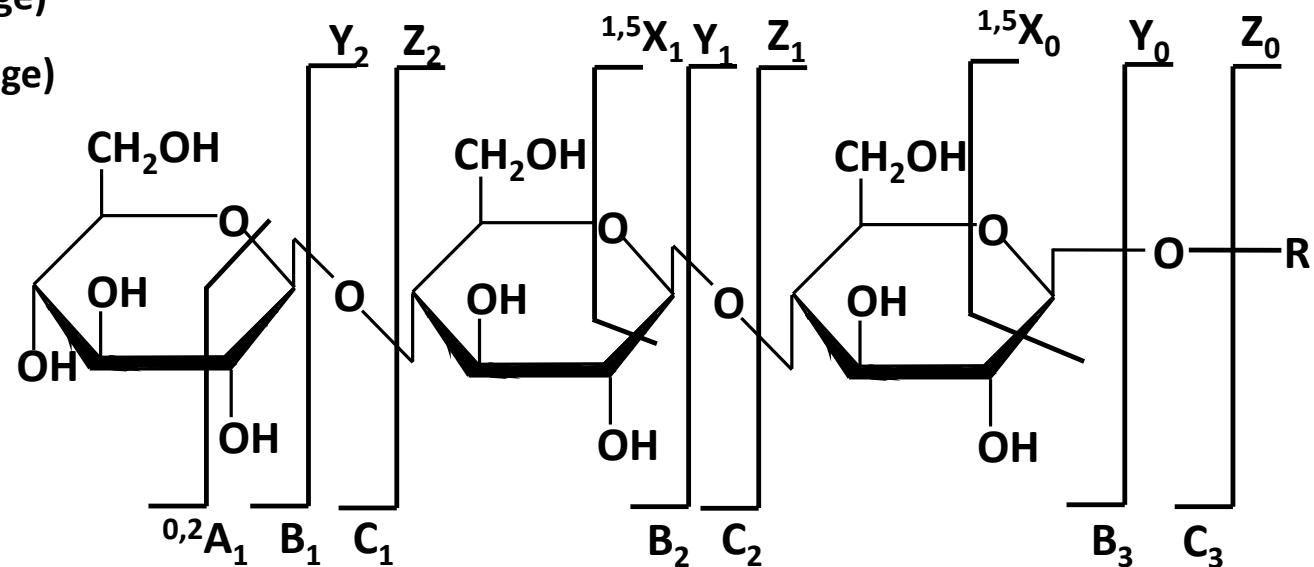
 Indicates mostly Z ions (excludes oxygen of glycosidic linkage)



} undefined

Comment 1: All glycans contain reducing end which is not depicted in the *N*-glycan structure cartoon

Comment 2: linkage represented only for  $\alpha$ 2,6 and  $\alpha$ 2,3 sialic acid residues



# Supplementary Data S1

## Spectra evidences for reduced *N*-glycans (alditols) released from PCa and BPH tissues

**The *N*-glycans reported in this paper were characterised and quantified by:**

- a. EIC (MS) and monoisotopic integration area (blue highlights in insert) (Skyline) (top)
- b. Retention time
- c. CID-MS/MS (-) manual annotation (bottom)

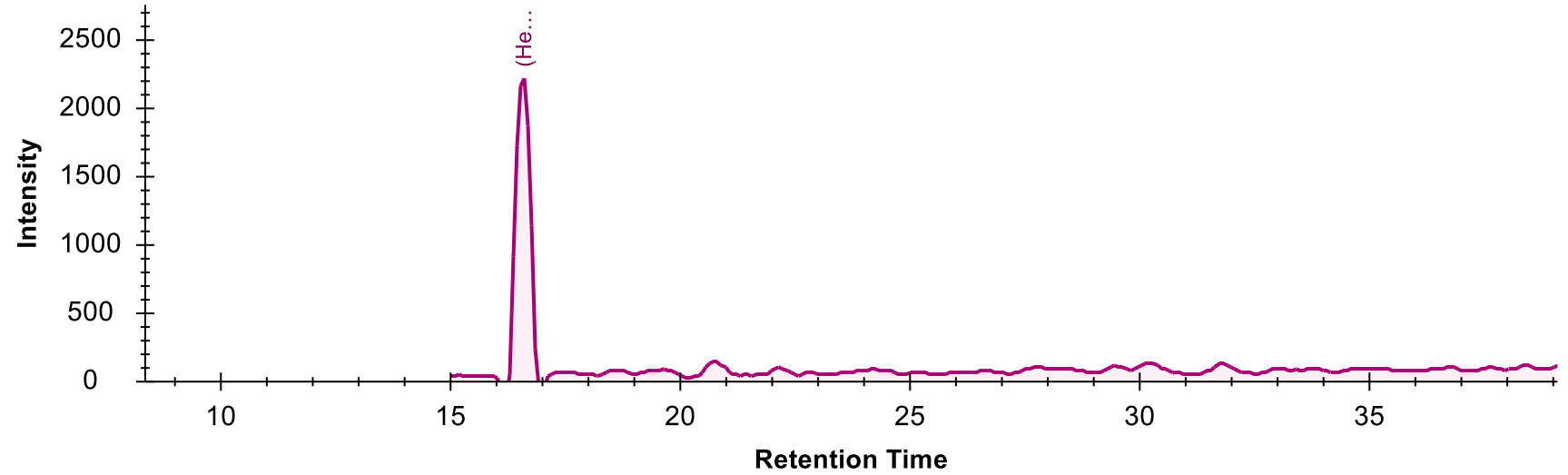
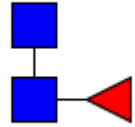
### Supporting literature:

1. Hinneburg, H., Pedersen, J. L., Bokil, N. J., Pralow, A., Schirmeister, F., Kawahara, R., Rapp, E., Saunders, B. M., and Thaysen-Andersen, M. (2020) High-resolution longitudinal N- and O-glycoprofiling of human monocyte-to- macrophage transition. *Glycobiology*
2. Abrahams, J. L., Campbell, M. P., and Packer, N. H. (2018) Building a PGC-LC-MS N-glycan retention library and elution mapping resource. *Glycoconj J* **35**, 15-29
3. Everest-Dass, A. V., Abrahams, J. L., Kolarich, D., Packer, N. H., and Campbell, M. P. (2013) Structural feature ions for distinguishing N- and O-linked glycan isomers by LC-ESI-IT MS/MS. *J Am Soc Mass Spectrom* **24**, 895-906

(HexNAc)<sub>2</sub> (Deoxyhexose)<sub>1</sub>

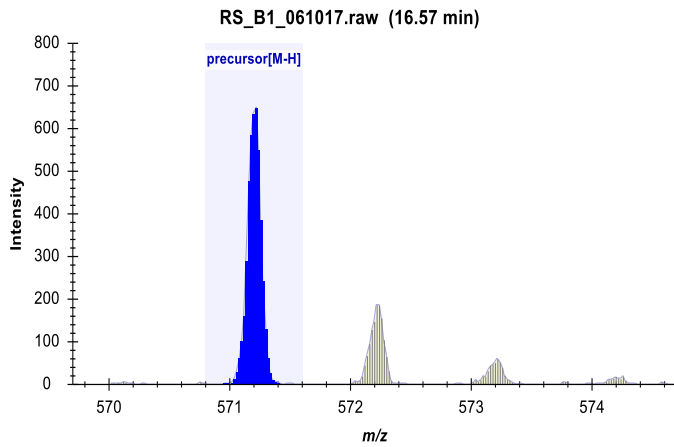
GlytouCan ID: G999480F

[M-H]<sup>-</sup> 571.2

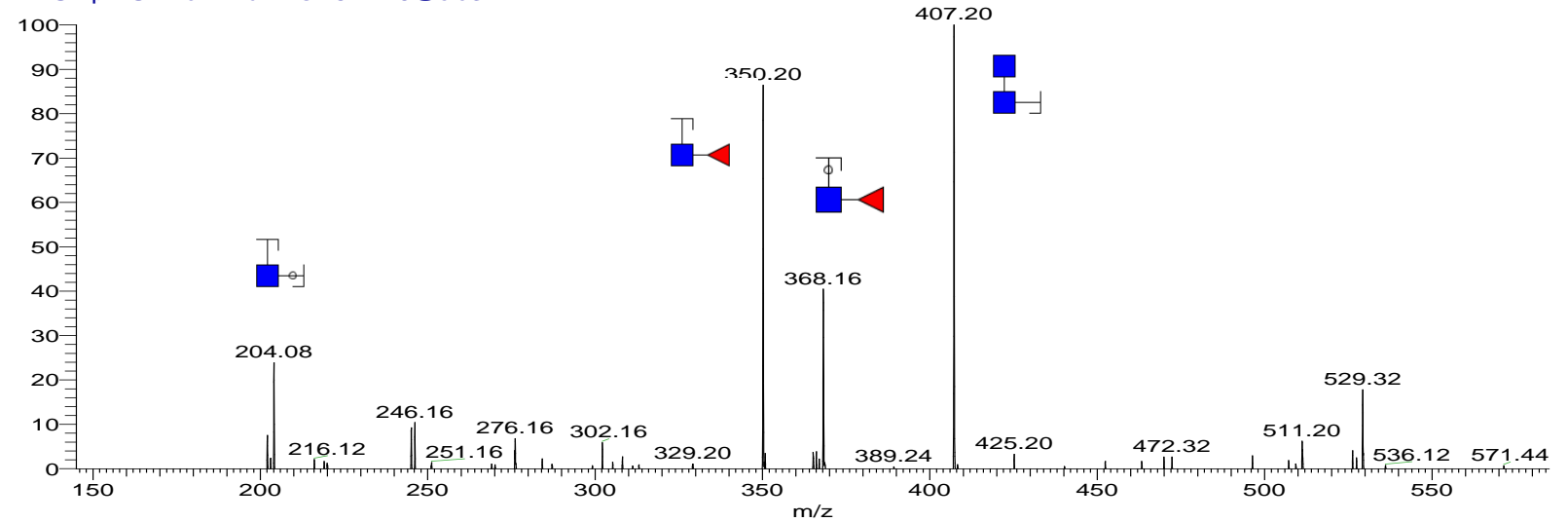


CID-MS/MS ( $m/z$  571.20<sup>1-</sup>)

RS\_B1\_061017 #1286 RT: 16.62 AV: 1 NL: 7.67E1  
T: ITMS - p ESI E d w Full ms2 571.20@cid3



Glycan ID: 1

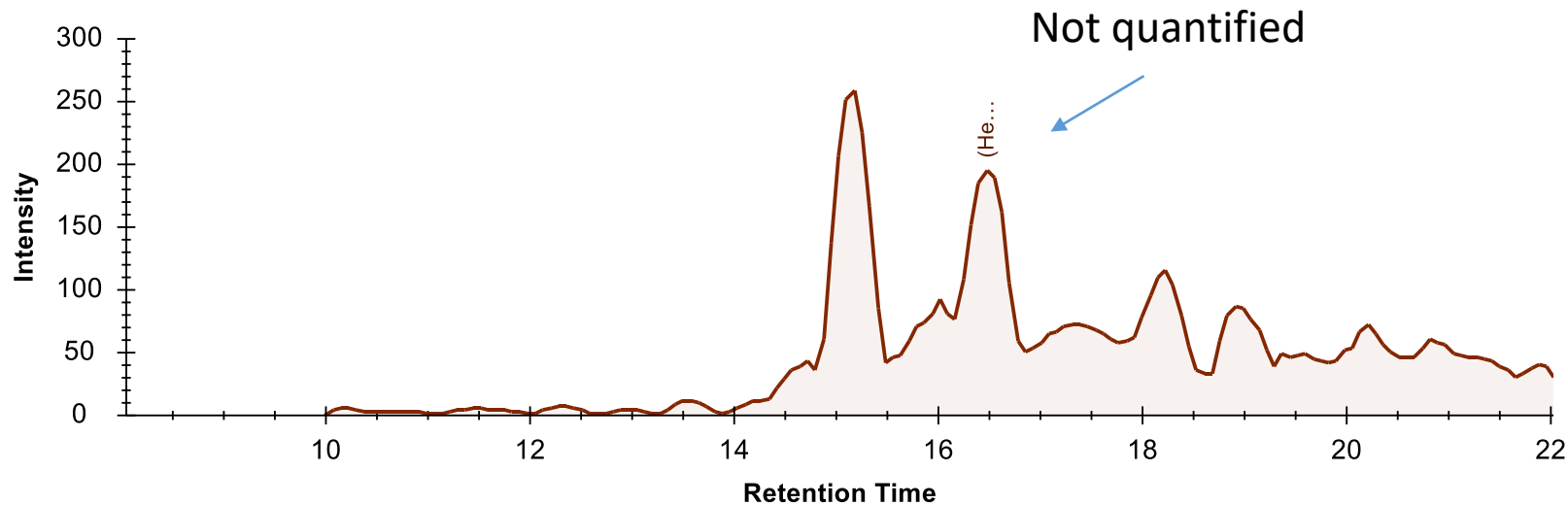
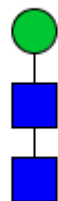




(Hex)1 (HexNAc)2

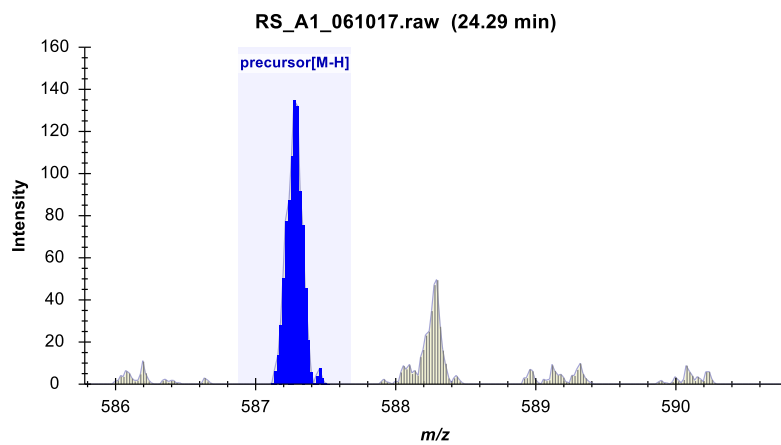
GlytouCan ID: G14469GR

[M-H] 587.28

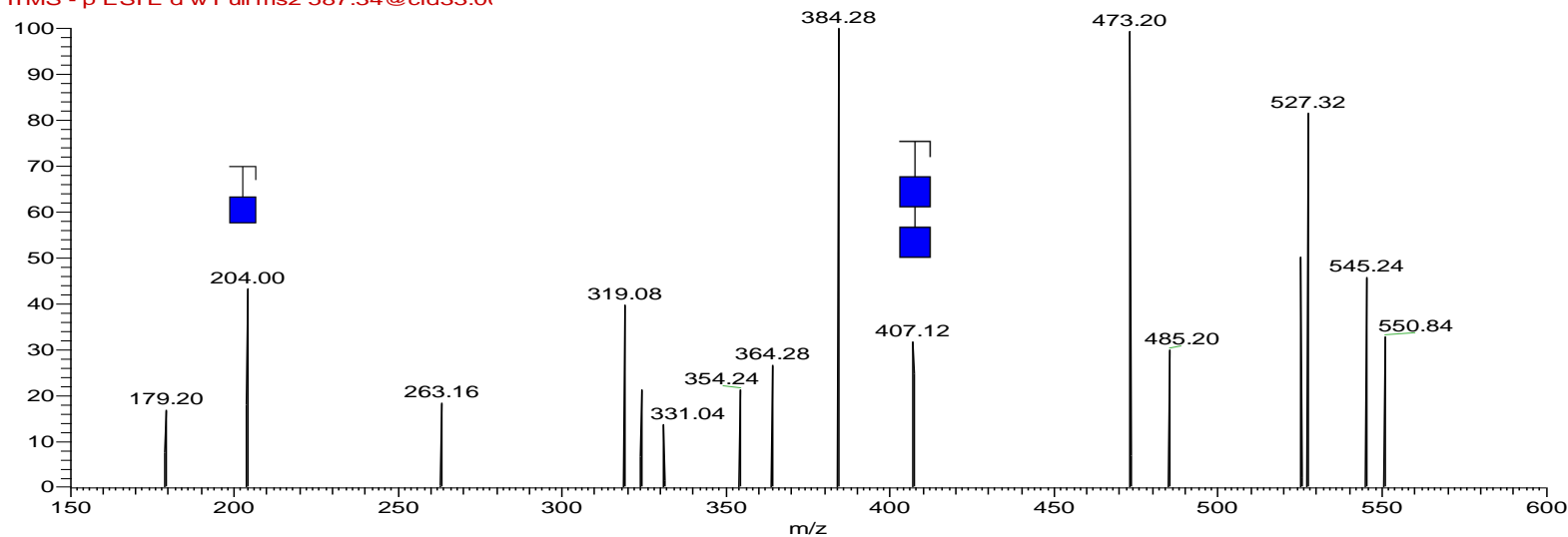


CID-MS/MS ( $m/z$  587.28  $^{1-}$ )

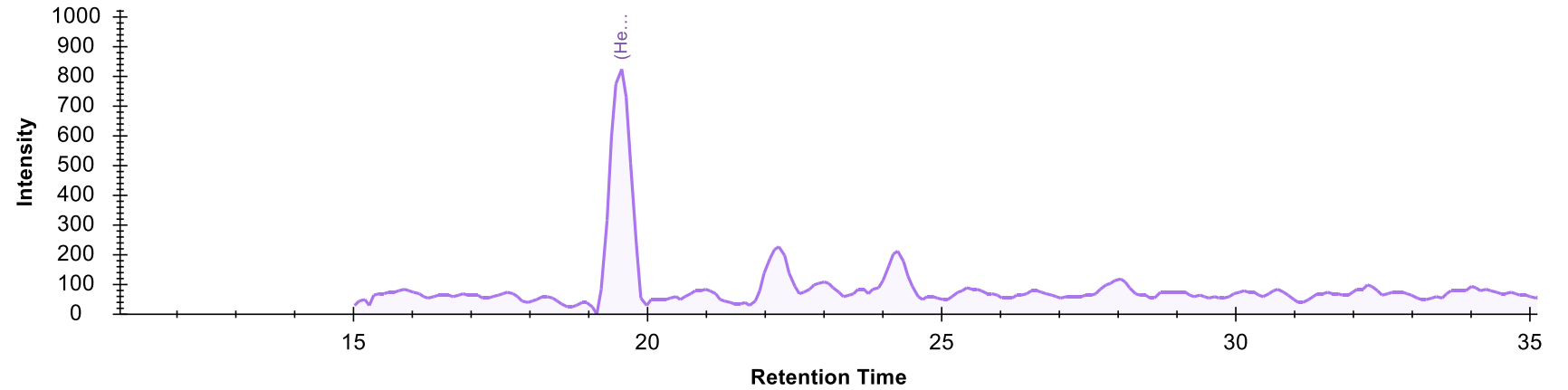
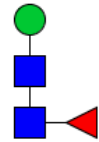
RS\_A8\_061017 #1262 RT: 16.49 AV: 1 NL: 4.01  
F: ITMS - p ESI E d w Full ms2 587.34@cid33.0f



Glycan ID: 2

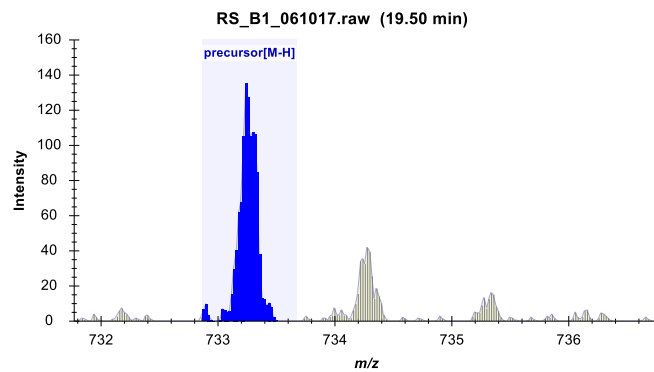


(Hex)1 (HexNAc)2 (Deoxyhexose)1  
GlytouCan ID: G37641EM  
[M-H]<sup>-</sup> 733.27

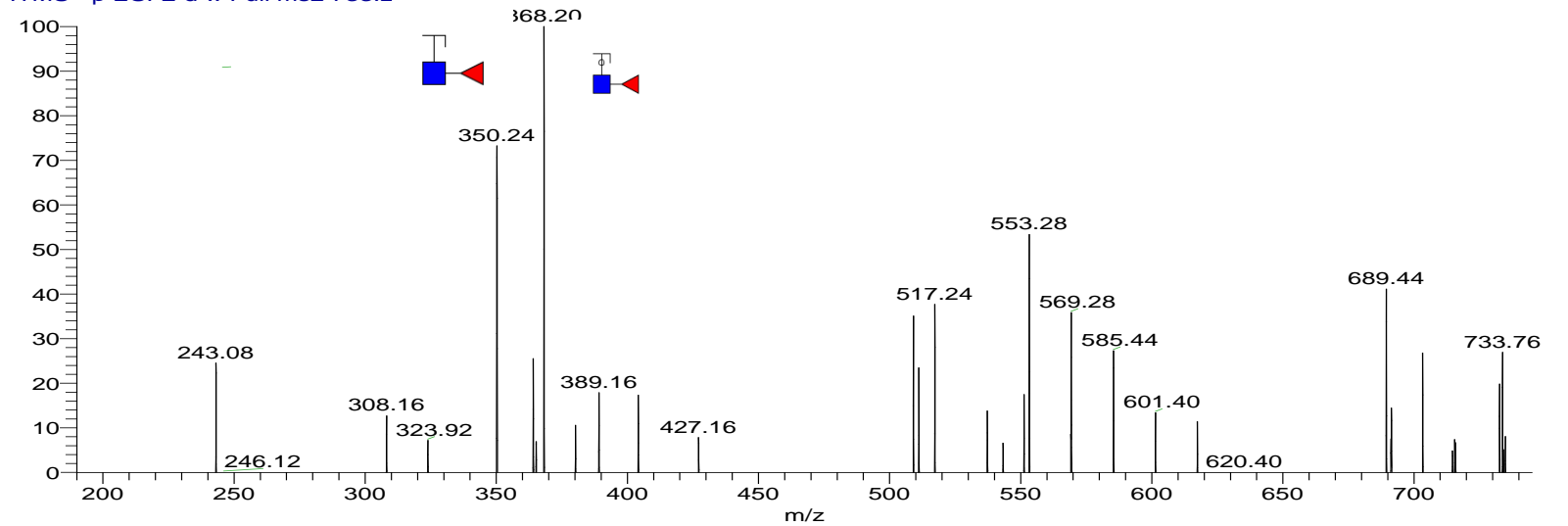


### CID-MS/MS ( $m/z$ 733.27<sup>1-</sup>)

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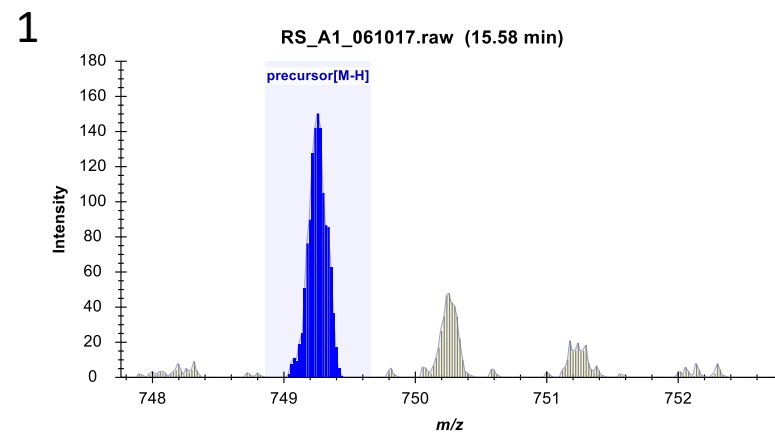
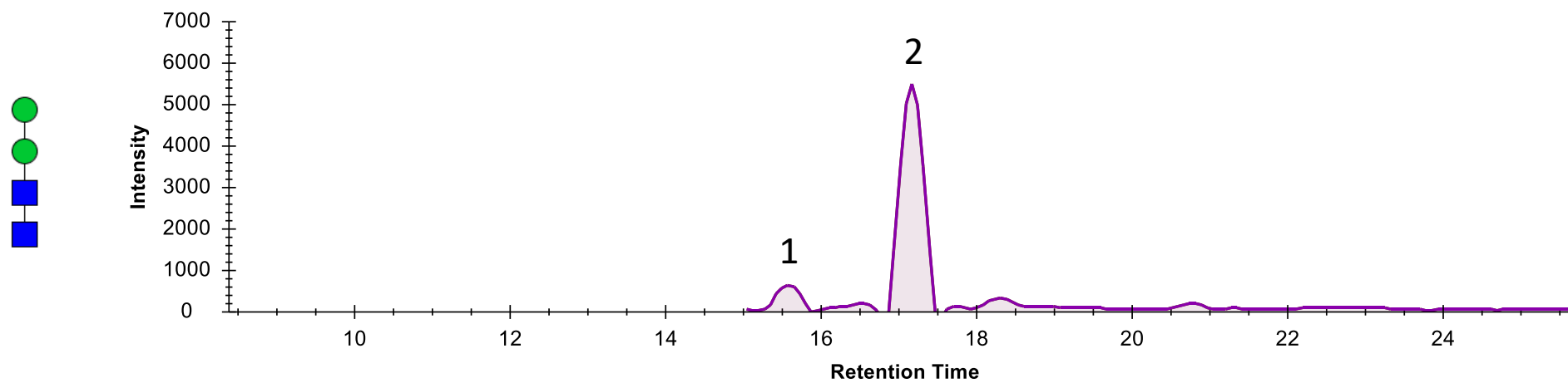
Glycan ID: 3



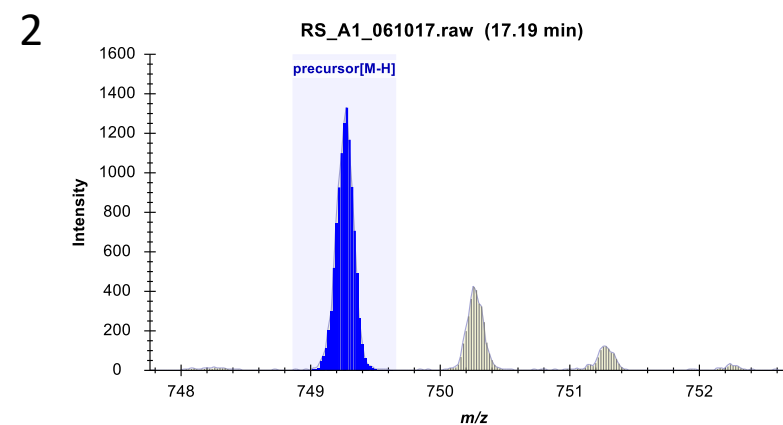
(Hex)<sub>2</sub> (HexNAc)<sub>2</sub>

GlytouCan ID: G13947MP

[M-H]<sup>-</sup> 749.26



4a

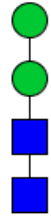


4b

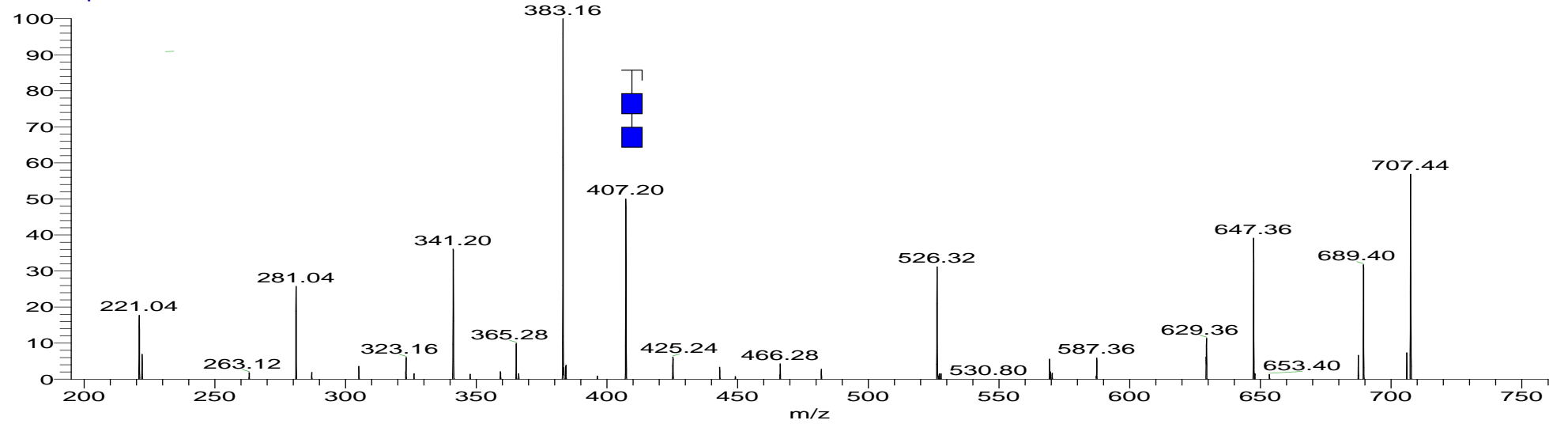
GlytouCan ID: G13947MP

CID-MS/MS  
( $m/z$  749.26<sup>1-</sup>)

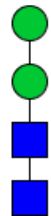
4a



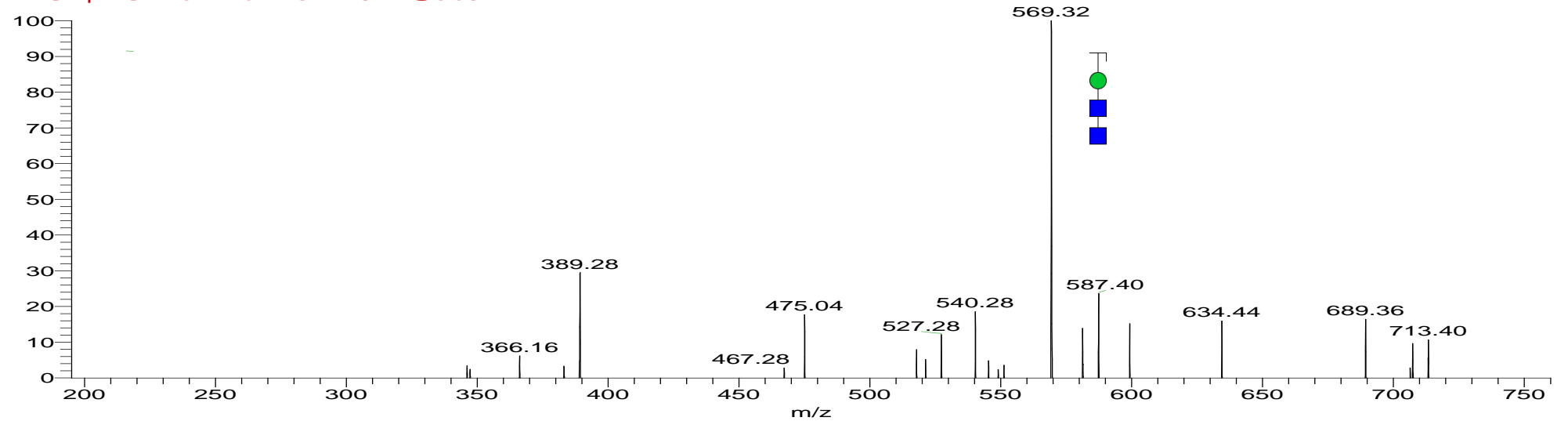
RS\_B1\_061017 #1322 RT: 17.07 AV: 1 NL: 4.92E1  
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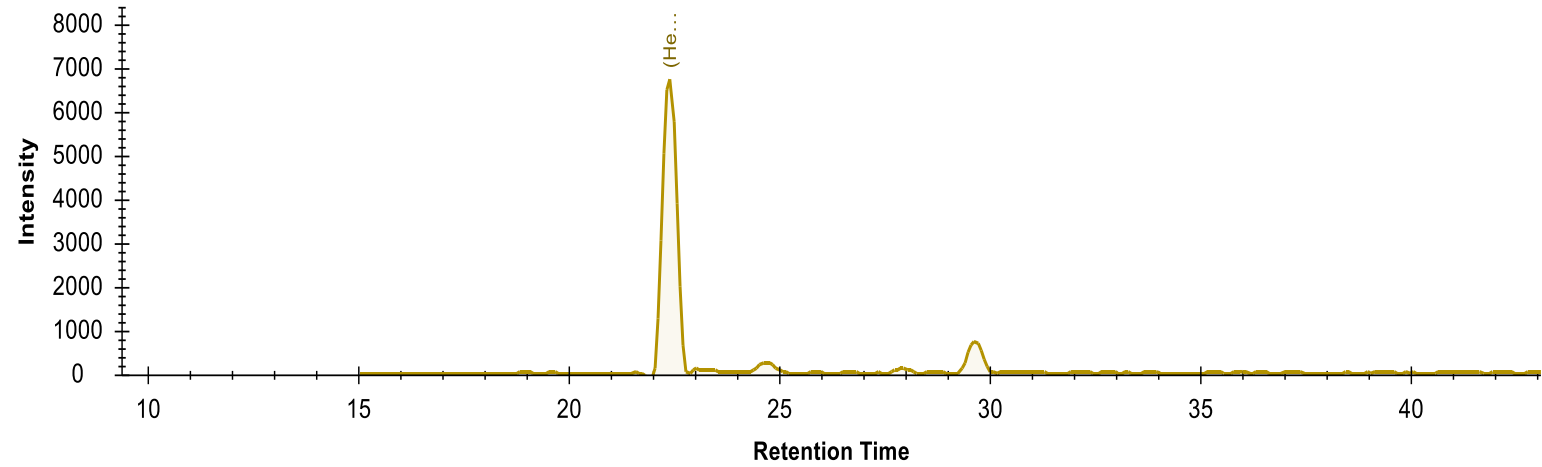
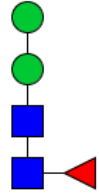
4b



RS\_B1\_061017 #1204 RT: 15.55 AV: 1 NL: 1.65E1  
F: ITMS - p ESI E d w Full ms2 749.24@cid3

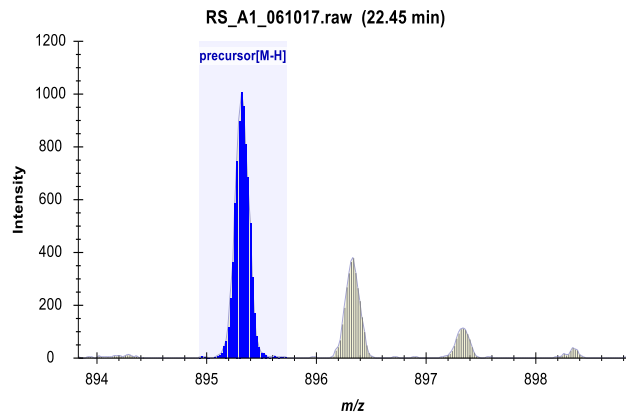


(Hex)<sub>2</sub> (HexNAc)<sub>2</sub> (Deoxyhexose)<sub>1</sub>  
GlytouCan ID: G09088BU  
[M-H]<sup>-</sup> 895.33

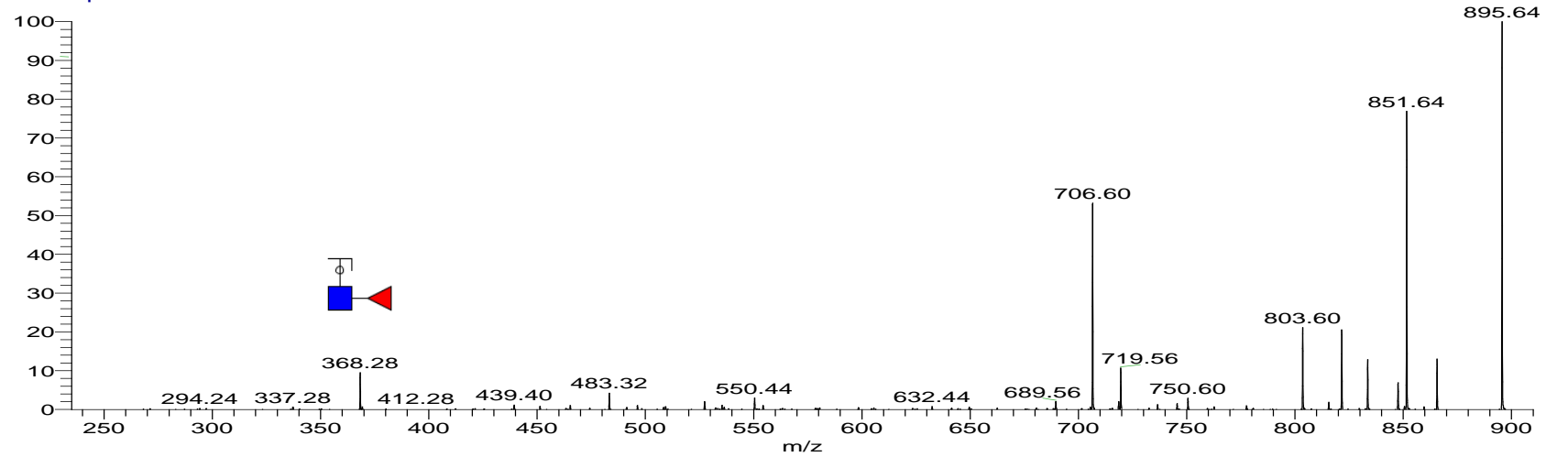


### CID-MS/MS ( $m/z$ 895.53 <sup>1-</sup>)

RS\_B1\_061017 #4676 RT: 63.30 AV: 1 NL: 2.61E3  
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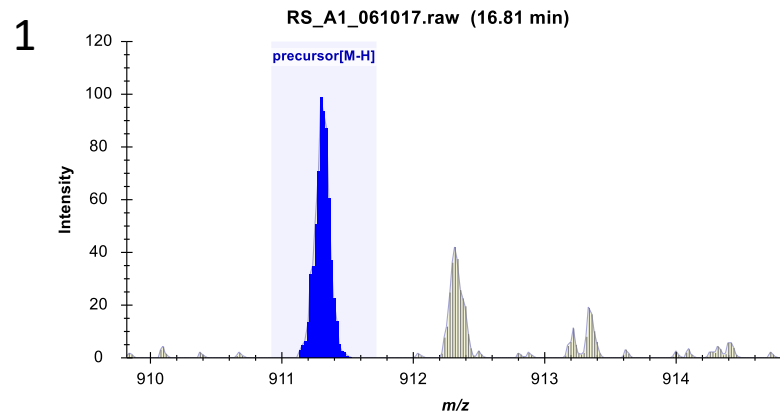
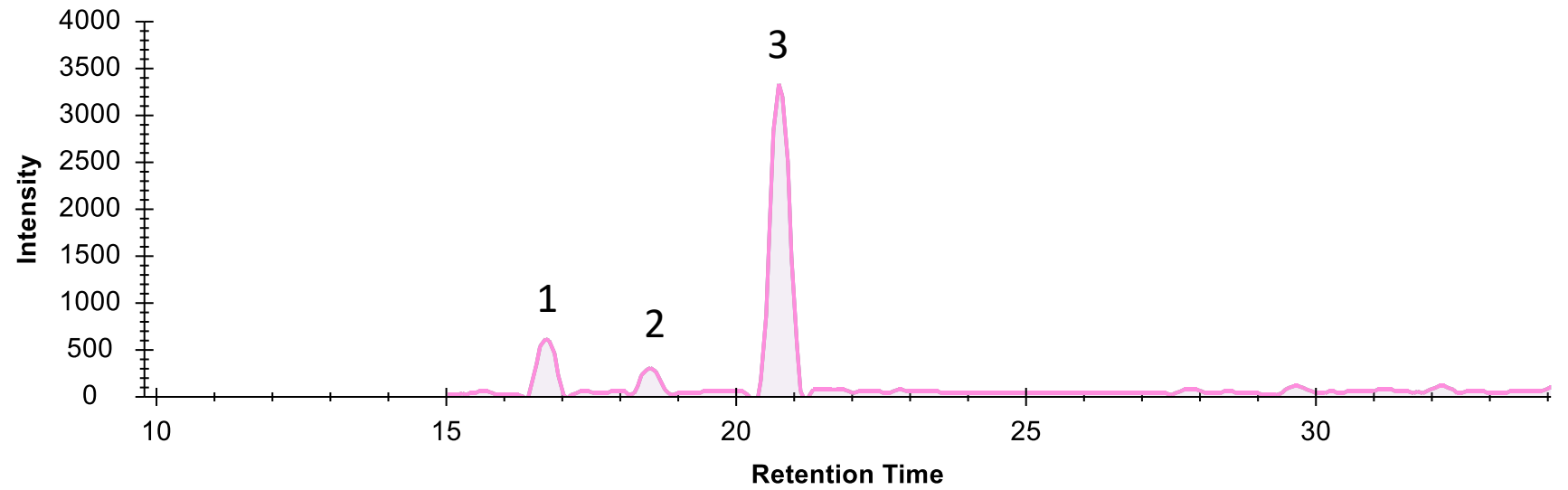
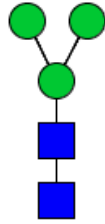
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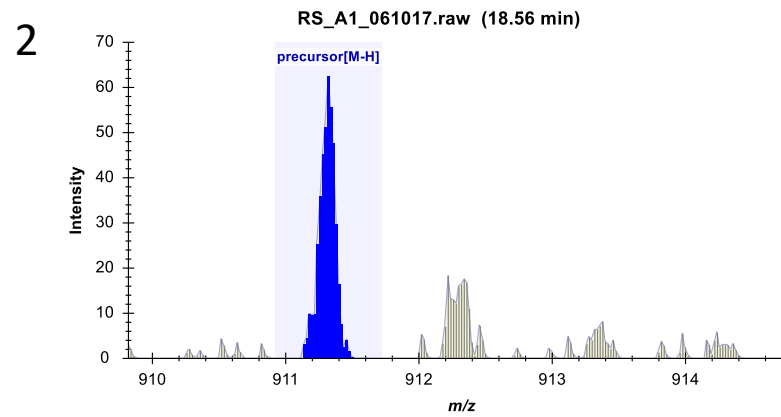
(Hex)3 (HexNAc)2

GlytouCan ID: G62167DK

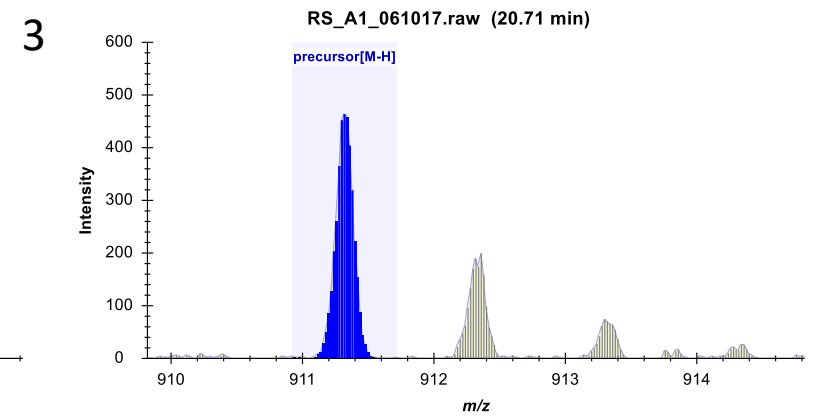
[M-H] 911.32



6a



6b

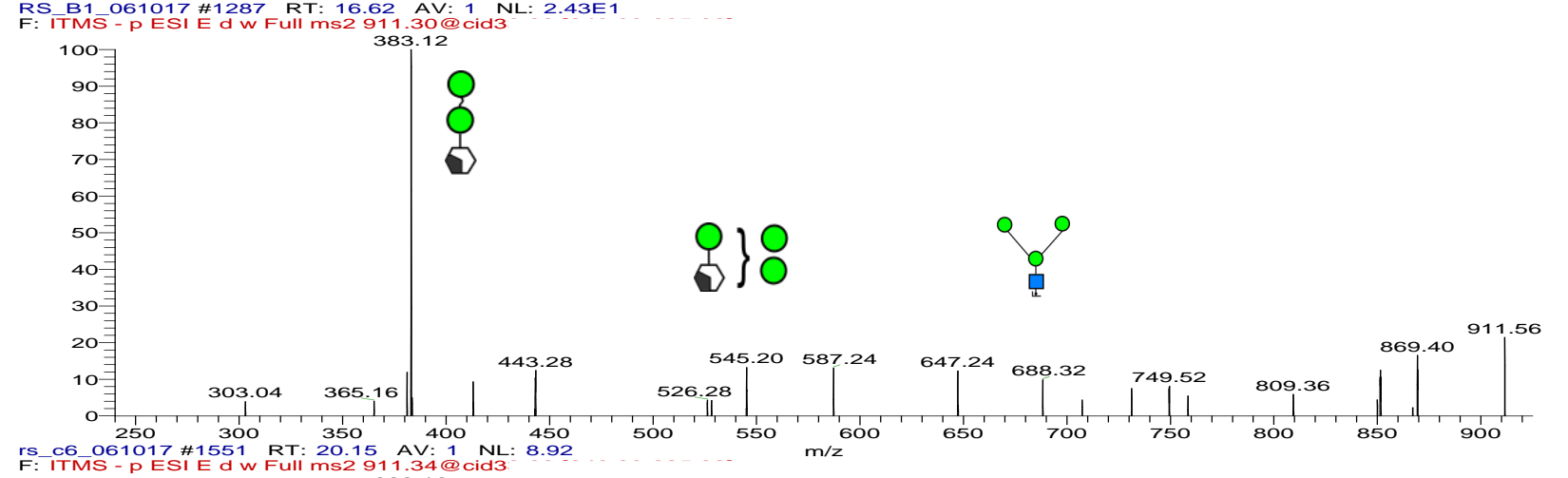
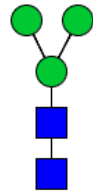


6c

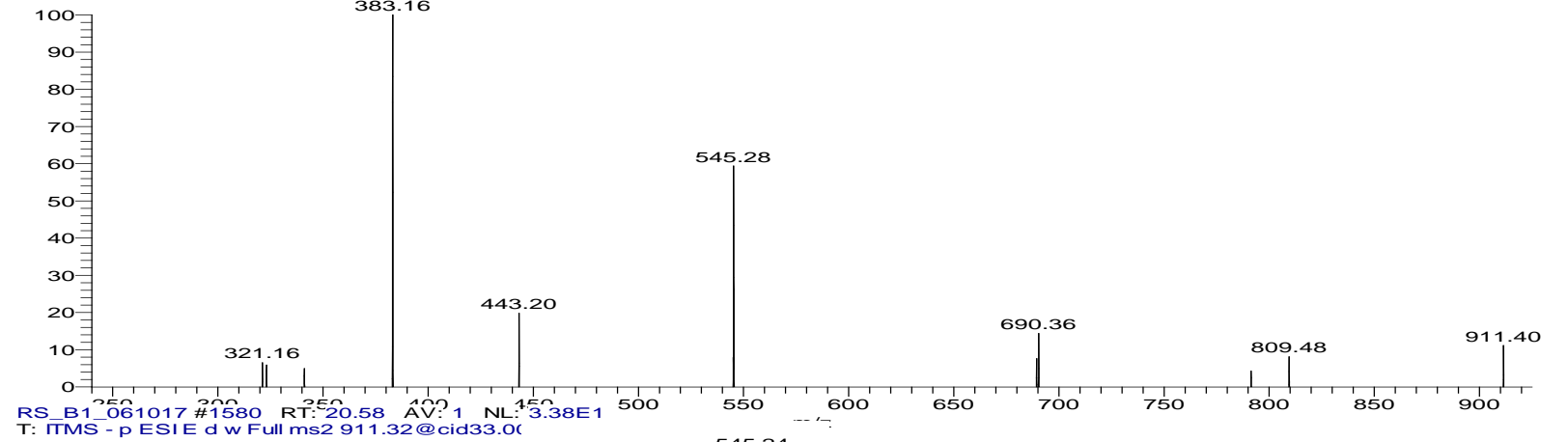
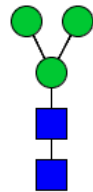
GlytouCan ID: G62167DK

CID-MS/MS  
( $m/z$  911.30<sup>1-</sup>)

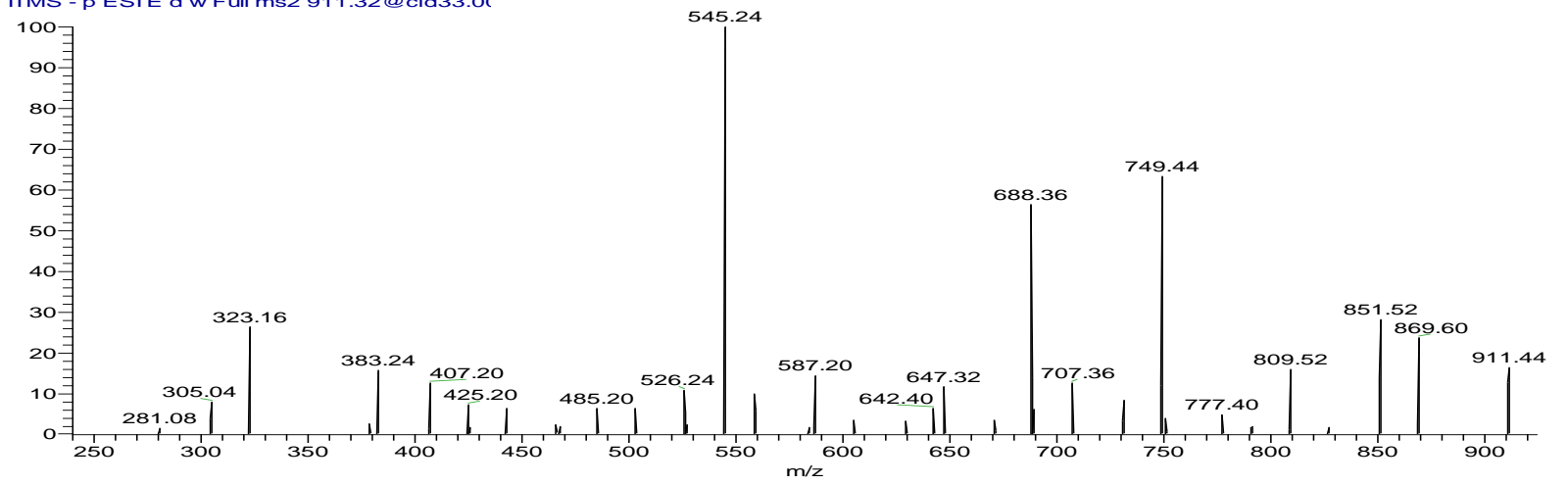
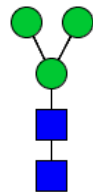
6a



6b



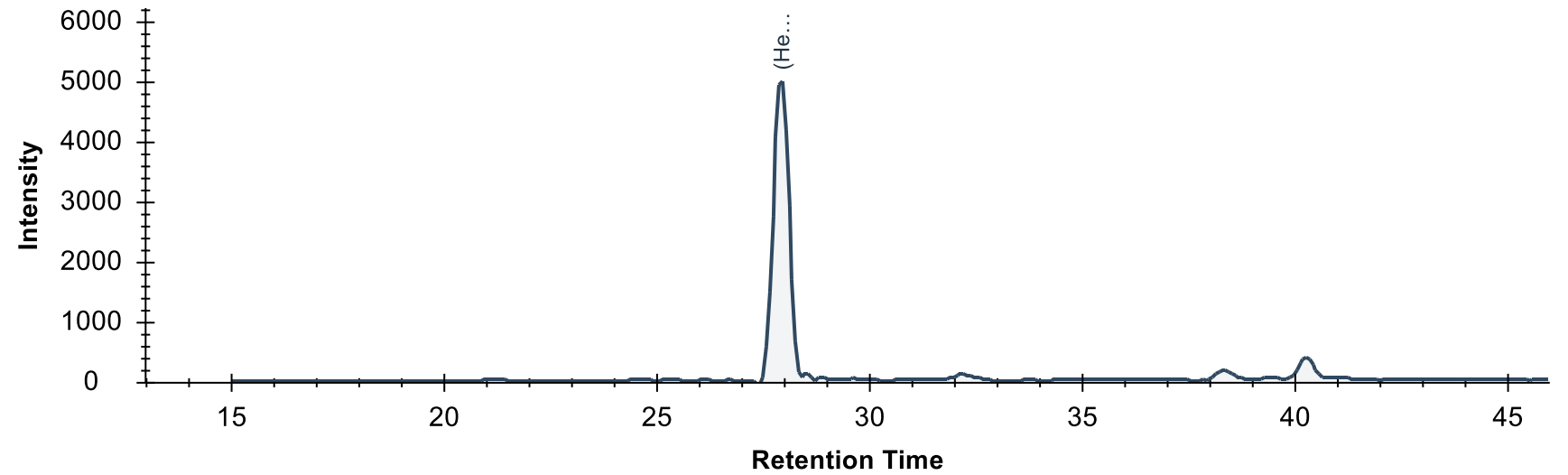
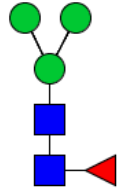
6c



(Hex)3 (HexNAc)2

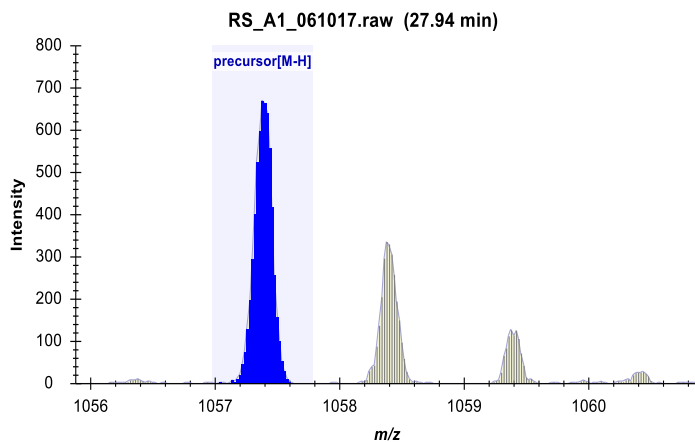
GlytouCan ID: G77712UR

[M-H] 1057.38

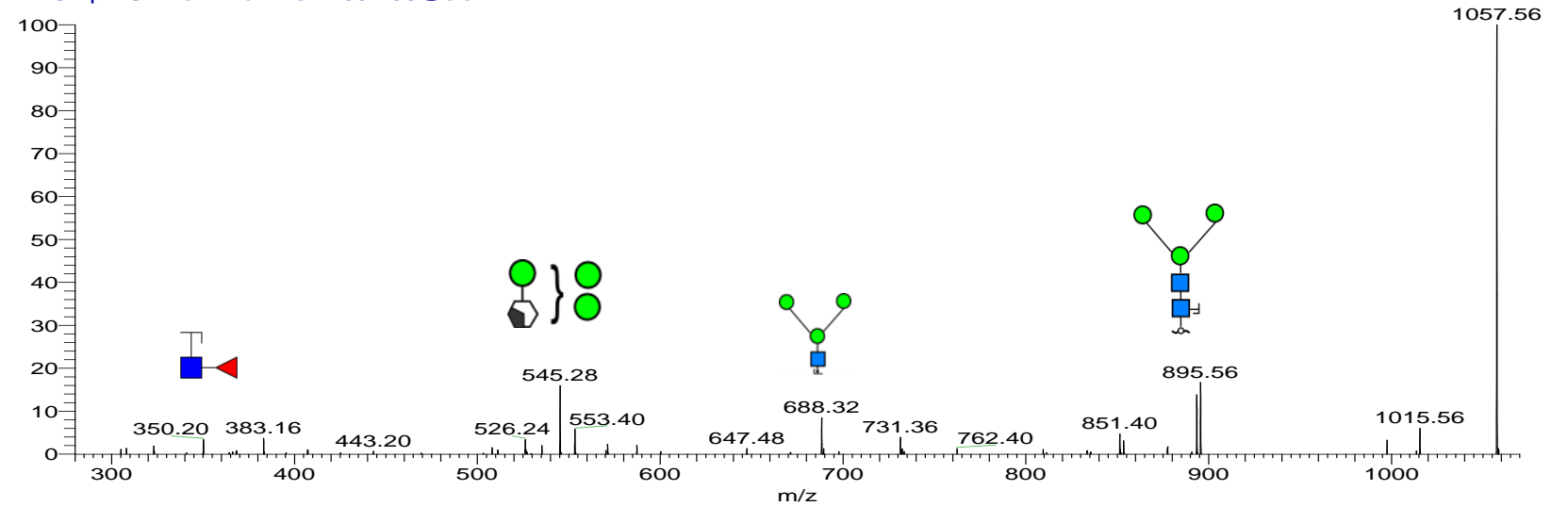


CID-MS/MS ( $m/z$  1057<sup>1-</sup>)

RS\_B1\_061017 #2108 RT: 27.72 AV: 1 NL: 1.87E2  
T: ITMS - p ESI E d w Full ms2 1057.38@cid



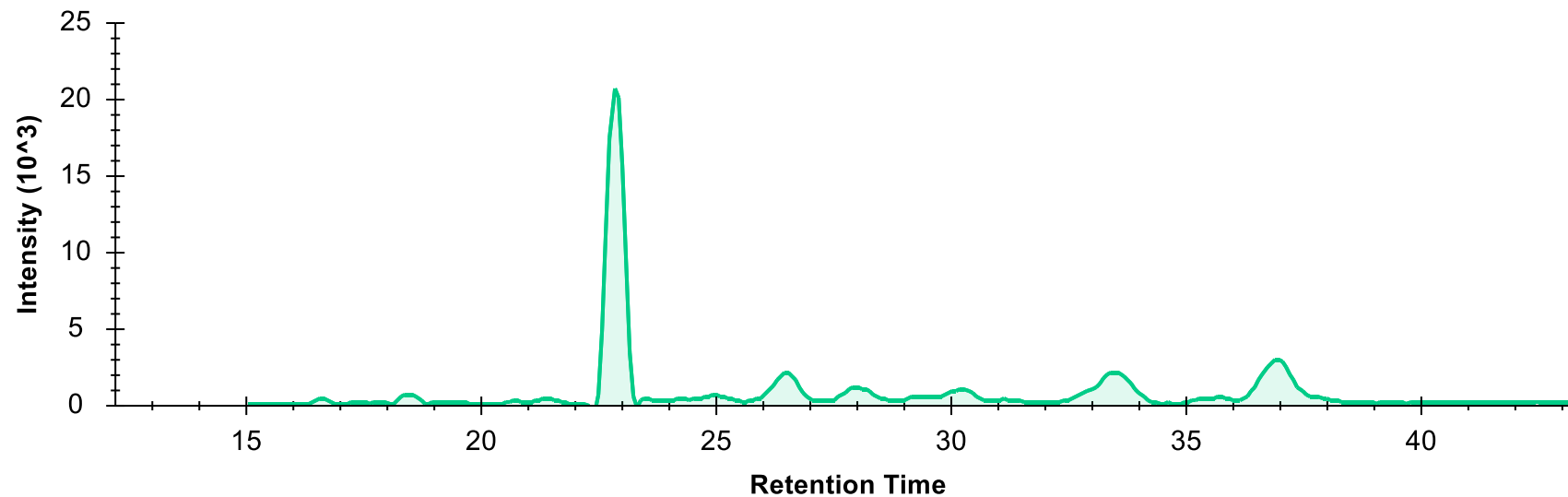
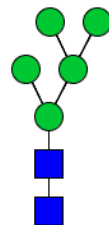
Glycan ID: 7





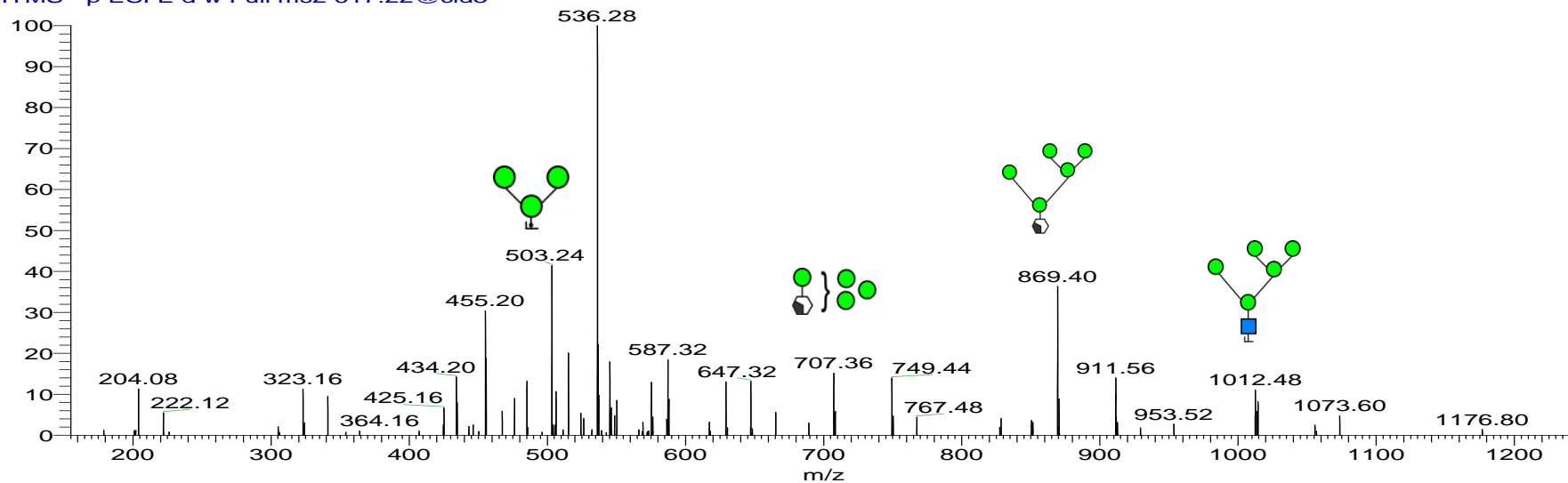
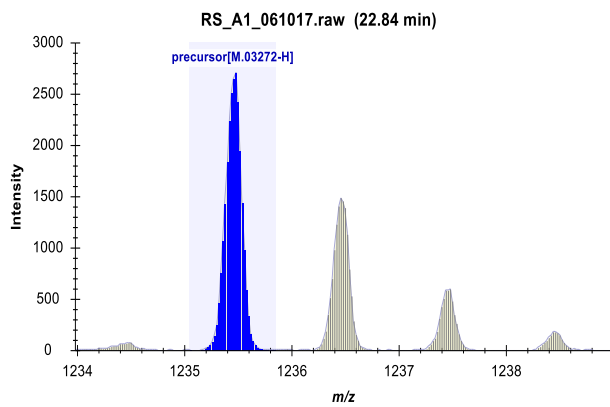
(Hex)<sub>2</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>  
GlytouCan ID: G13974DV

[M-2H] 617.22  
[M-H] 1235.48



CID-MS/MS (*m/z* 617.22<sup>2-</sup>)

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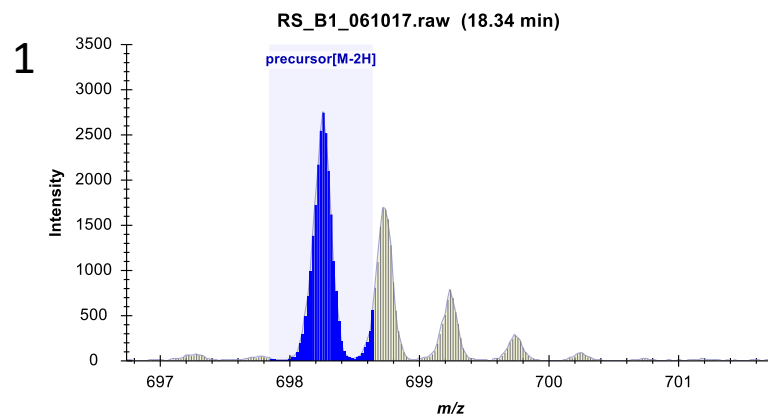
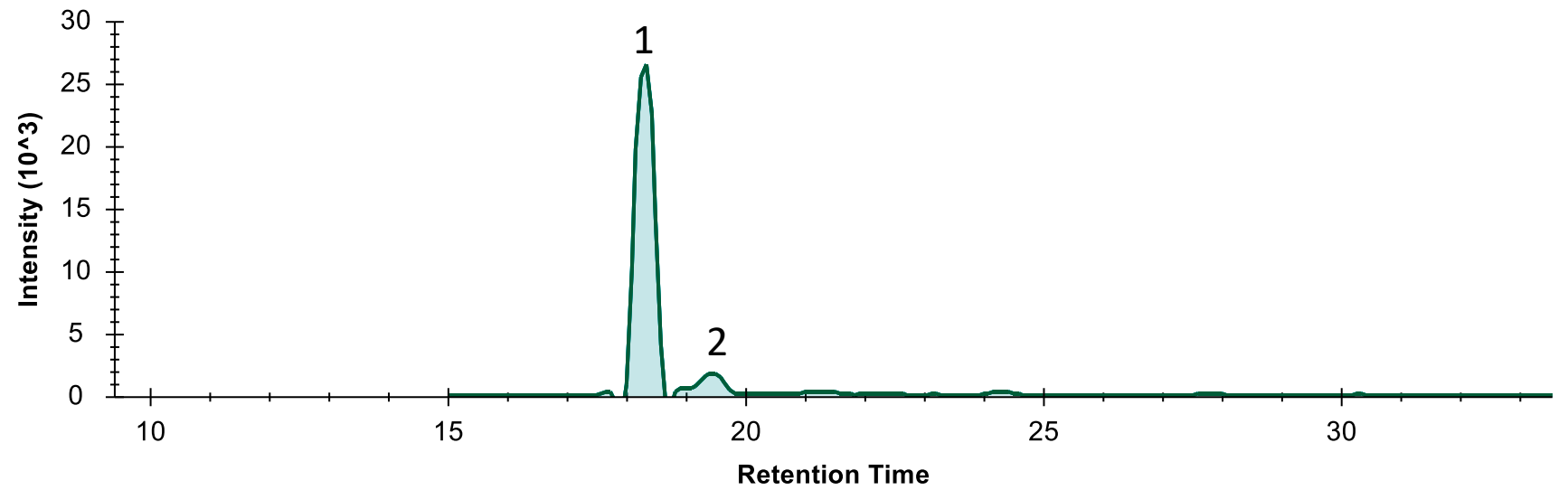
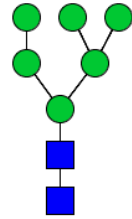


Glycan ID: 8

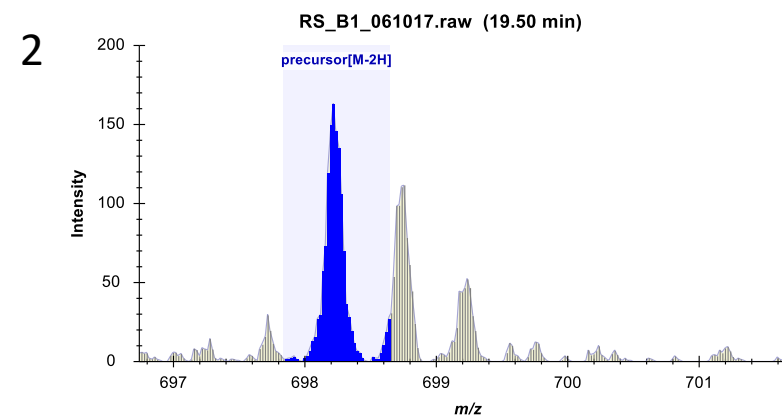
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GlytouCan ID: G19949UL

[M-2H] 698.24  
[M-H] 1397.53



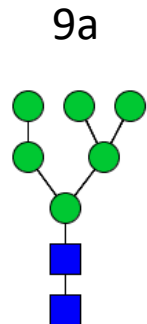
9a



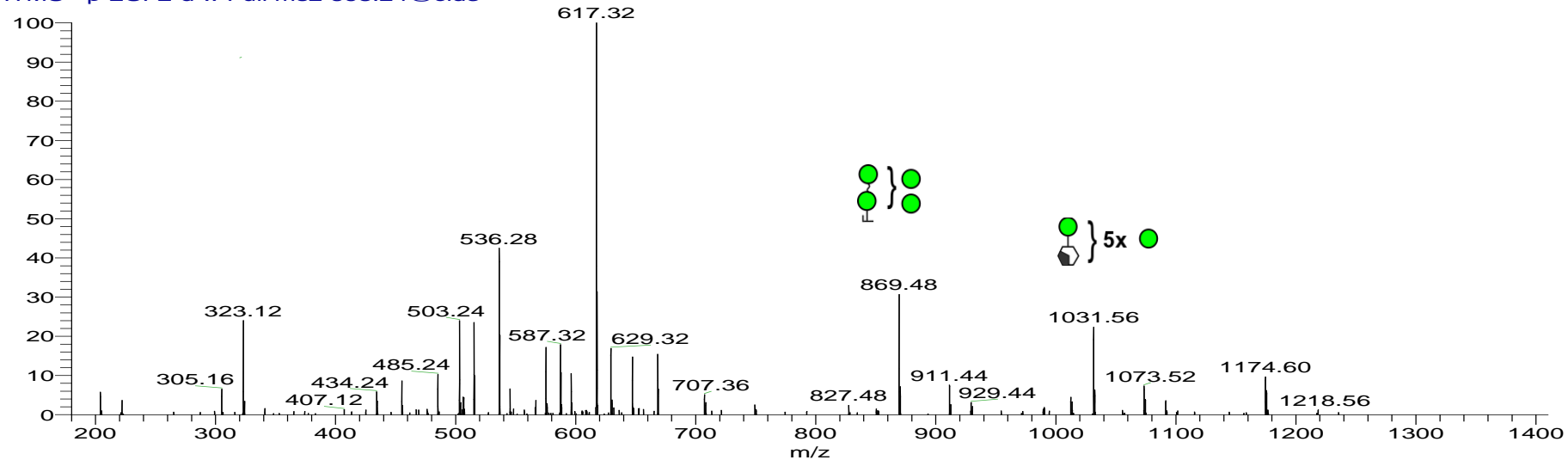
9b

GlytouCan ID: G19949UL

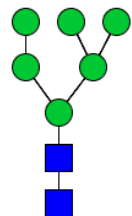
CID-MS/MS  
( $m/z$  698.24<sup>2-</sup>)



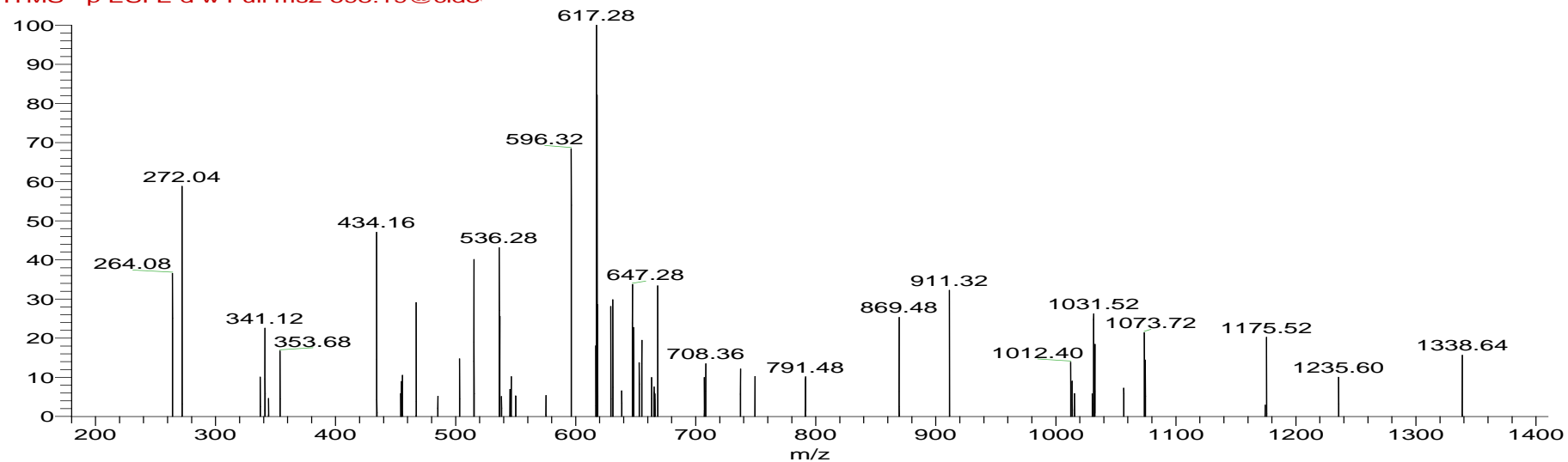
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T: ITMS - p ESI E d w Full ms2 698.24@cid3



9b



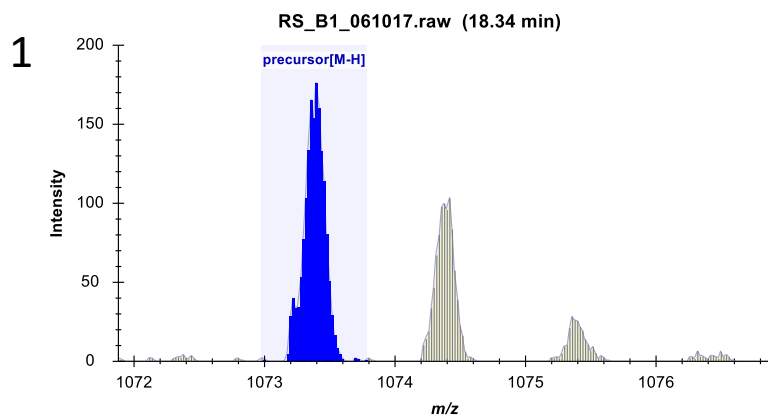
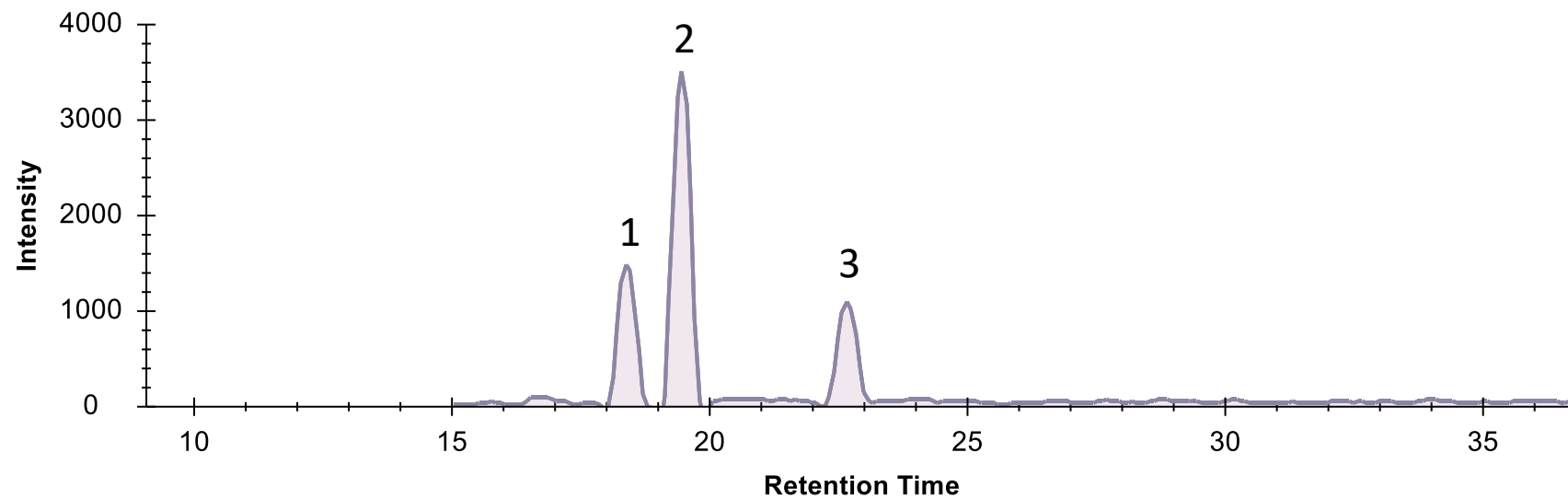
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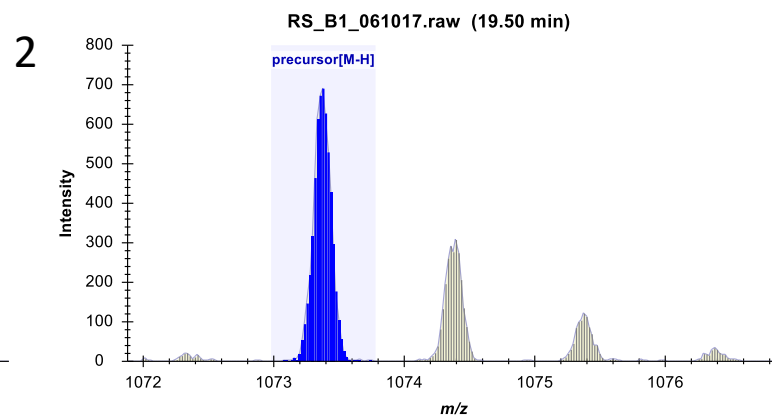
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GlytouCan ID: G92509FK

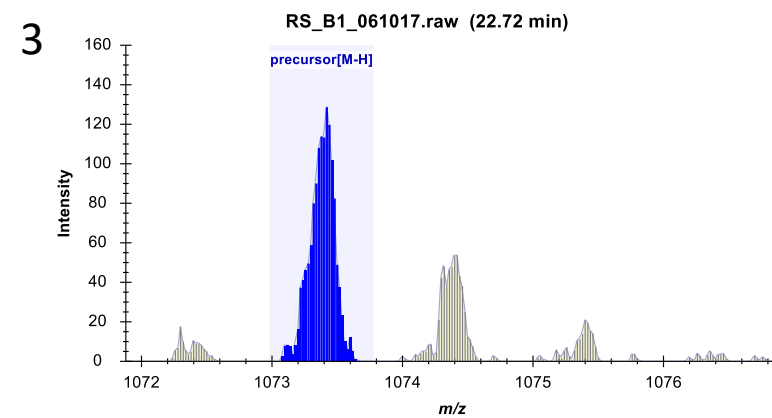
[M-H]<sup>-</sup> 1073.38



10a



10b

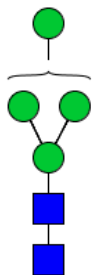


10c

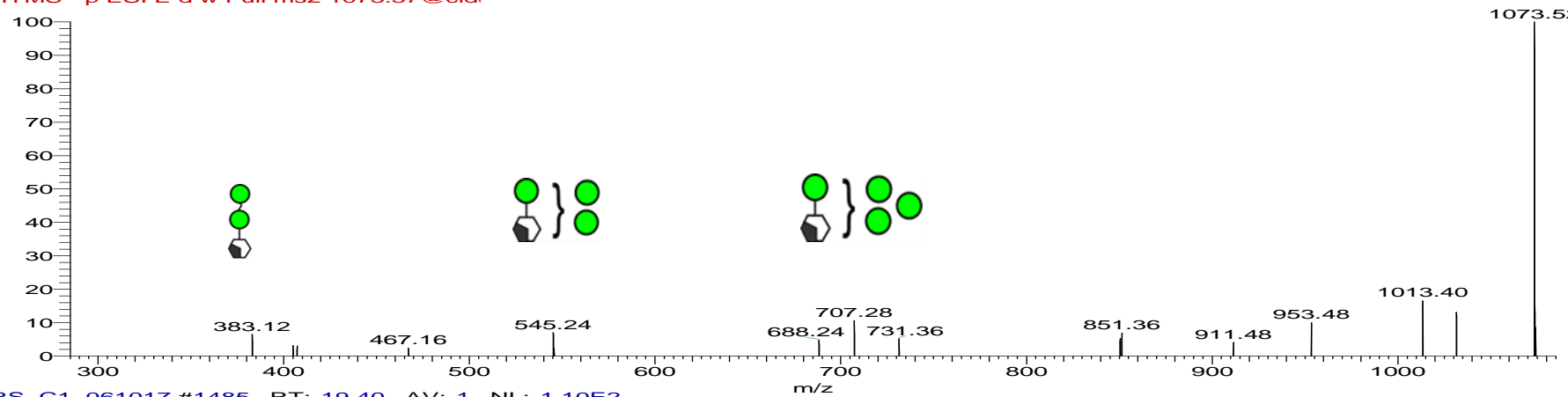
GlytouCan ID: G92509FK

CID-MS/MS  
( $m/z$  1073.37<sup>2-</sup>)

10a

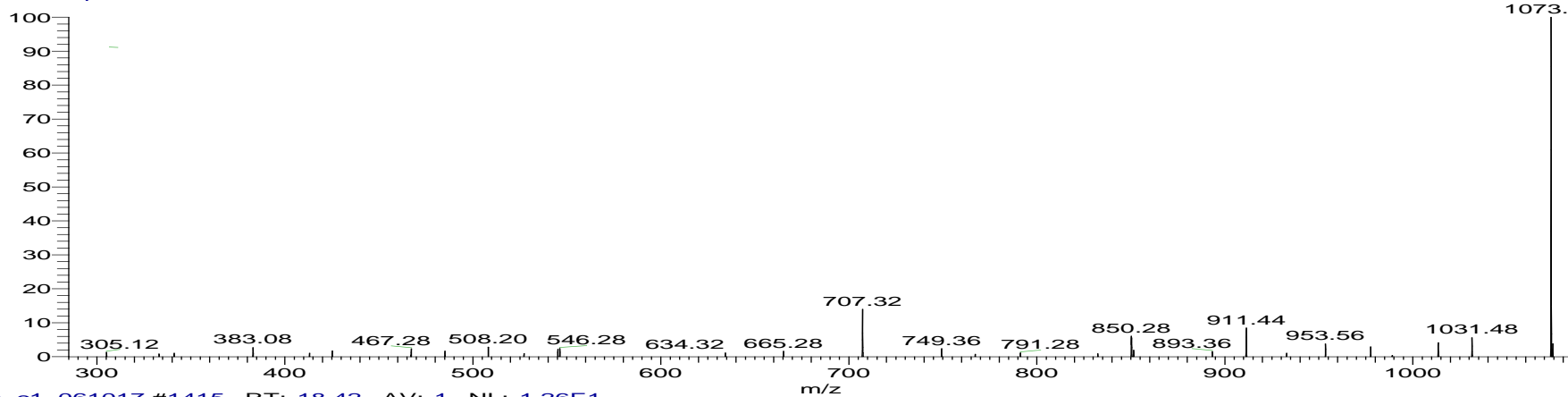
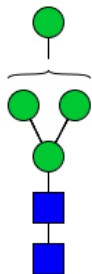


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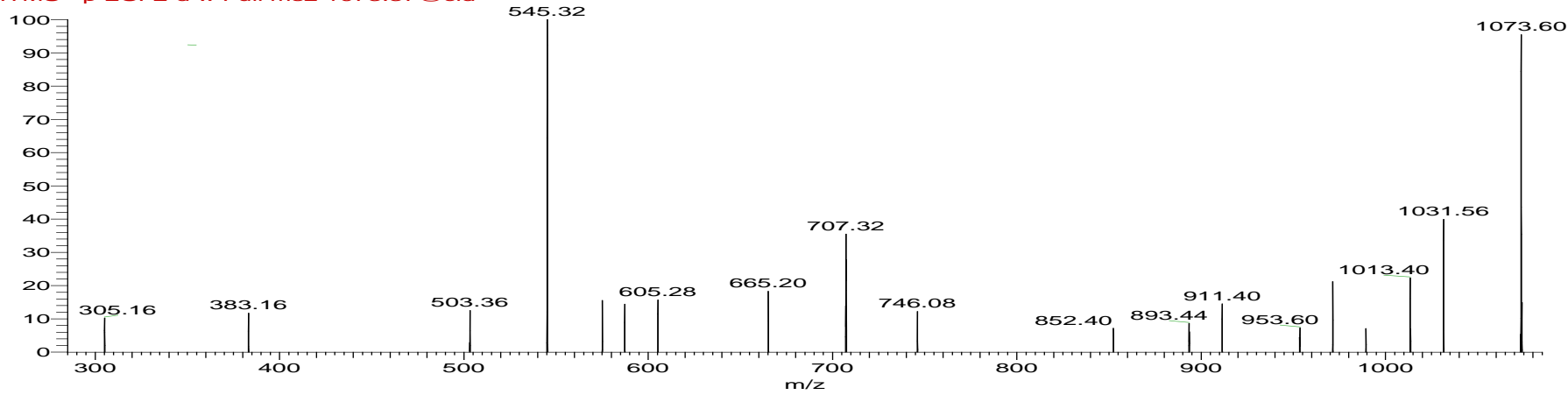
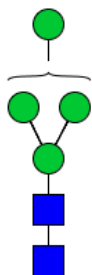
RS\_C1\_061017 #1485 RT: 19.40 AV: 1 NL: 1.10E2  
T: ITMS - p ESI E d w Full ms2 1073.38@cid

10b



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10c

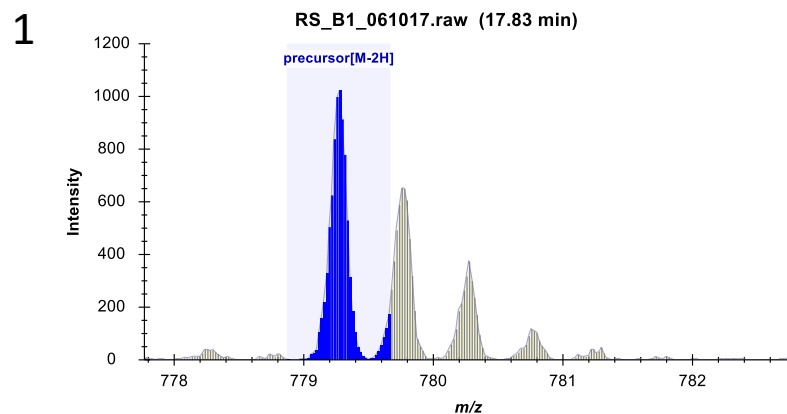
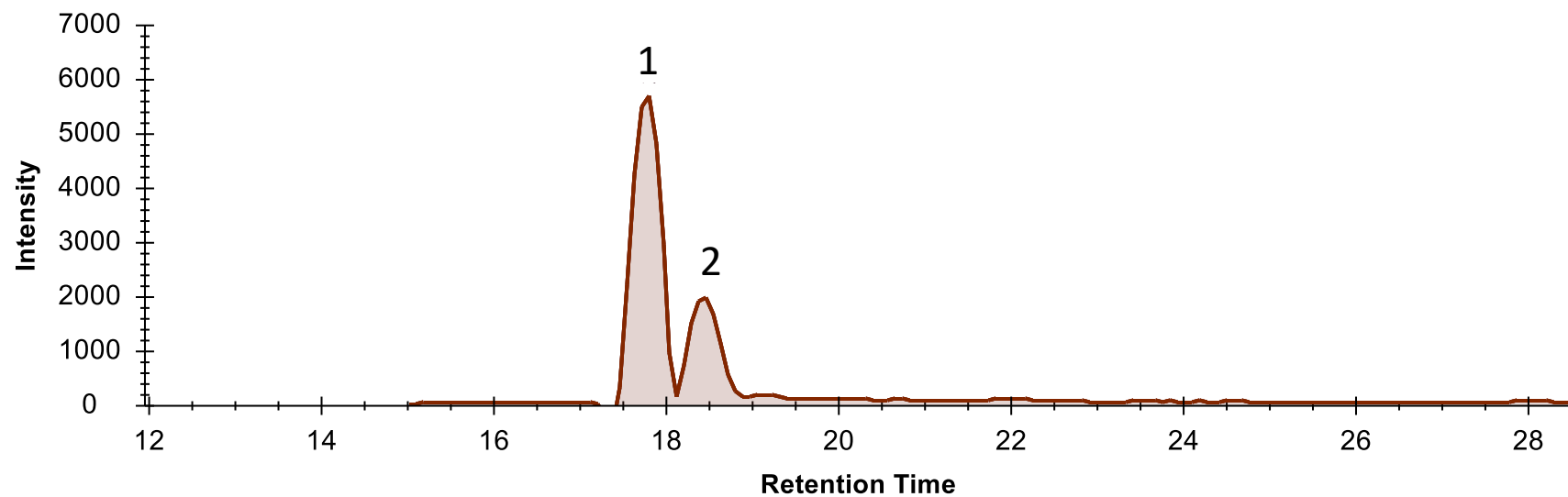
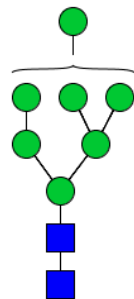


(Hex)4 + (Man)3(GlcNAc)2

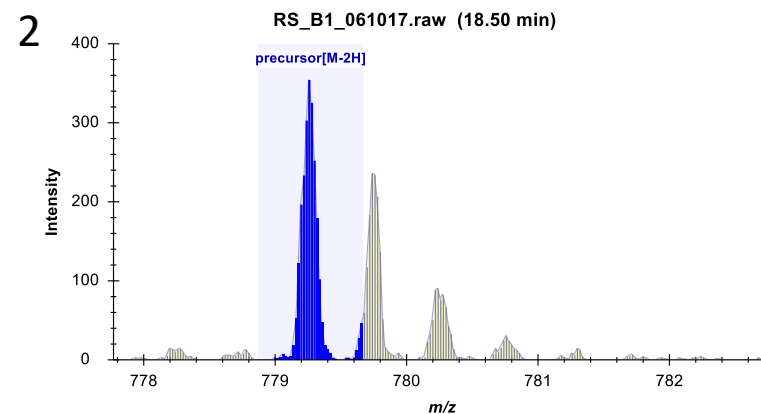
Glytough ID: G13869TL

[M-2H] 779.27

[M-H] 1559.61



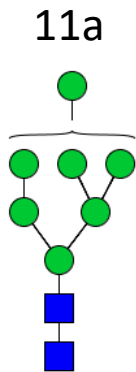
11a



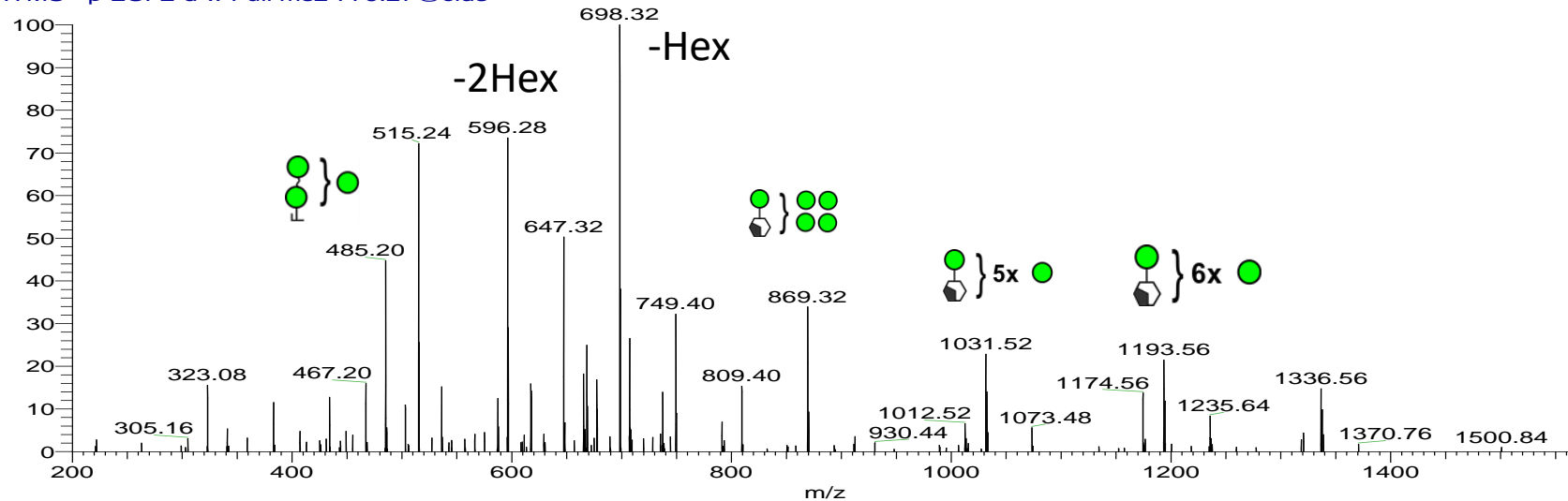
11b

GlytouCan ID: G13869TL

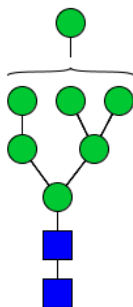
CID-MS/MS  
( $m/z$  779.27<sup>2-</sup>)



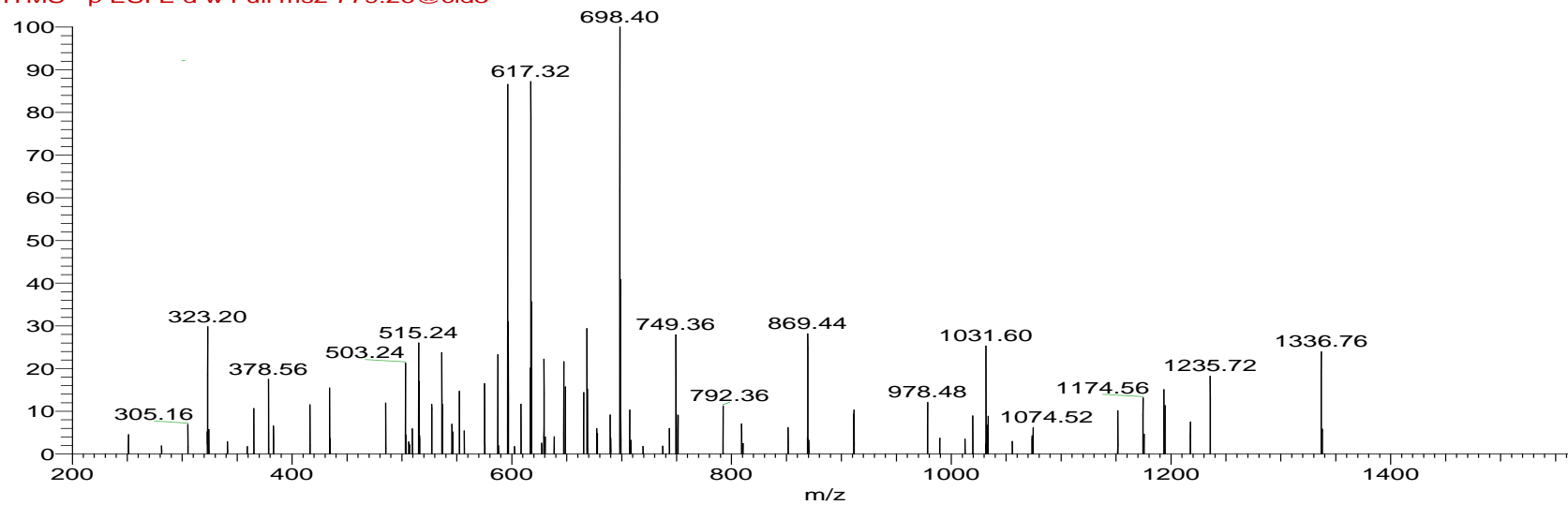
RS\_B1\_061017 #1376 RT: 17.79 AV: 1 NL: 6.50E1  
T: ITMS - p ESI E d w Full ms2 779.27@cid3



11b



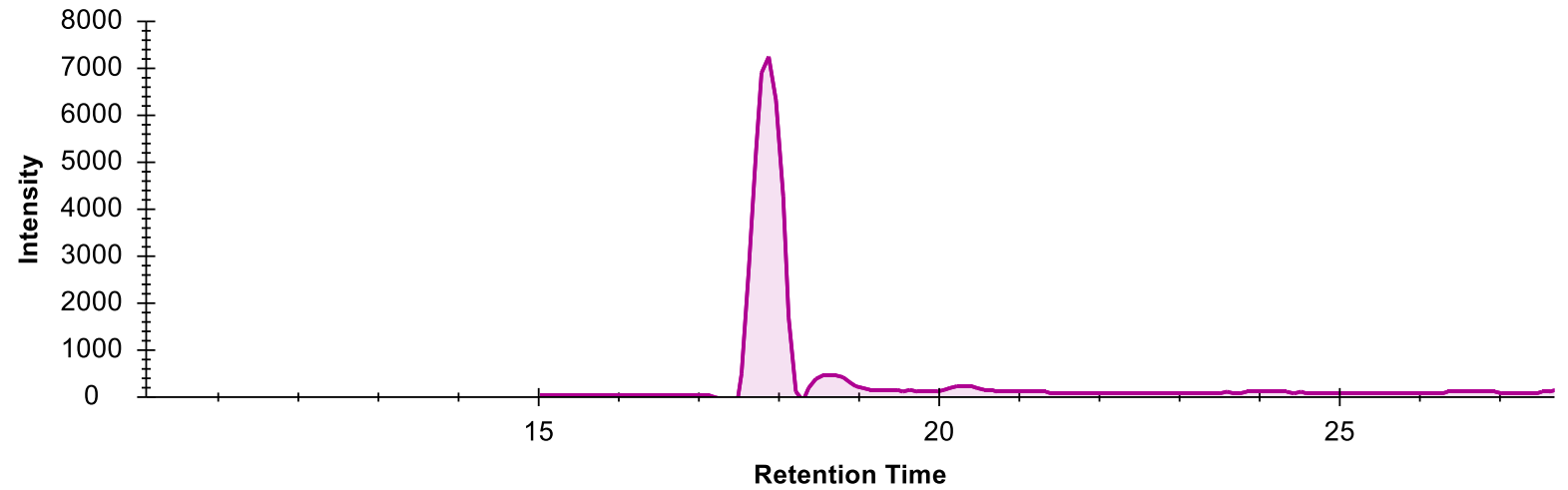
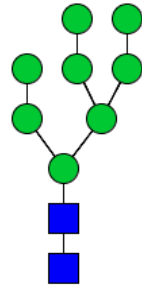
RS\_B1\_061017 #1420 RT: 18.40 AV: 1 NL: 2.71E1  
F: ITMS - p ESI E d w Full ms2 779.26@cid3



(Hex)5 + (Man)3(GlcNAc)2

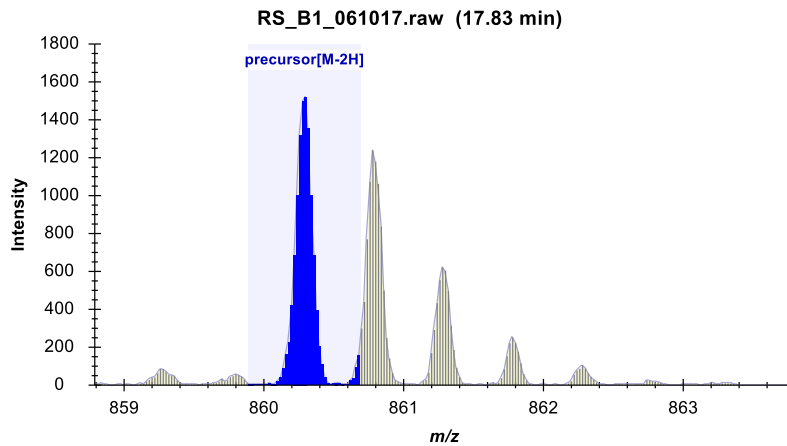
GlytouCan ID: G70358QM

[M-2H] 860.29  
[M-H] 1721.66

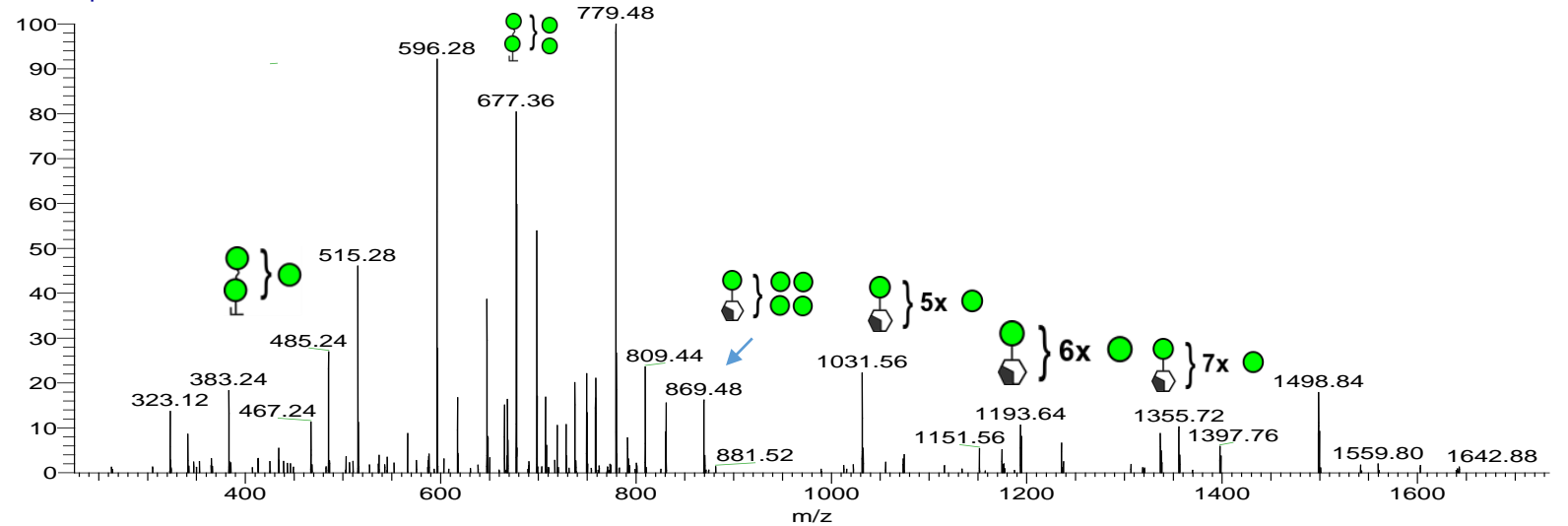


### CID-MS/MS ( $m/z$ 860.29<sup>2-</sup>)

RS\_B1\_061017 #1382 RT: 17.87 AV: 1 NL: 9.68E1  
T: ITMS - p ESI E d w Full ms2 860.29@cid3



Glycan ID: 12

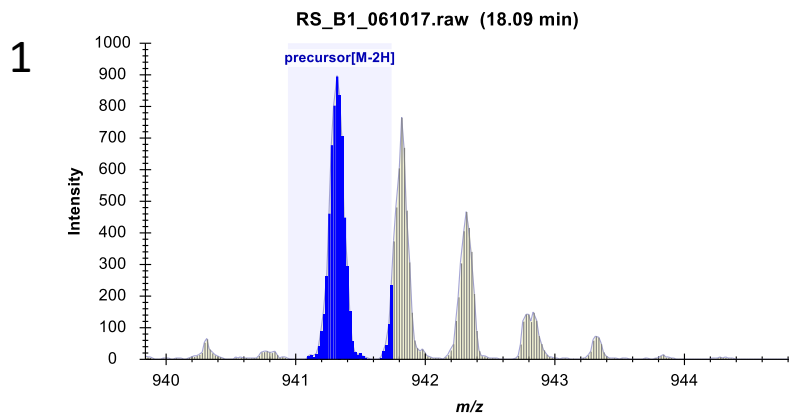
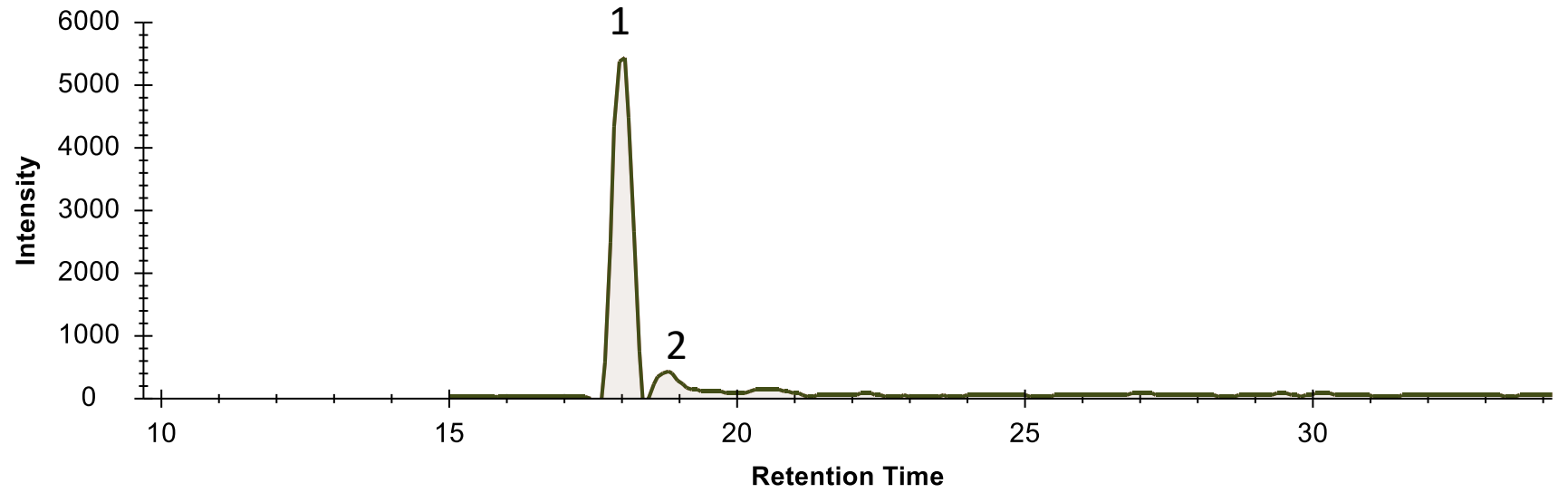
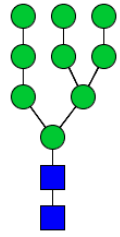




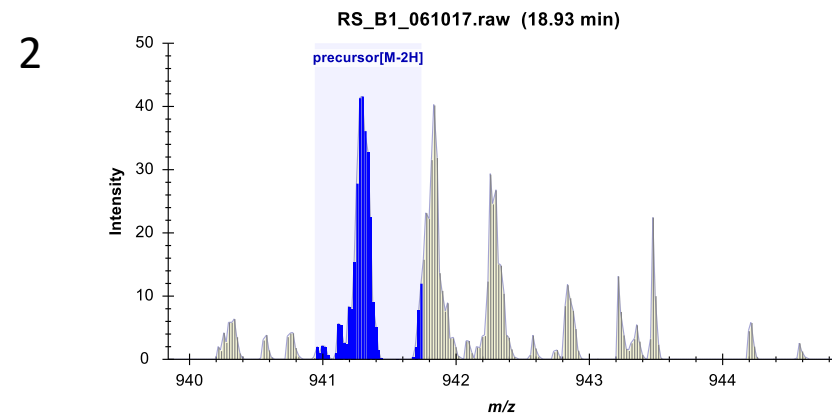
(Hex)<sub>6</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

GlytouCan ID: G66257KQ

[M-2H]<sup>-</sup> 941.34



13a



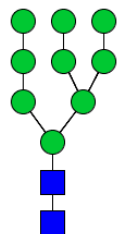
13b

GlytouCan ID: G66257KQ

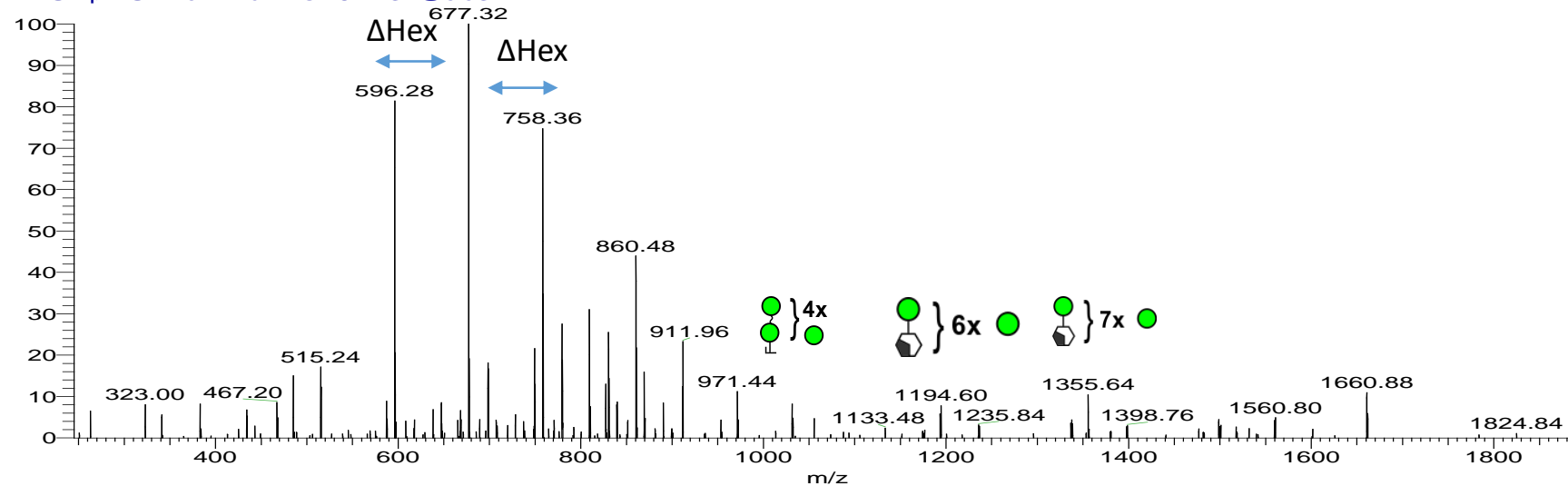
CID-MS/MS

( $m/z$  941.34  $^{2-}$ )

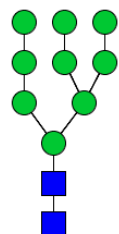
13a



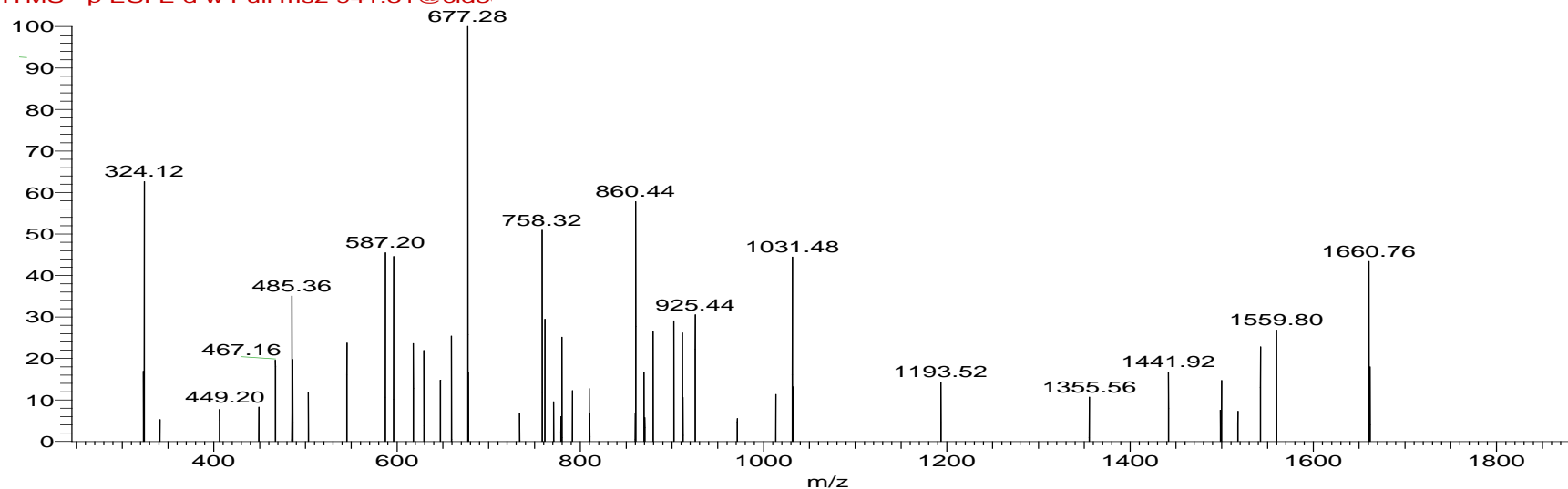
RS\_B1\_061017 #1394 RT: 18.04 AV: 1 NL: 9.77E1  
T: ITMS - p ESI E d w Full ms2 941.34@cid3



13b



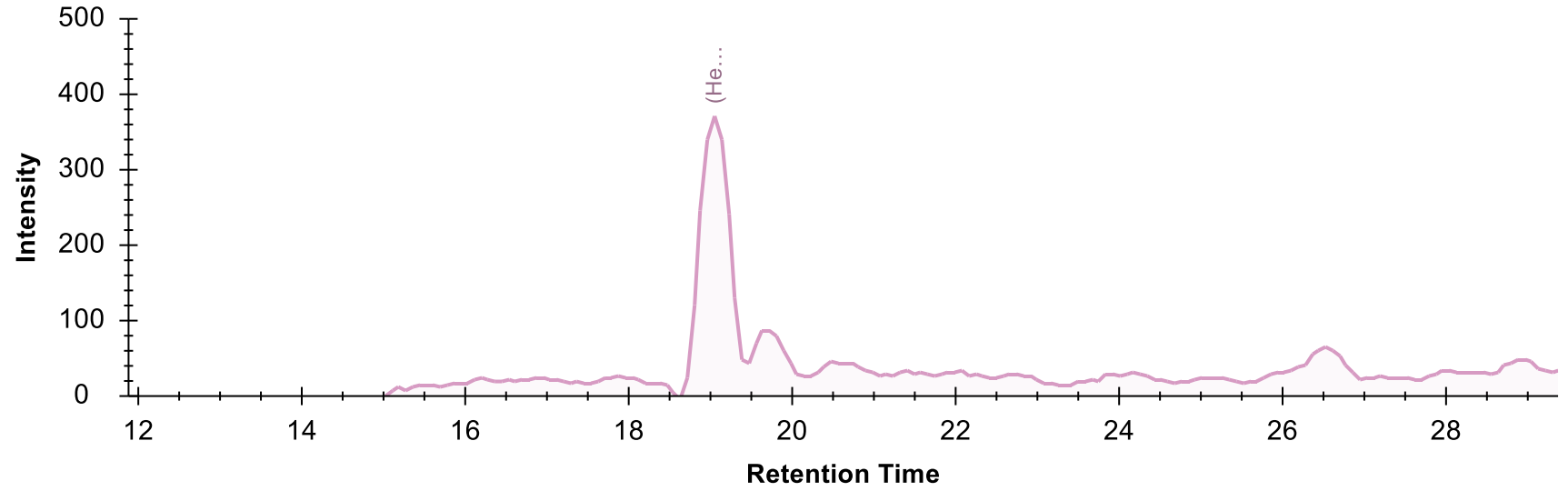
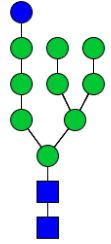
rs\_b1\_061017 #1451 RT: 18.82 AV: 1 NL: 8.86  
F: ITMS - p ESI E d w Full ms2 941.31@cid3



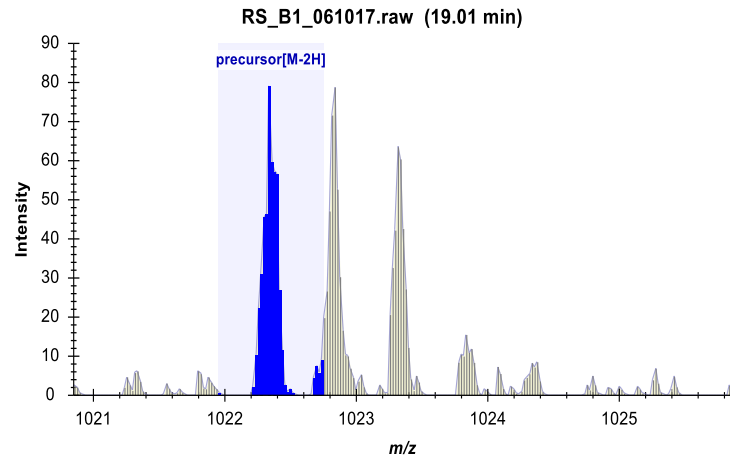
(Hex)7 + (Man)3(GlcNAc)2

GlytouCan ID: G19763QB

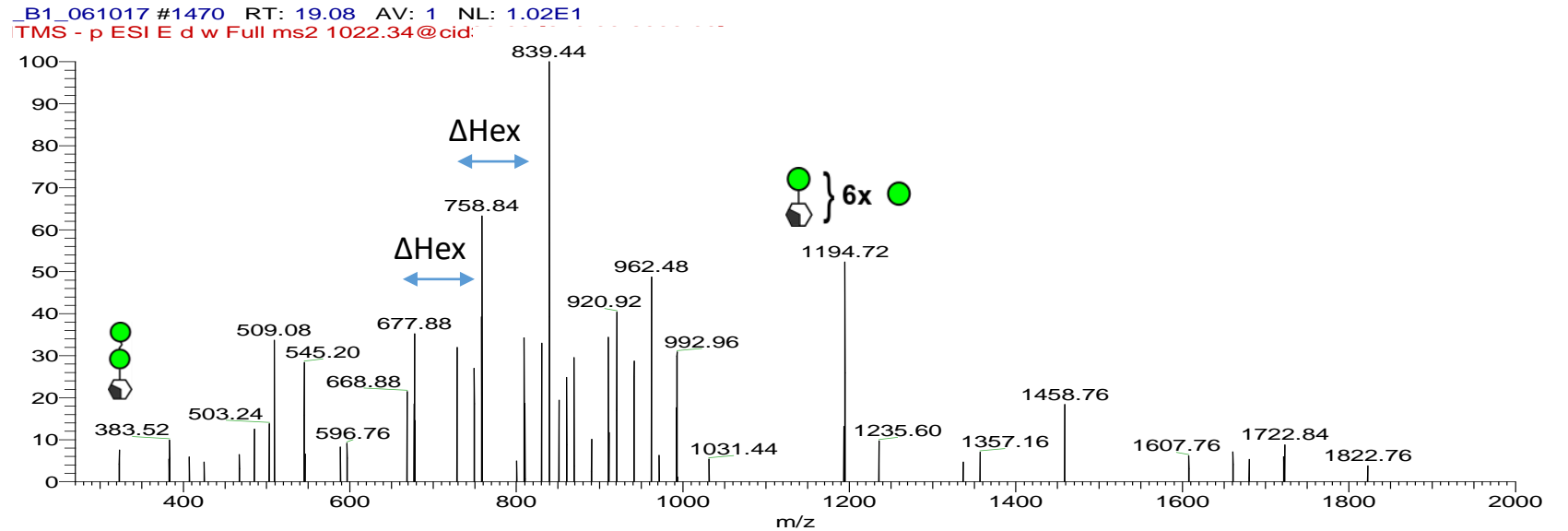
[M-2H] 1022.35



### CID-MS/MS ( $m/z$ 1022.34<sup>2-</sup>)



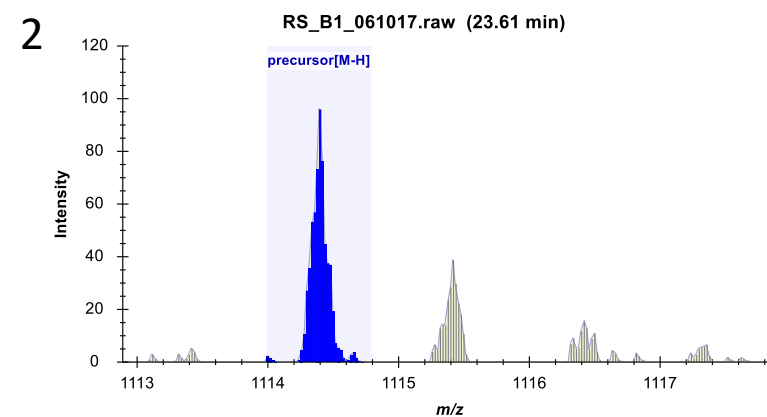
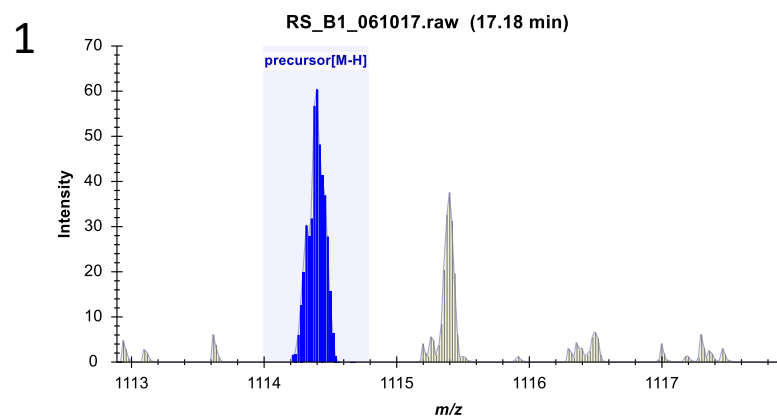
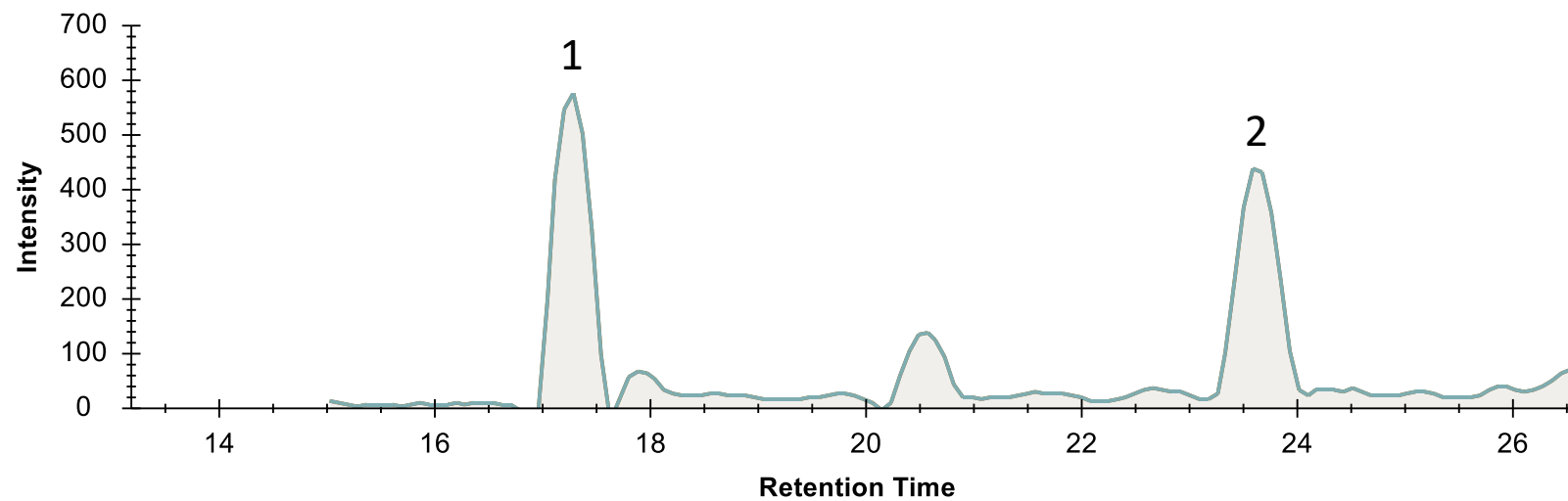
Glycan ID: 14



(HexNAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

No Glytougan ID

[M-H]<sup>-</sup> 1114.39

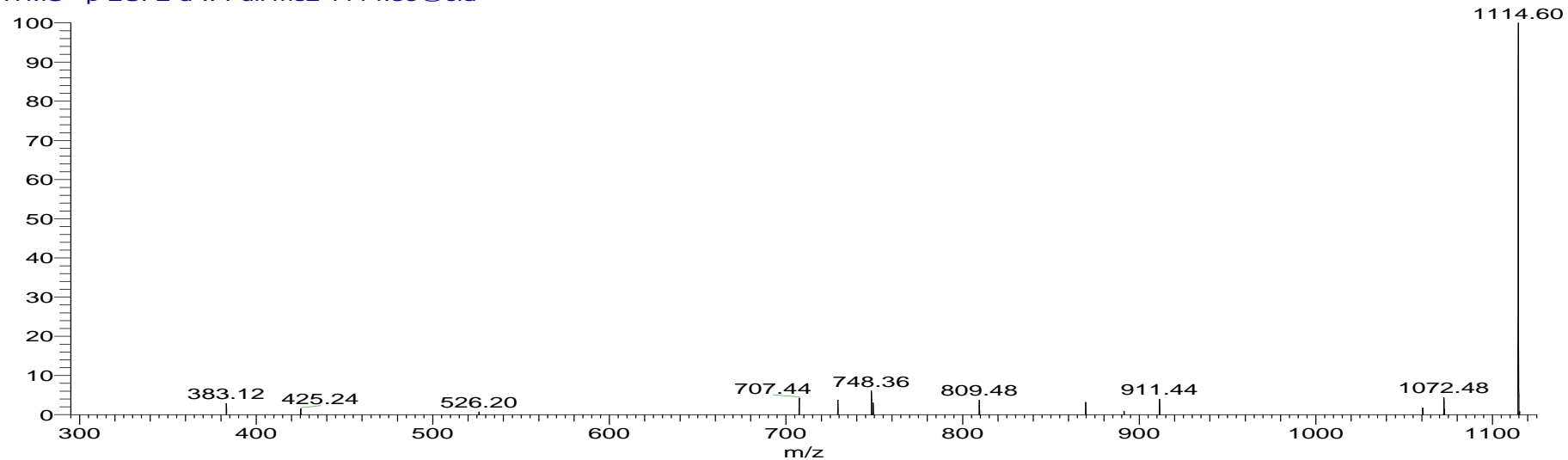


CID-MS/MS  
( $m/z$  1114.40<sup>1-</sup>)

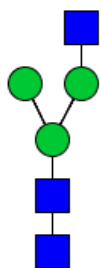
15a



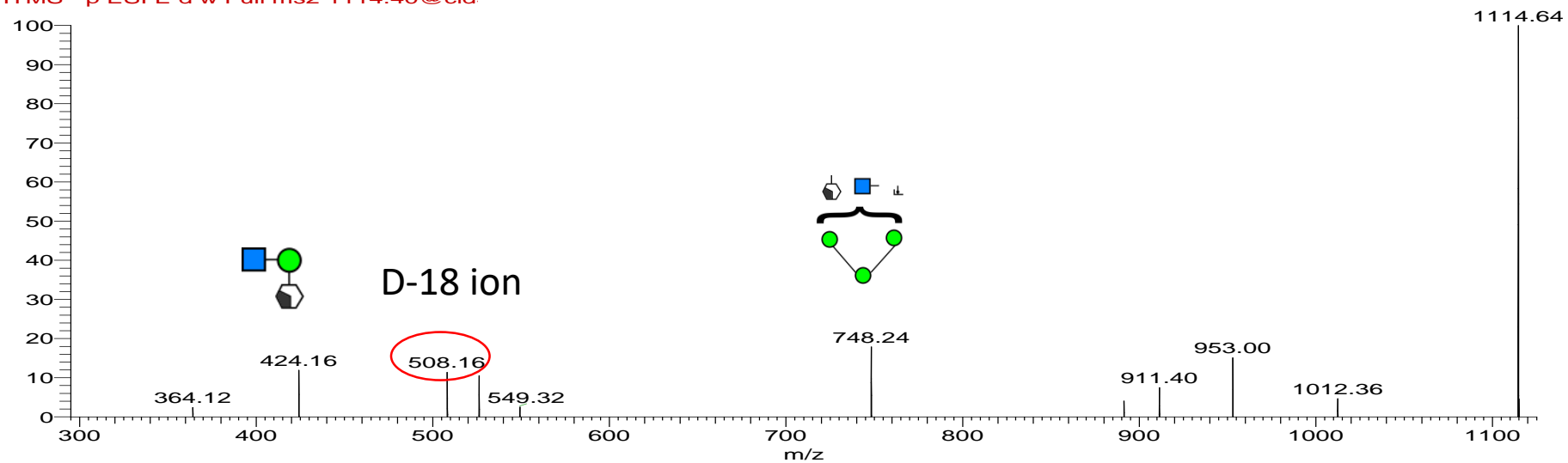
RS\_H1\_061017 #1322 RT: 17.25 AV: 1 NL: 5.81E1  
T: ITMS - p ESI E d w Full ms2 1114.39@cid



15b



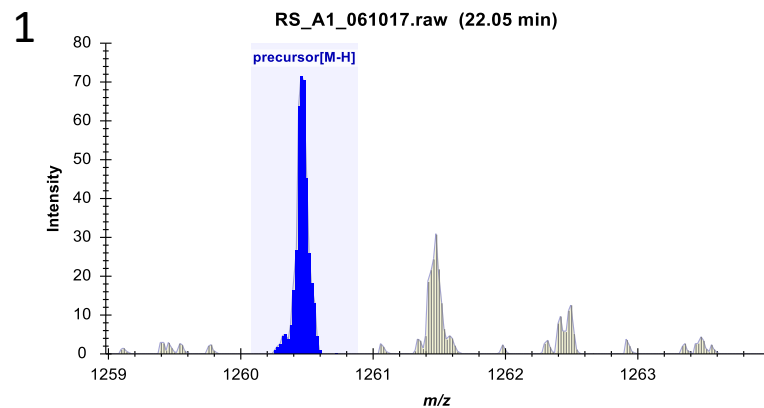
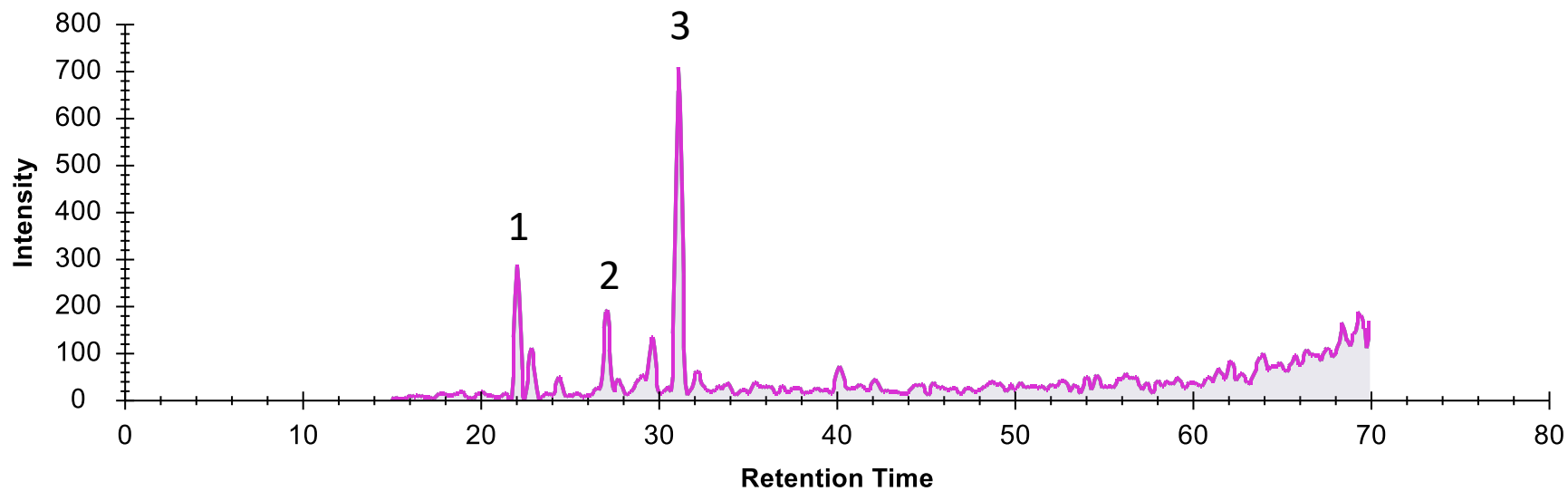
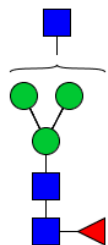
RS\_B1\_061017 #1806 RT: 23.60 AV: 1 NL: 1.48E1  
F: ITMS - p ESI E d w Full ms2 1114.40@cid



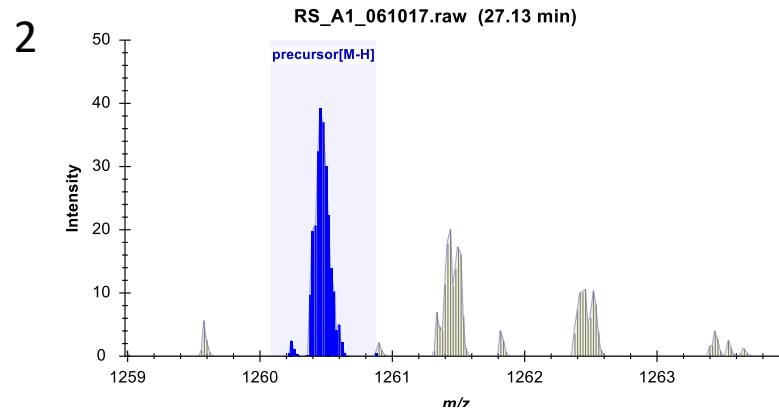
(HexNAc)1 (Deoxyhexose)1 + (Man)3(GlcNAc)2

GlytouCan ID: G27314YB

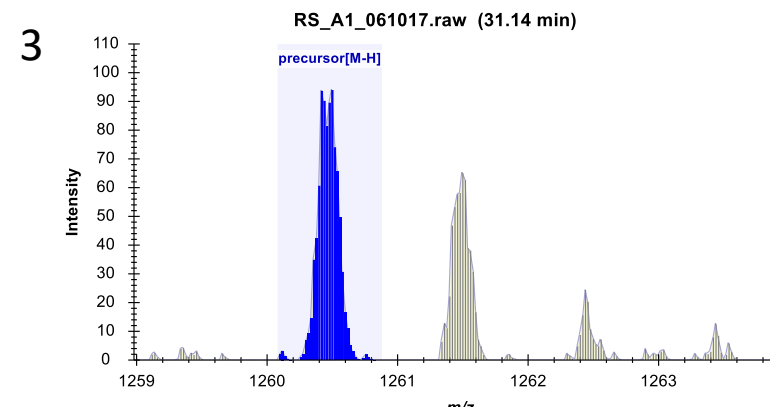
[M-H] 1260.48



16a



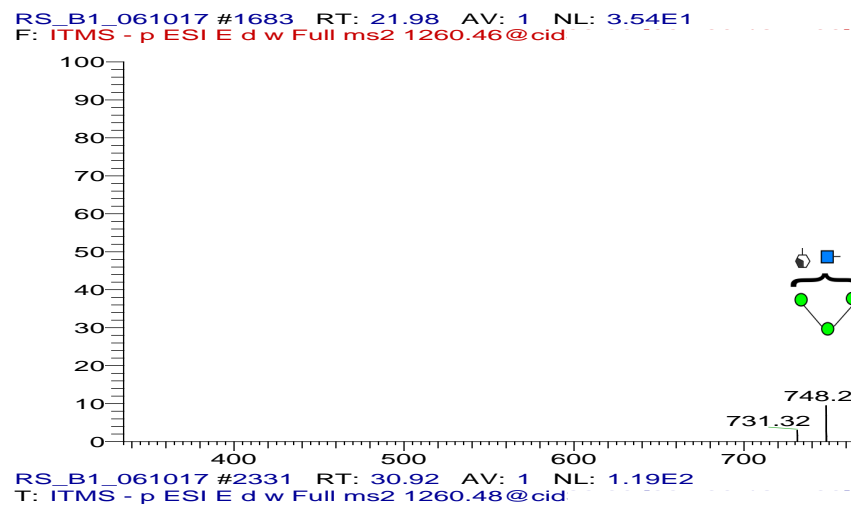
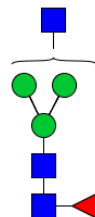
16b



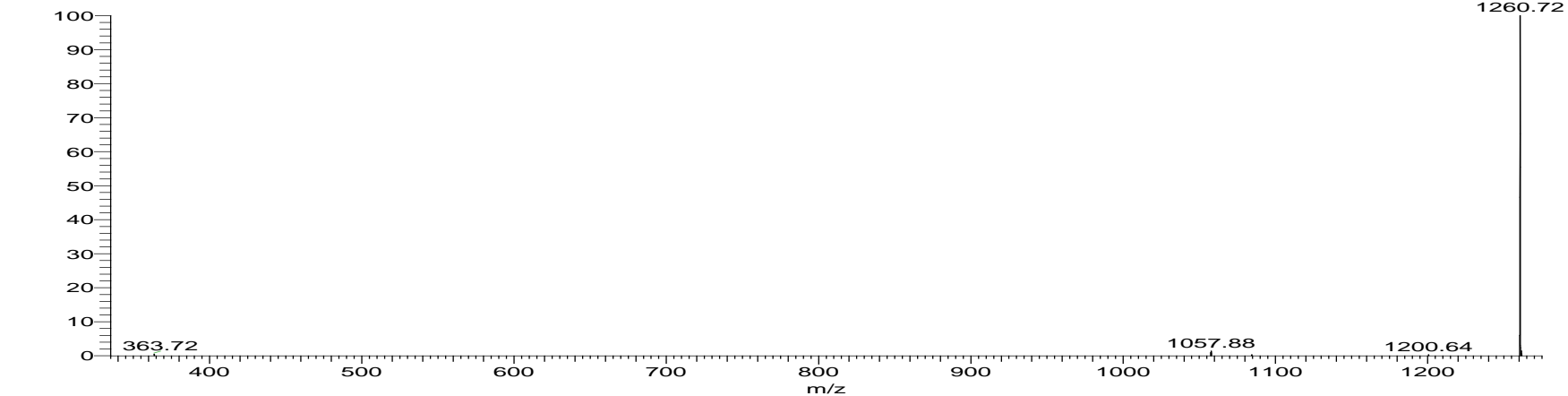
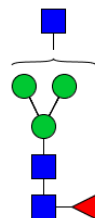
16c

CID-MS/MS  
( $m/z$  1260.46<sup>1-</sup>)

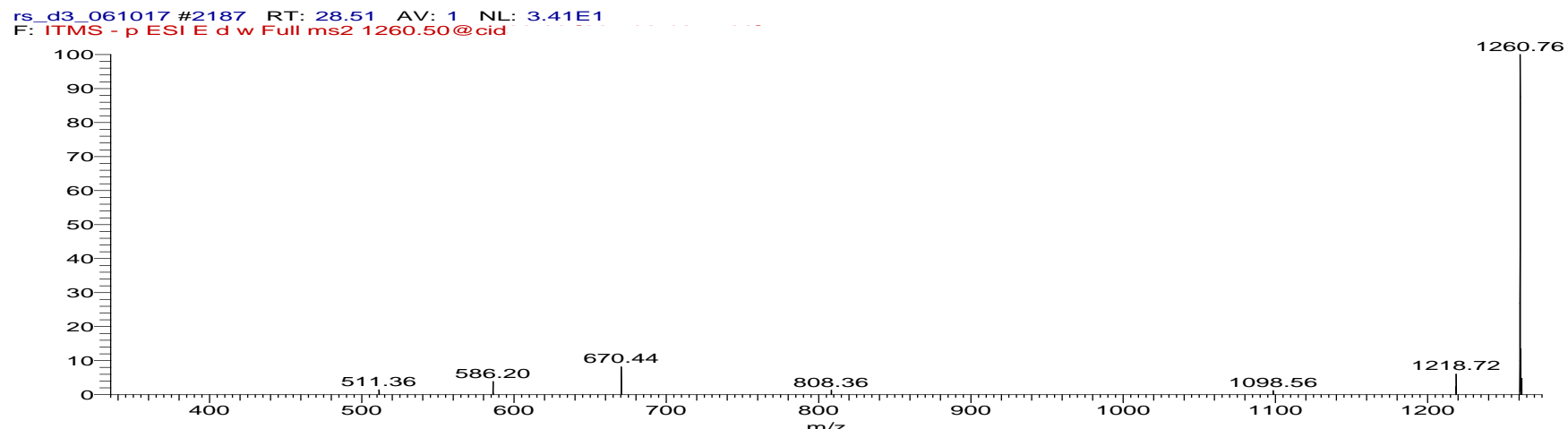
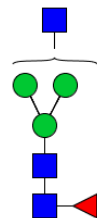
16a



16b



16c

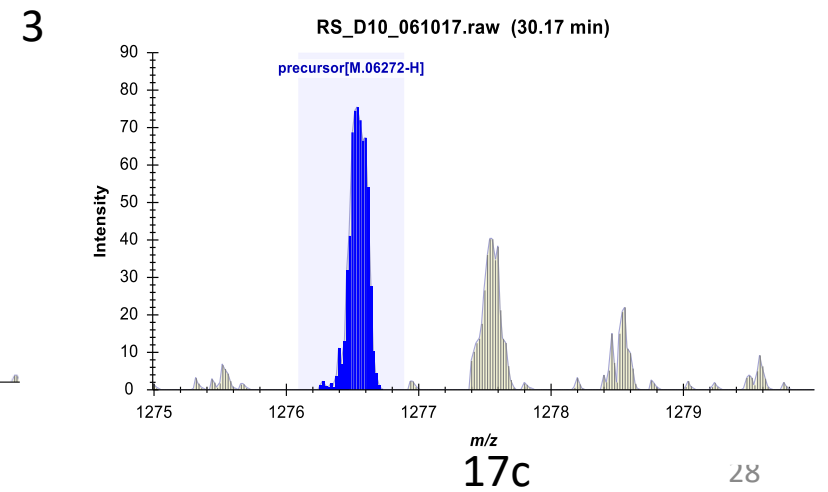
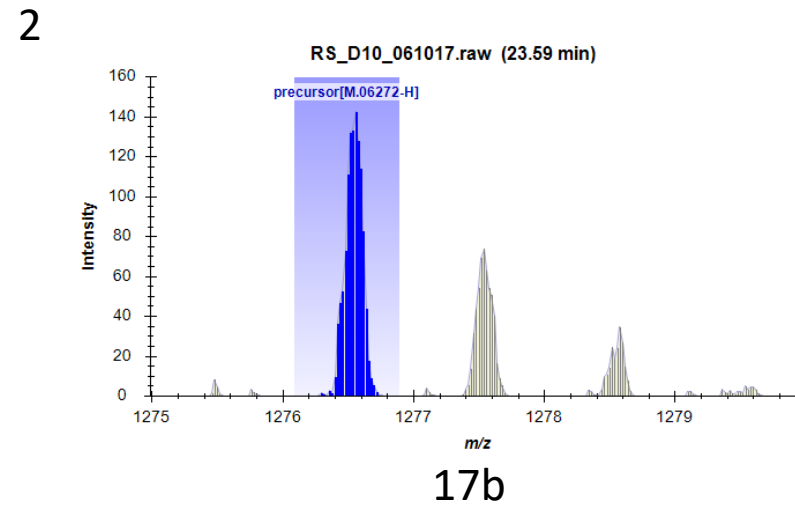
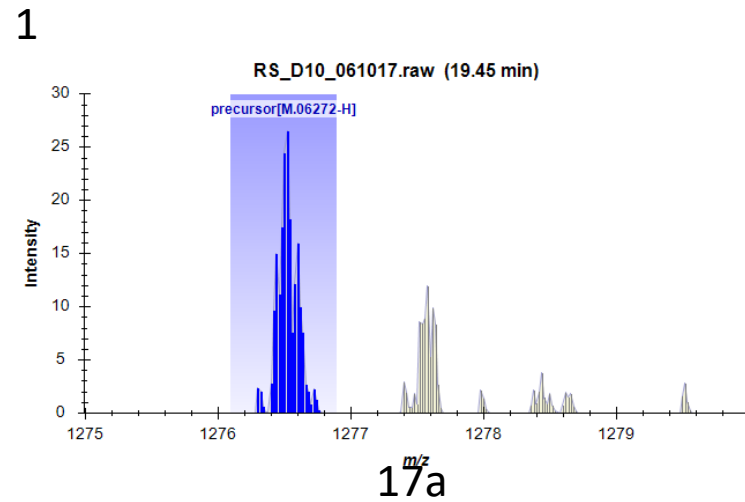
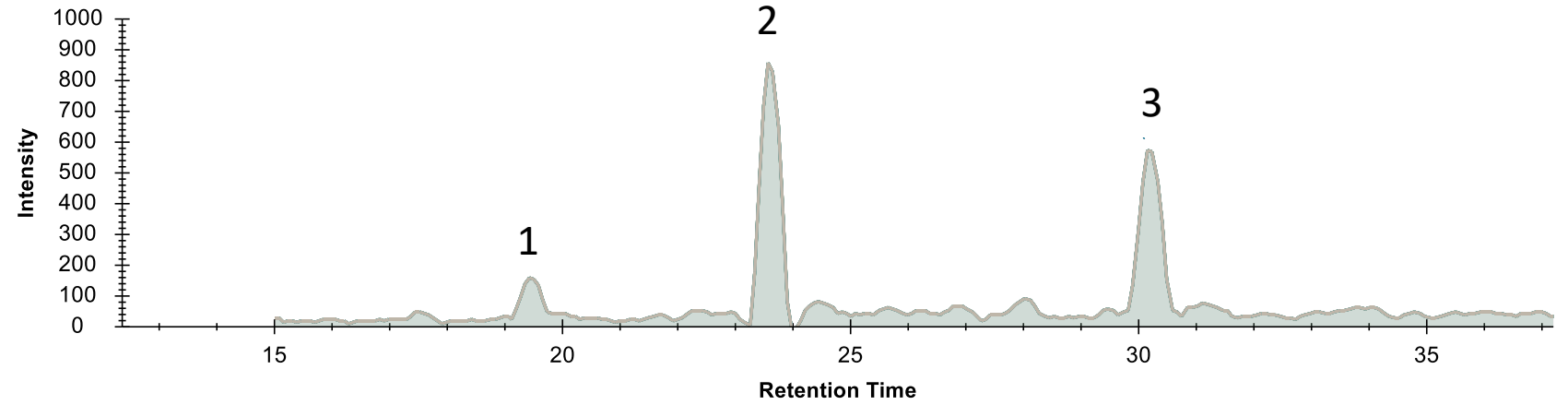


(Hex)1 (HexNAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G86309VR

[M-2H] 637.71

[M-H]1276.49

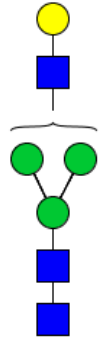




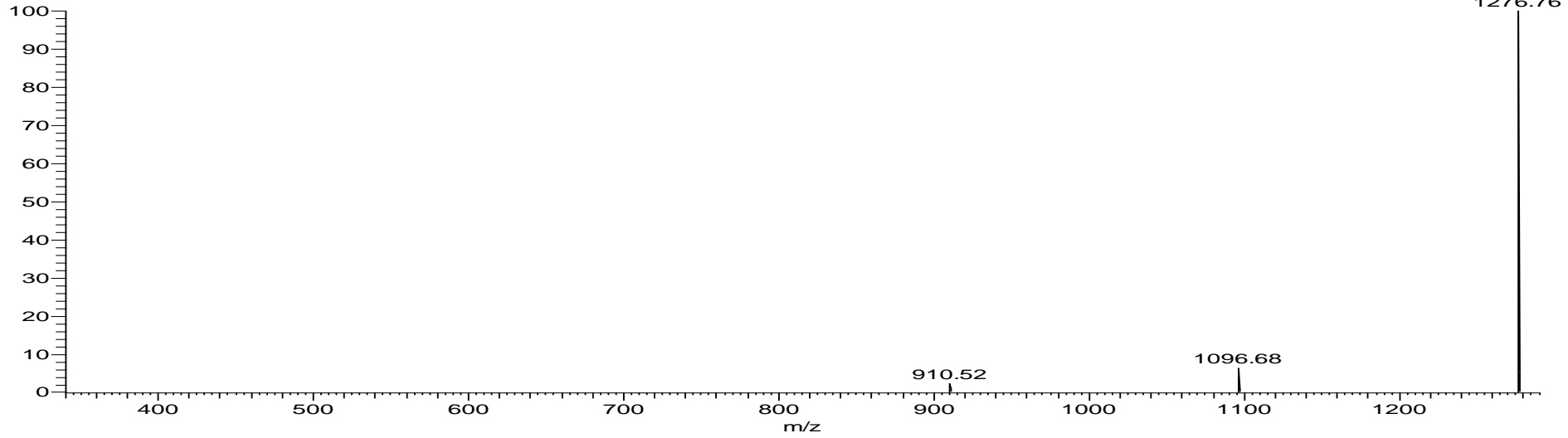
GlytouCan ID: G86309VR

CID-MS/MS  
( $m/z$  1276.49  
1-)

17b



RS\_D10\_061017 #1805 RT: 23.55 AV: 1 NL: 4.53E1  
F: ITMS - p ESIE d w Full ms2 1276.52@cid33.(

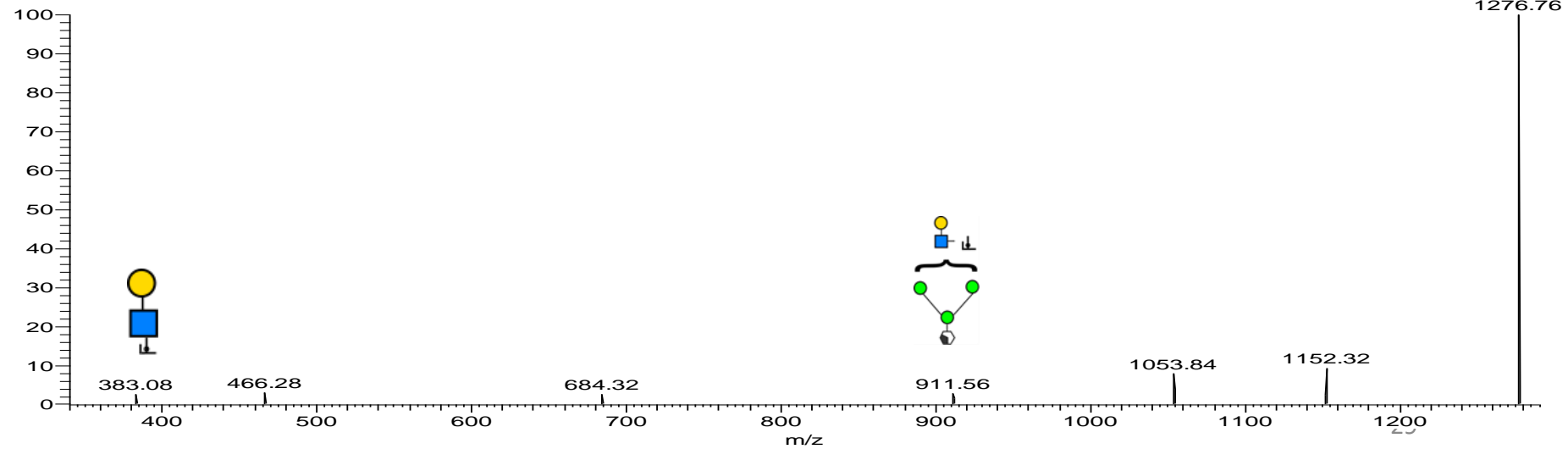


17c



3

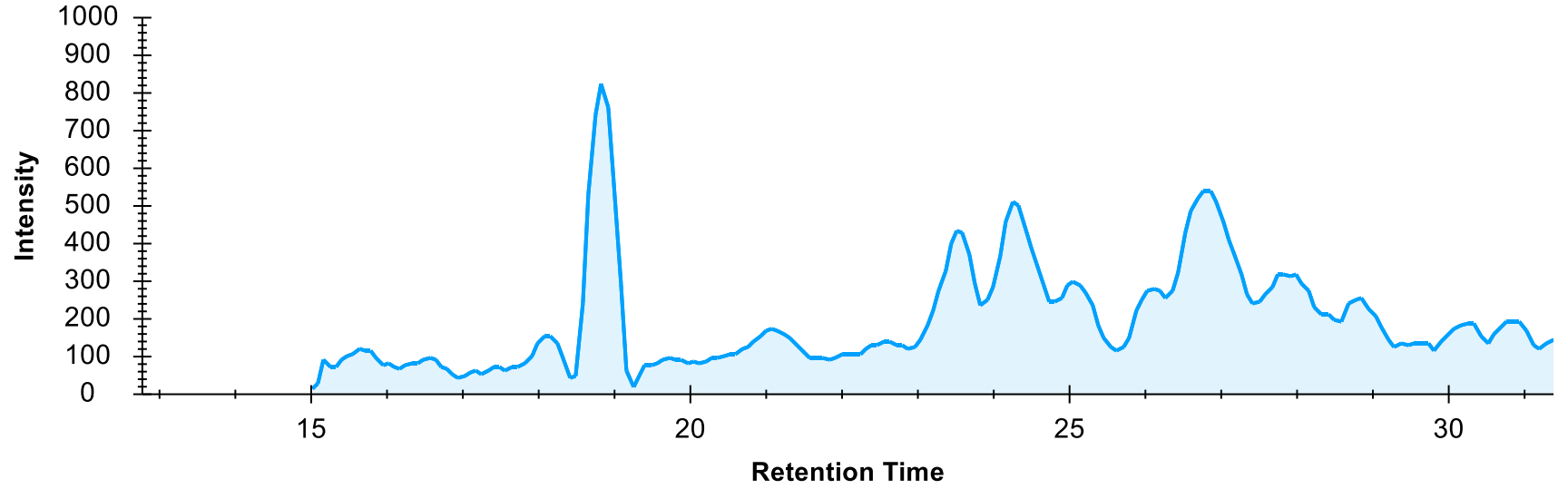
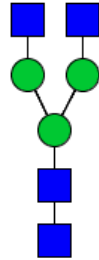
RS\_D10\_061017 #2288 RT: 30.15 AV: 1 NL: 2.21E1  
F: ITMS - p ESIE d w Full ms2 1276.52@cid33.(



(HexNAc)<sub>2</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

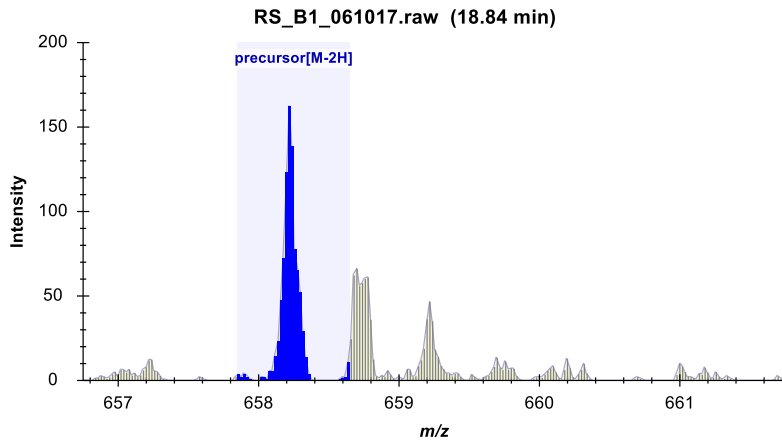
GlytouCan ID: G38426SE

[M-2H]<sup>-</sup> 658.25

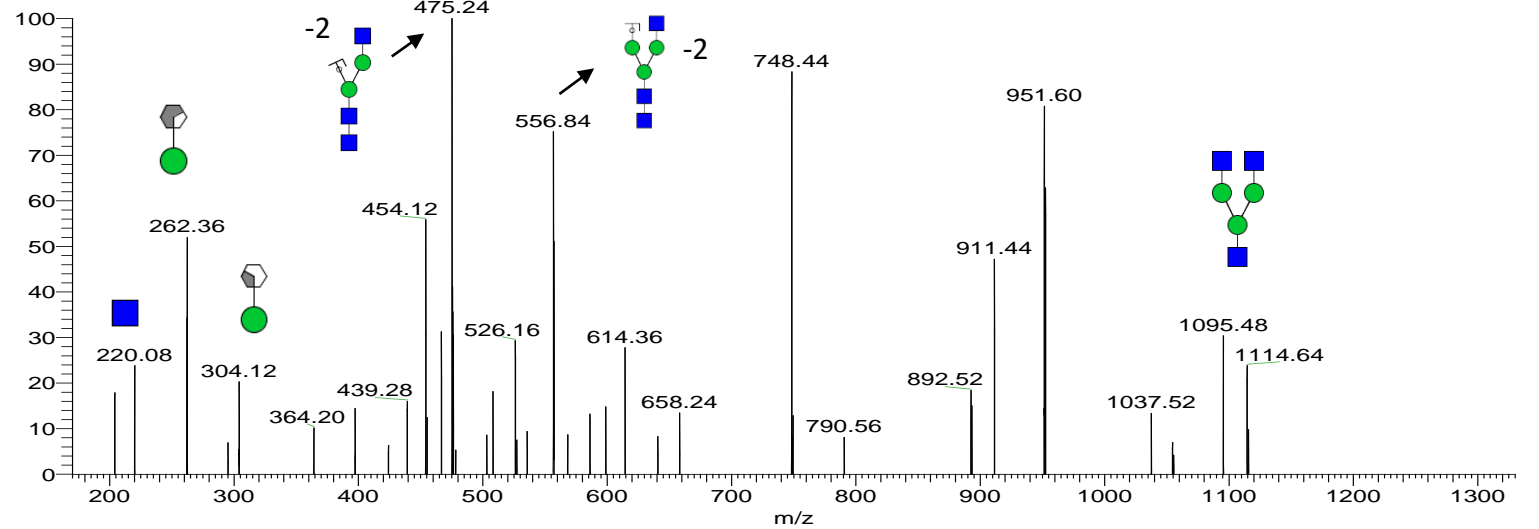


CID-MS/MS ( $m/z$  658.25<sup>2-</sup>)

RS\_H1\_061017 #1436 RT: 18.82 AV: 1 NL: 7.86  
T: ITMS - p ESI E d w Full ms2 658.22@cid3



Glycan ID: 18

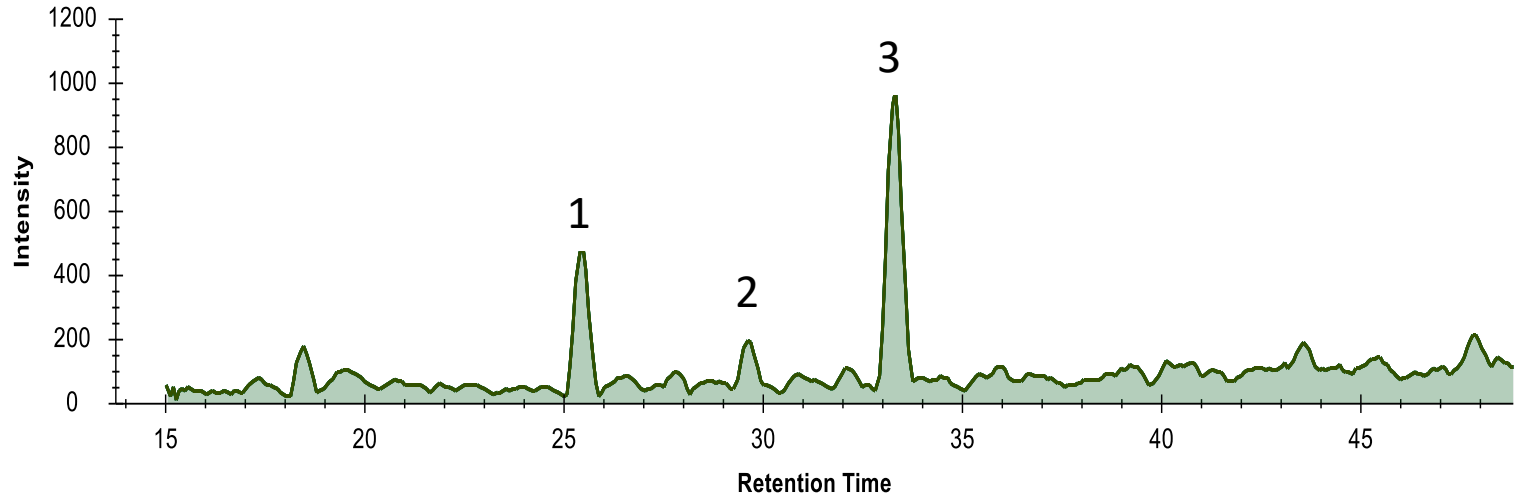
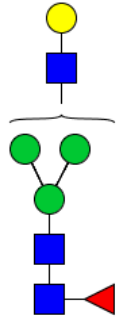


(Hex)1 (HexNAc)1 (Deoxyhexose)1 + (Man)3(GlcNAc)2\_1

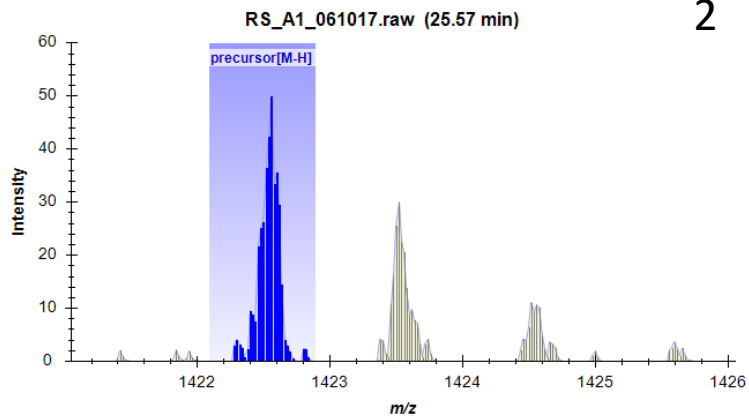
[M-2H] 710.74

[M-H] 1422.55

Glytougan ID: G17800QD

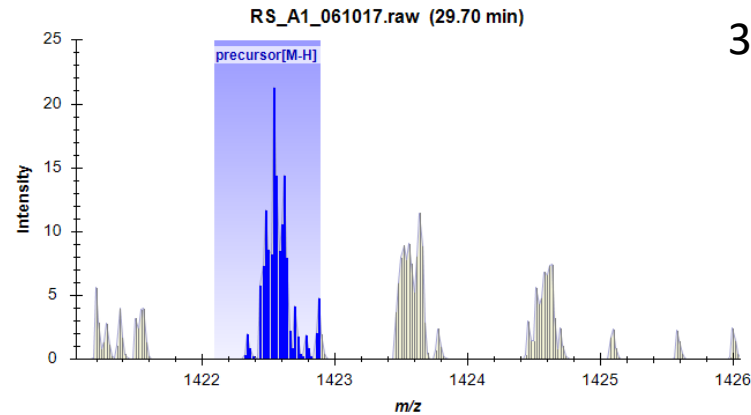


1



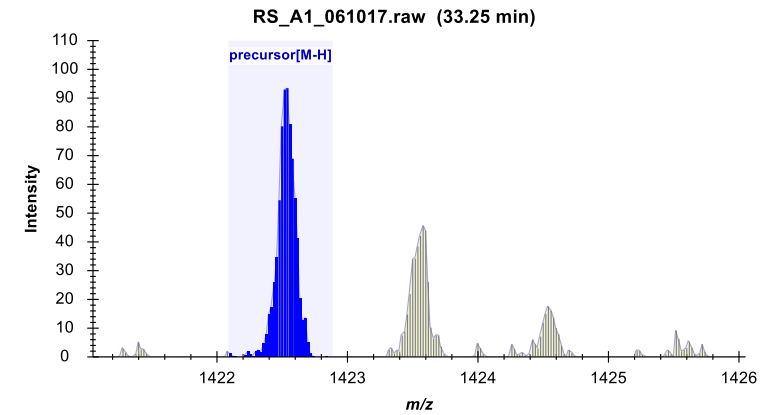
19a

2



19b

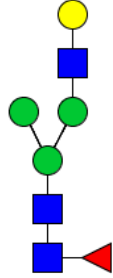
3



19c

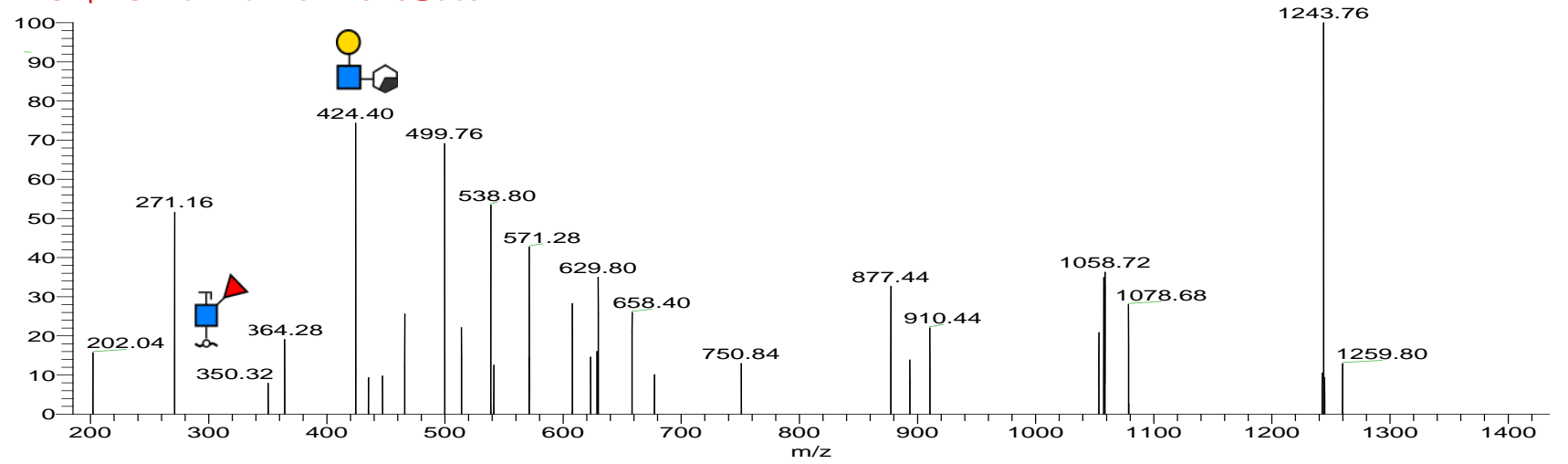
CID-MS/MS  
( $m/z$  710.74  $^{2-}$ )

19a



1

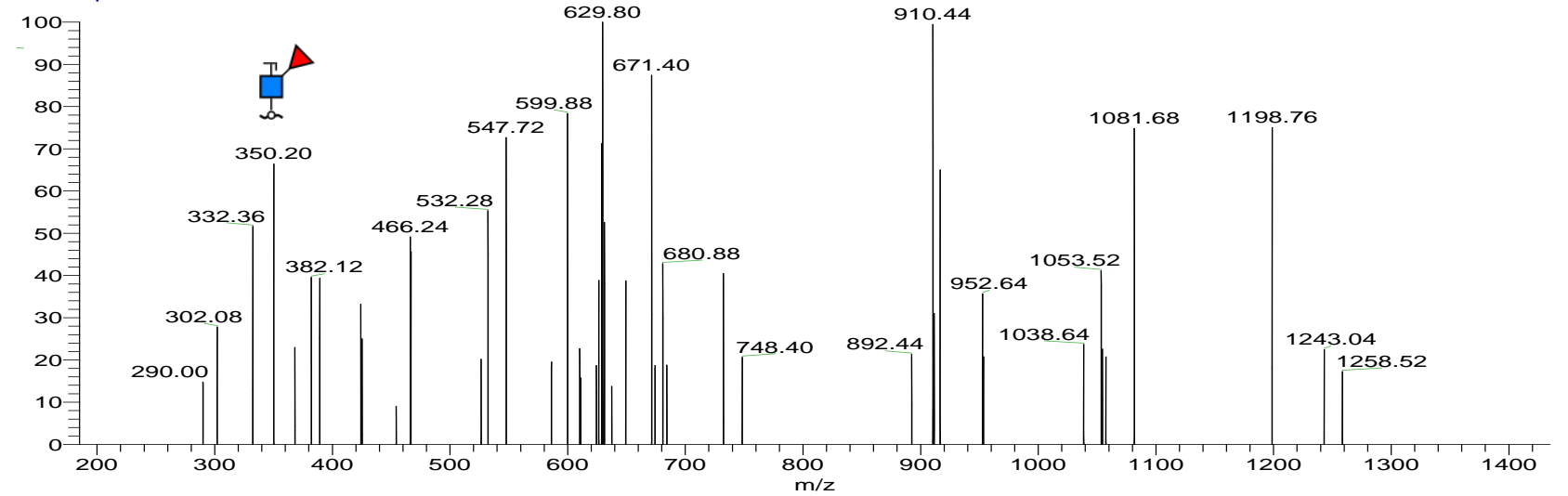
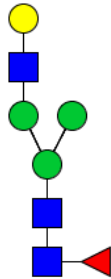
RS\_C6\_061017 #2150 RT: 28.34 AV: 1 NL: 5.76  
F: ITMS - p ESI E d w Full ms2 710.76@cid3



3

RS\_B1\_061017 #2477 RT: 33.03 AV: 1 NL: 4.04  
T: ITMS - p ESI E d w Full ms2 710.74@cid3

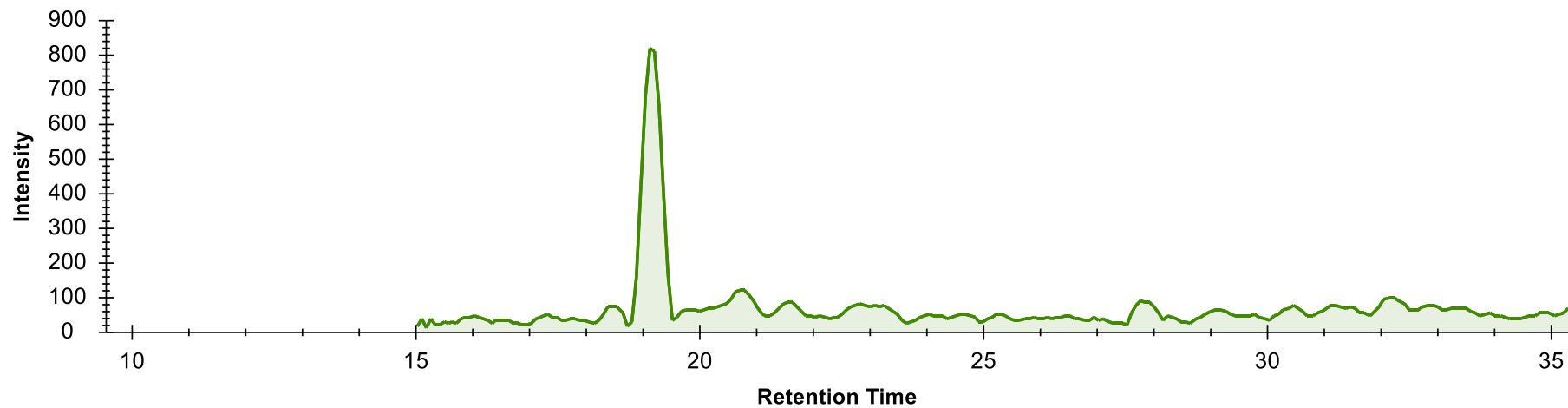
19c



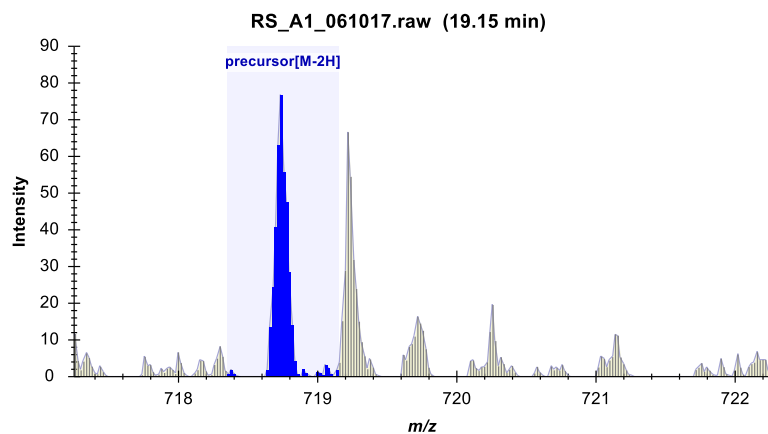
(Hex)2 (HexNAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G41072QC

[M-2H] 718.75

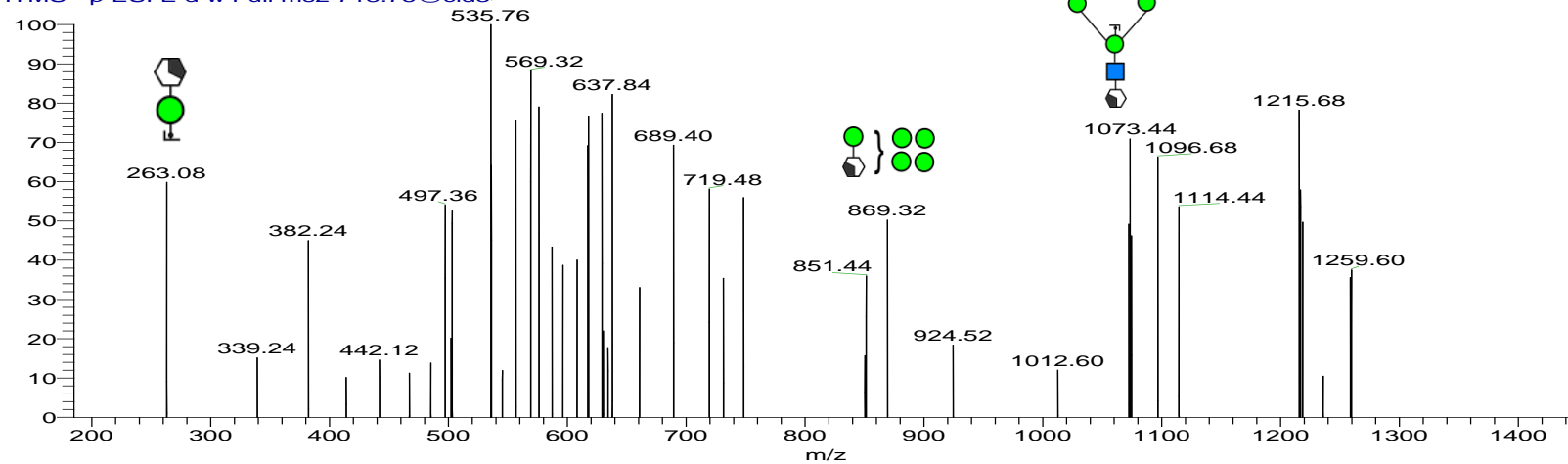


### CID-MS/MS ( $m/z$ 718.75 $^{2-}$ )



Glycan ID: 20

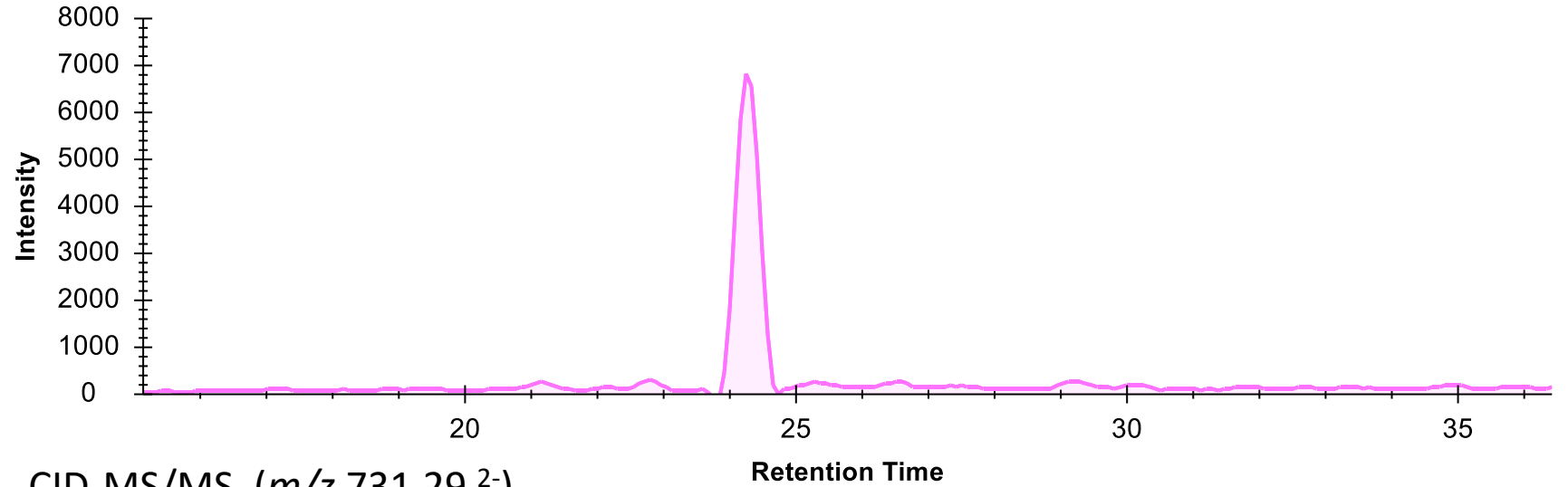
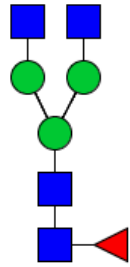
RS\_C1\_061017 #1445 RT: 18.84 AV: 1 NL: 4.30  
T: ITMS - p ESI E d w Full ms2 718.75@cid3



(HexNAc)<sub>2</sub> (Deoxyhexose)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

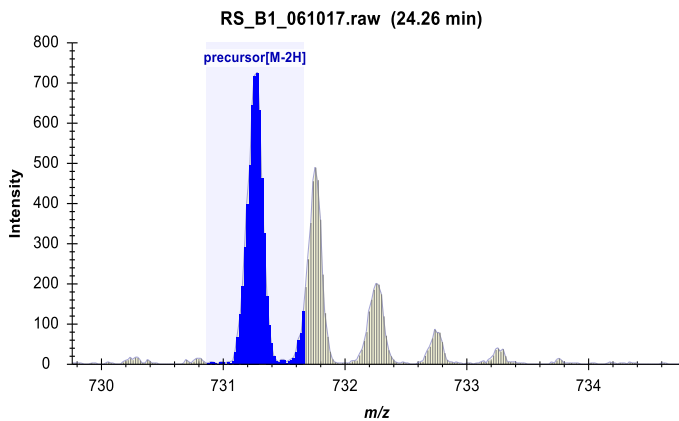
GlytouCan ID: G84053BQ

[M-2H]<sup>-</sup> 731.26

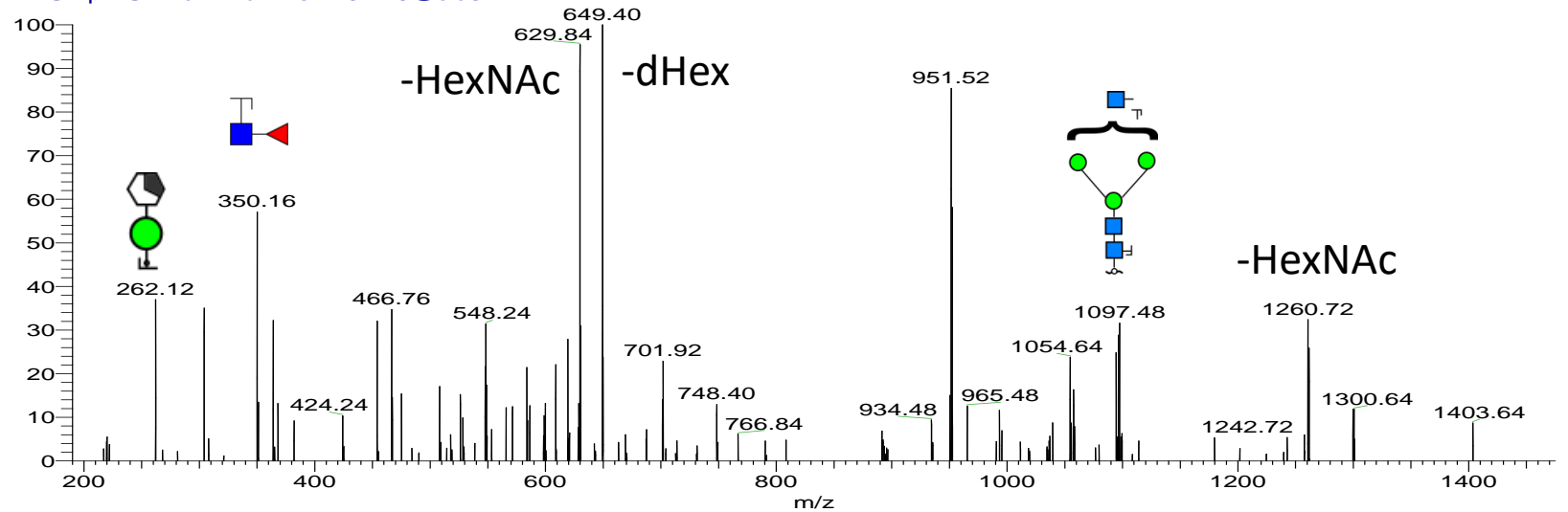


CID-MS/MS ( $m/z$  731.29<sup>2-</sup>)

RS\_B1\_061017 #1851 RT: 24.23 AV: 1 NL: 2.71E1  
T: ITMS - p ESI E d w Full ms2 731.29@cid3



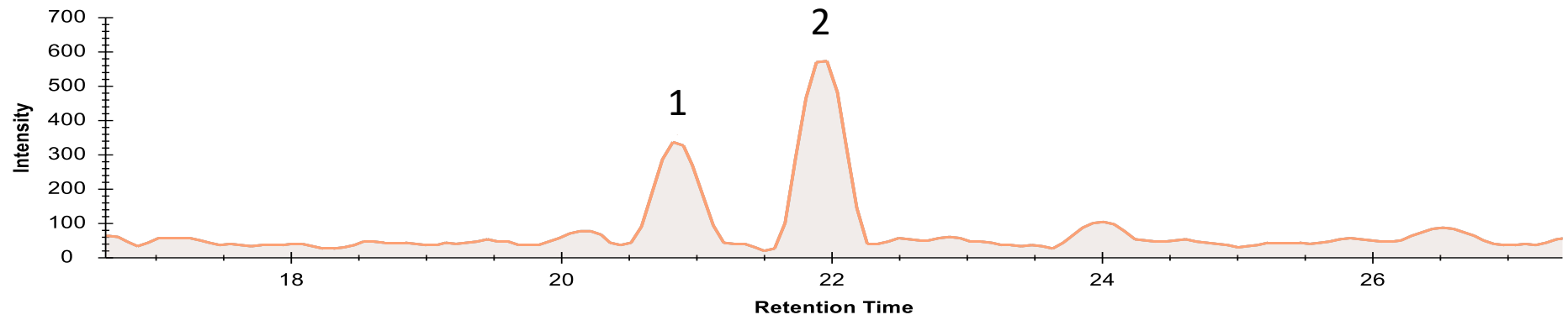
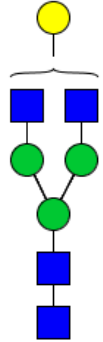
Glycan ID: 21



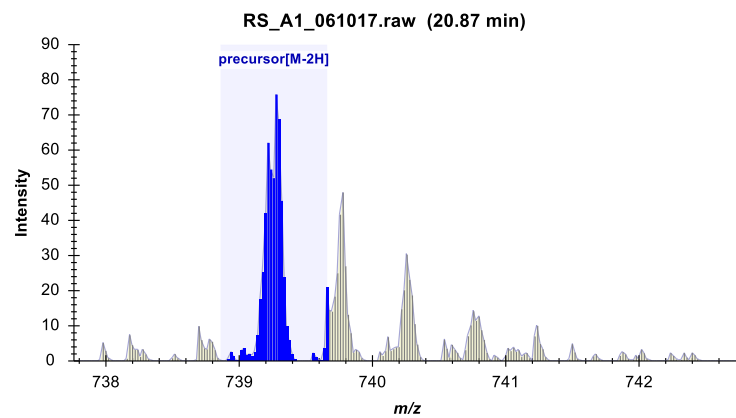
(Hex)1 (HexNAc)2 + (Man)3(GlcNAc)2

GlytouCan ID: G06550JR

[M-2H]<sup>-</sup> 739.26

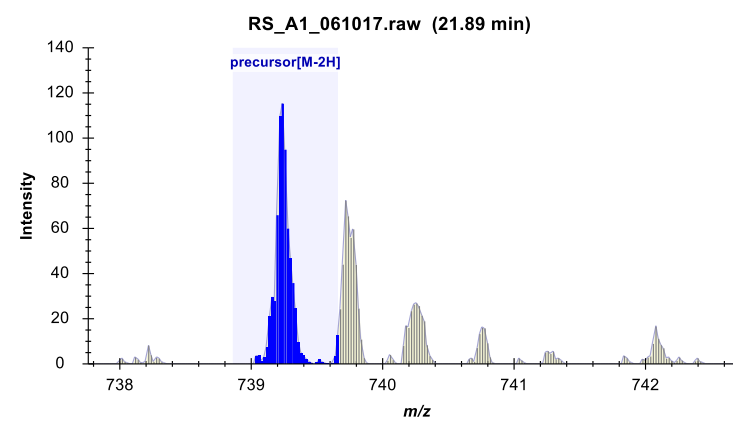


1



22a

2



22b

CID-MS/MS

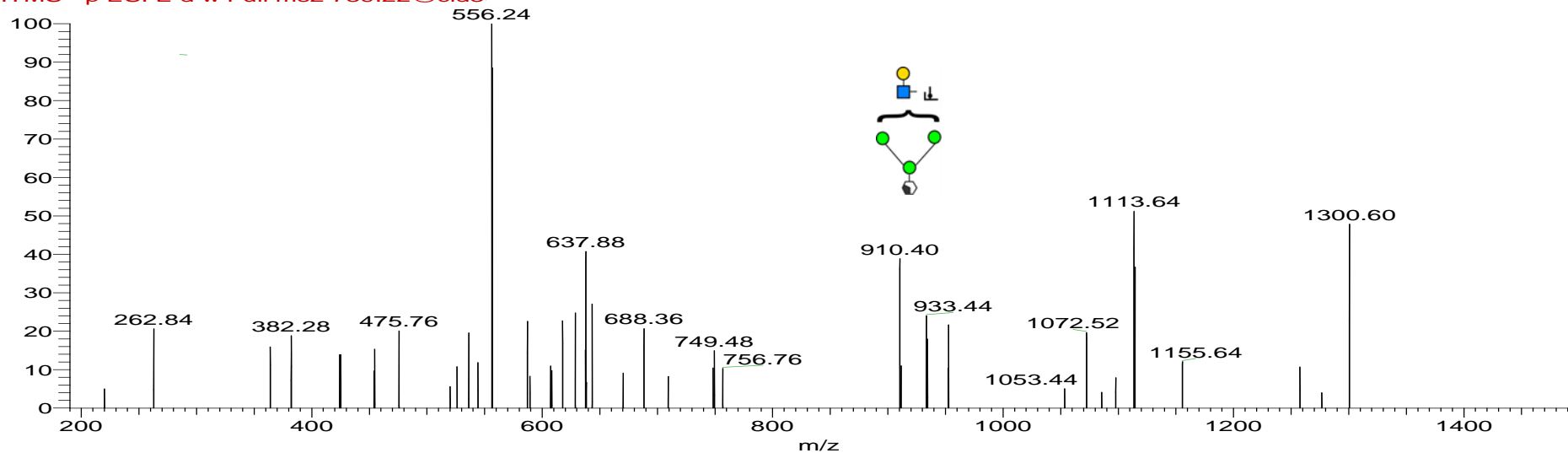
( $m/z$  739.22<sup>2-</sup>)

22a

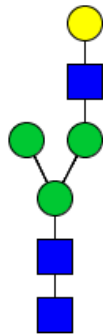


rs\_h1\_061017 #1572 RT: 20.65 AV: 1 NL: 9.64

F: ITMS - p ESI E d w Full ms2 739.22@cid3

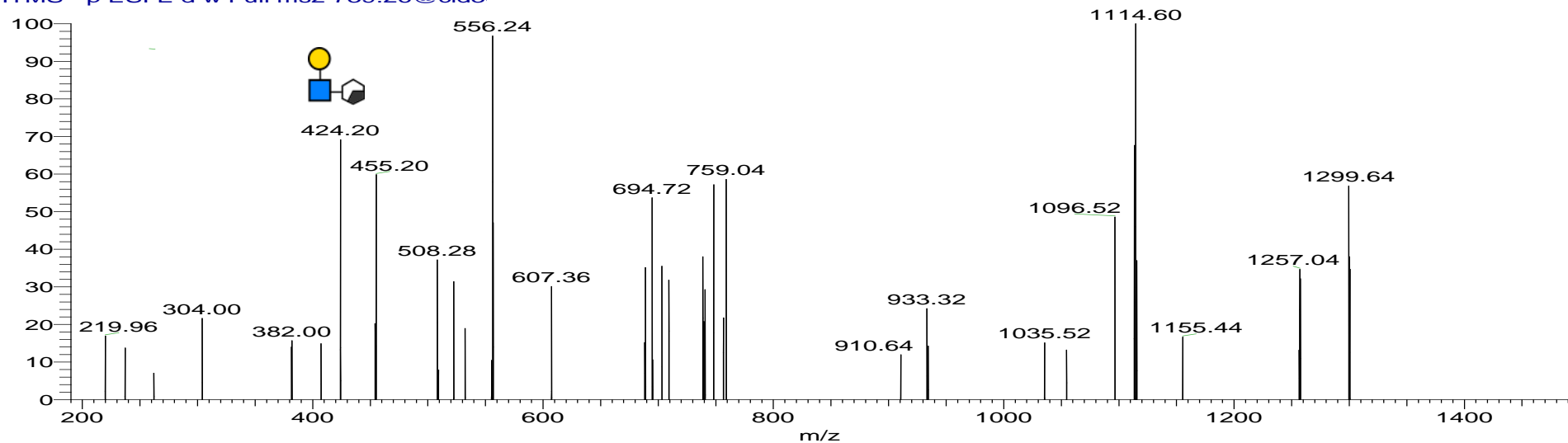


22b



RS\_H1\_061017 #1652 RT: 21.77 AV: 1 NL: 6.22

T: ITMS - p ESI E d w Full ms2 739.26@cid3

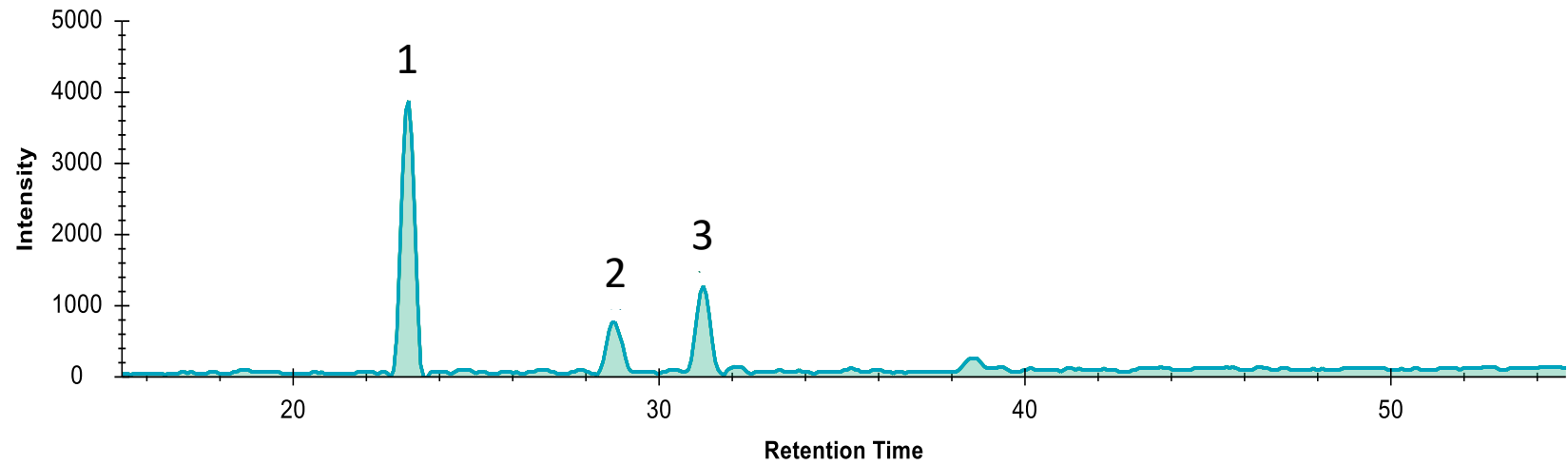




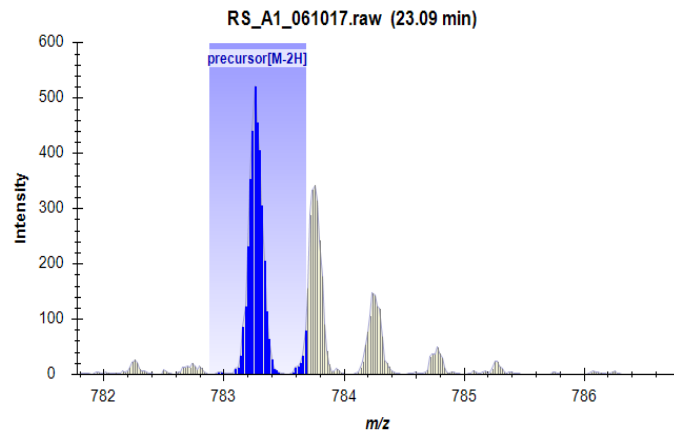
(Hex)1 (HexNAc)1 (NeuAc)1 + (Man)3(GlcNAc)2

[M-2H] 783.28

Glytough ID: G75448JJ

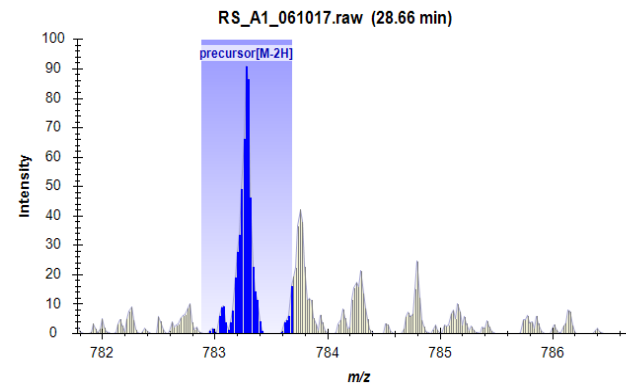


1



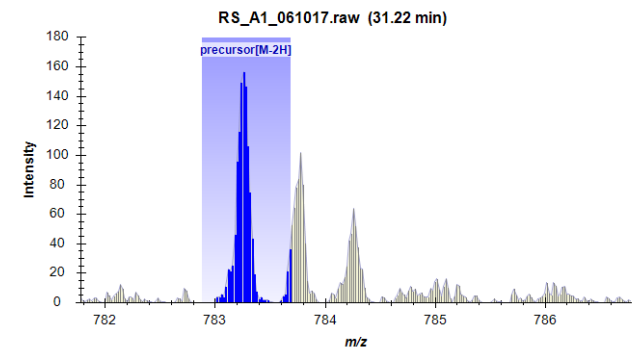
23a

2



23b

3

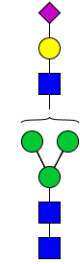


23c

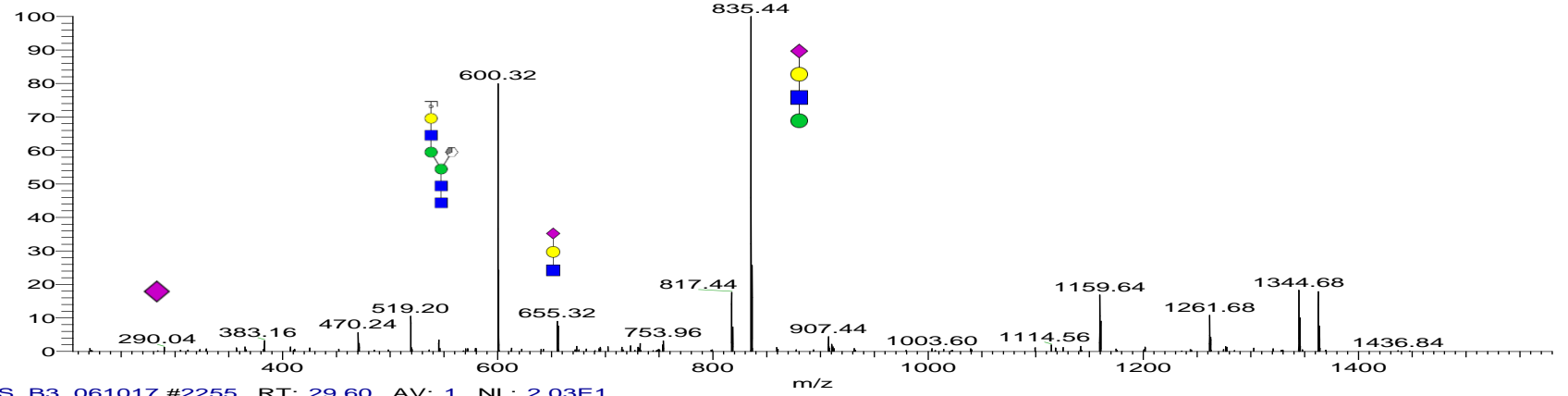
GlytouCan ID: G75448JJ

CID-MS/MS  
( $m/z$  783.28<sup>2-</sup>)

23a



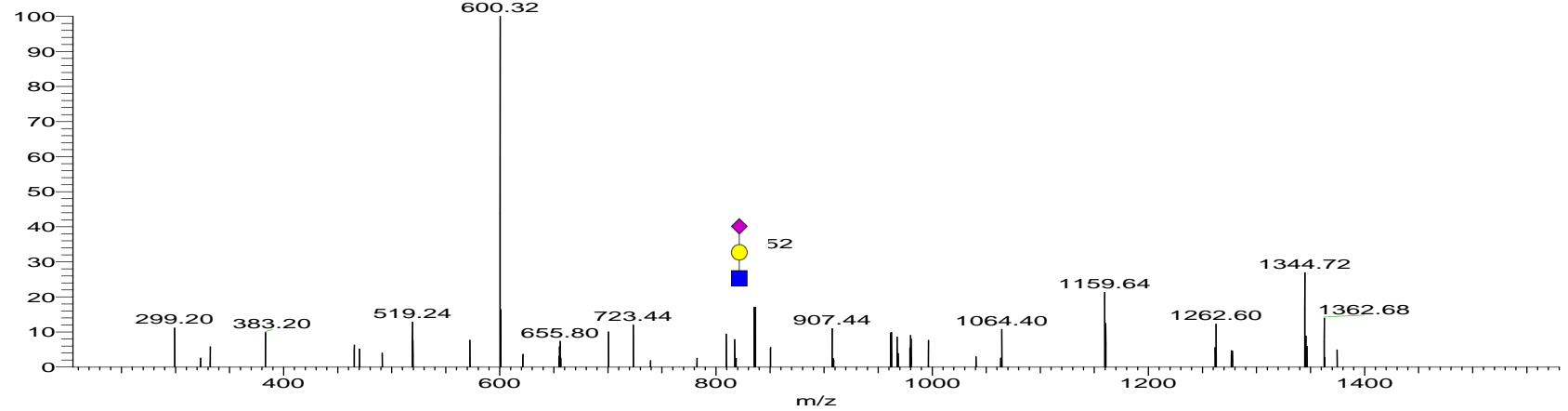
RS\_B3\_061017 #1851 RT: 24.03 AV: 1 NL: 2.27E2  
F: ITMS - p ESI E d w Full ms2 783.25@cid3



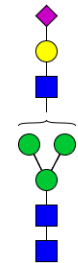
23b



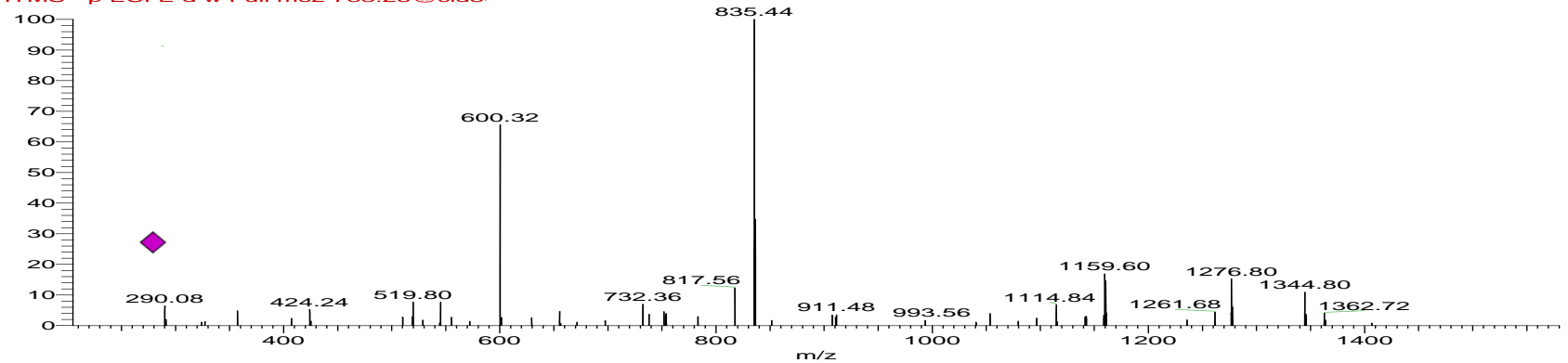
RS\_B3\_061017 #2255 RT: 29.60 AV: 1 NL: 2.03E1  
F: ITMS - p ESI E d w Full ms2 783.25@cid3



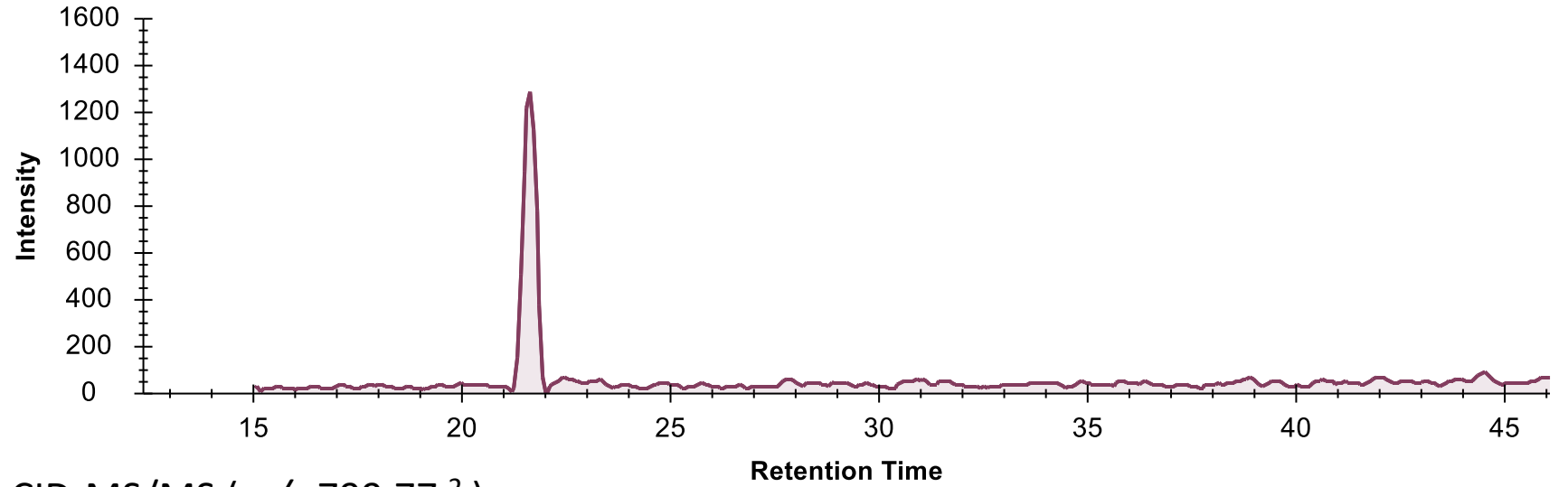
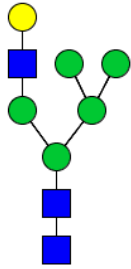
23c



RS\_B3\_061017 #2432 RT: 32.21 AV: 1 NL: 4.78E1  
F: ITMS - p ESI E d w Full ms2 783.25@cid3

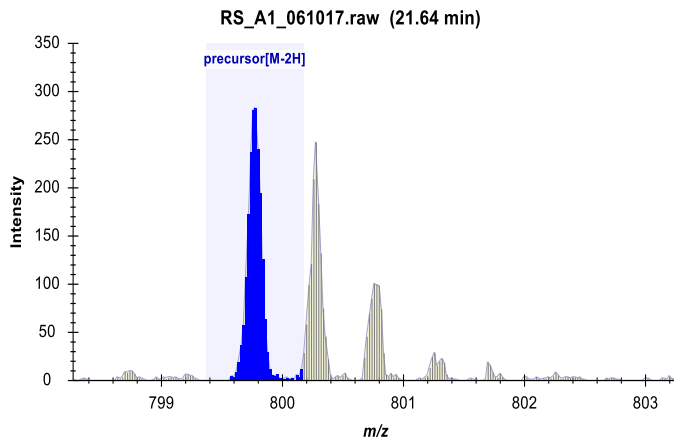


(Hex)<sub>3</sub> (HexNAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>  
 GlytouCan ID: G97385ZA

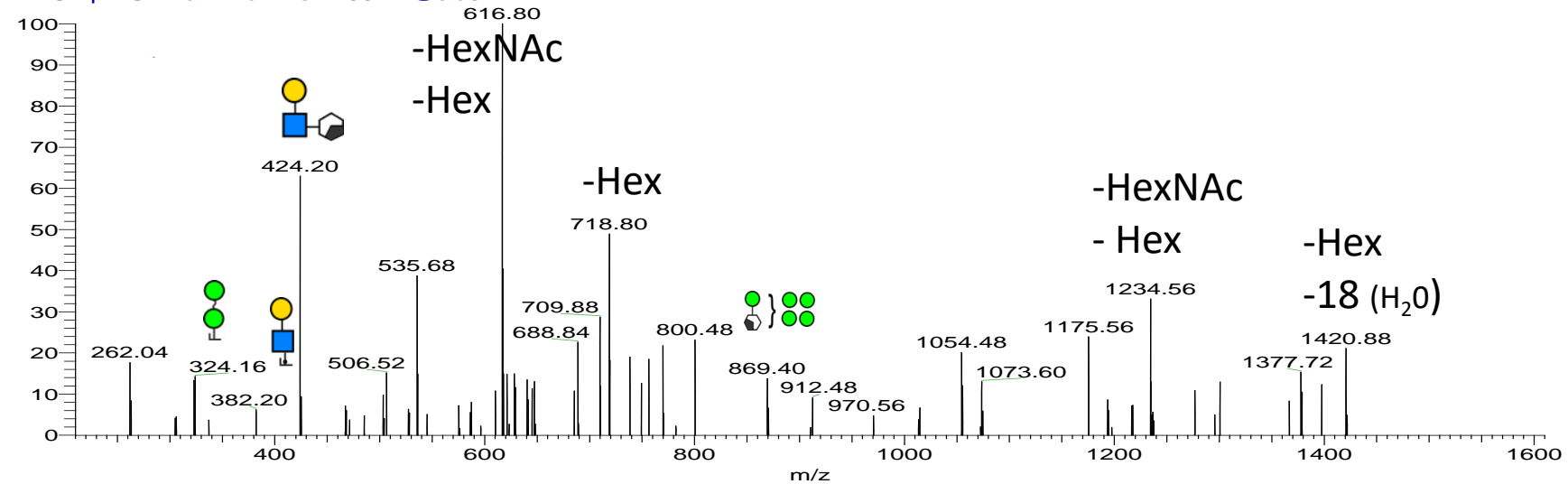


CID-MS/MS ( $m/z$  799.77<sup>2-</sup>)

RS\_B1\_061017 #1640 RT: 21.37 AV: 1 NL: 2.22E1  
 T: ITMS - p ESI E d w Full ms2 799.77@cid3



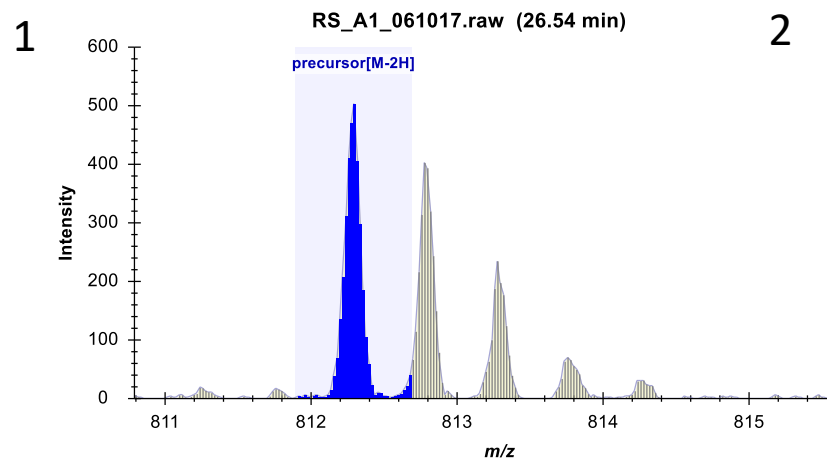
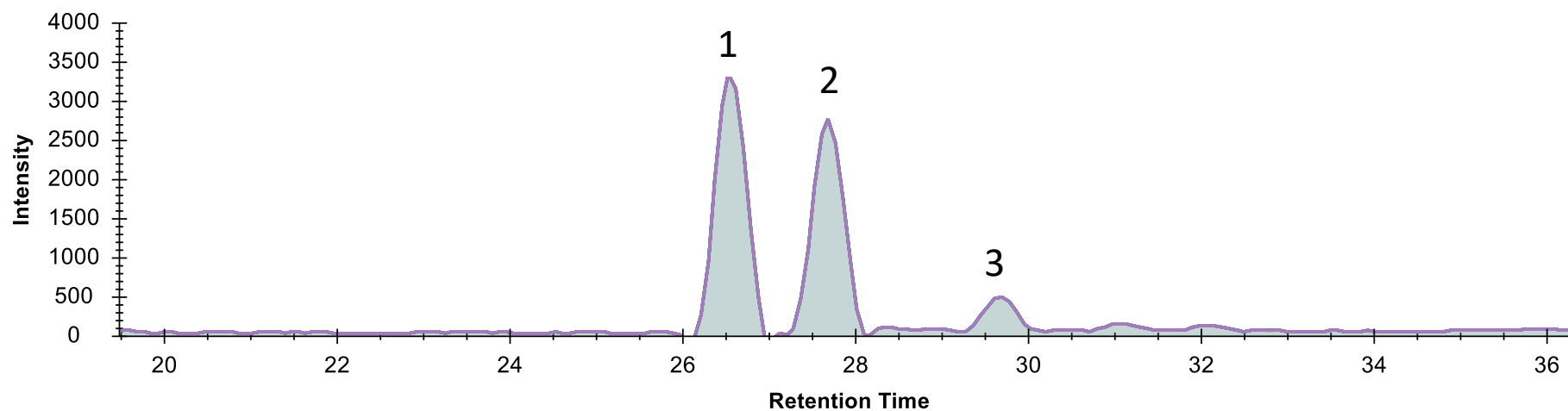
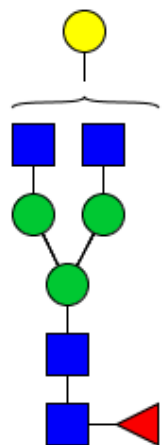
Glycan ID: 24



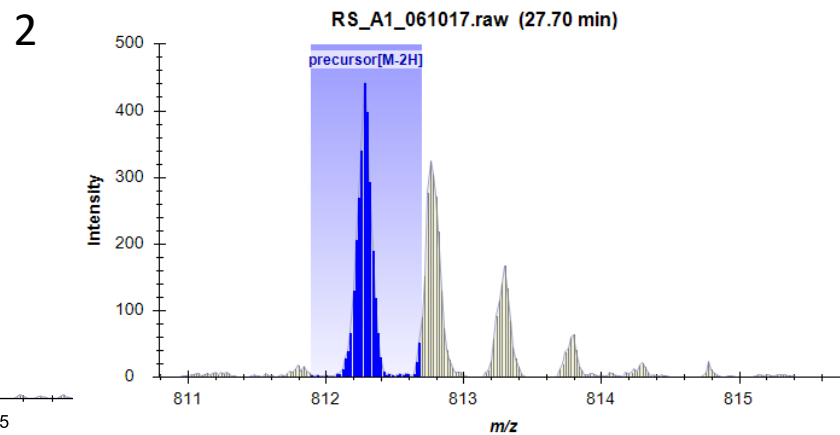
(Hex)1 (HexNAc)2 (Deoxyhexose)1 + (Man)3(GlcNAc)2

GlytouCan ID: G32915BP

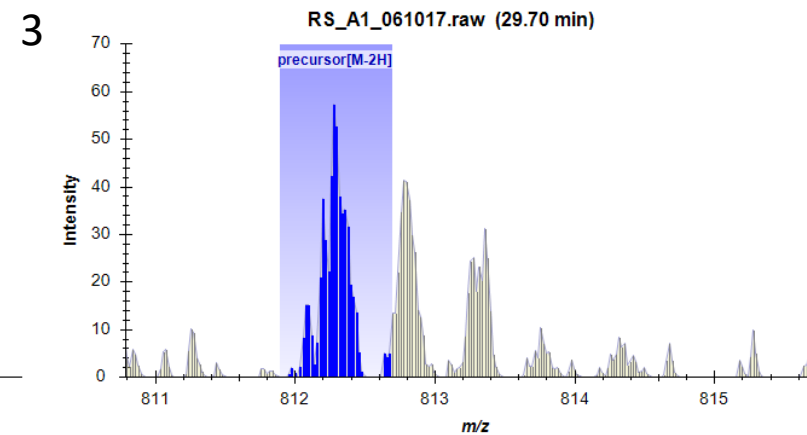
[M-2H] 812.29



25a



25b

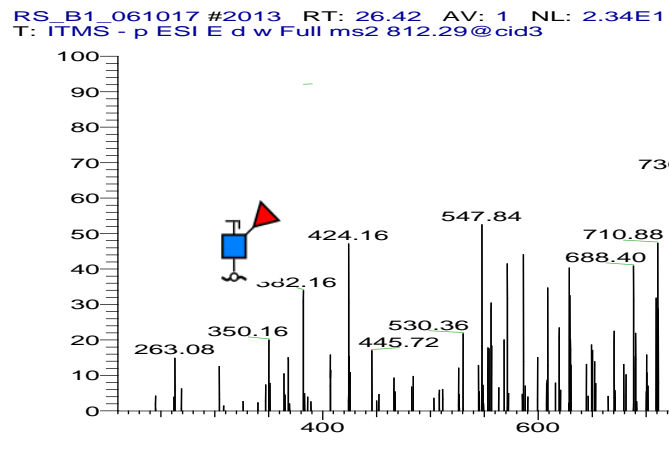


25c

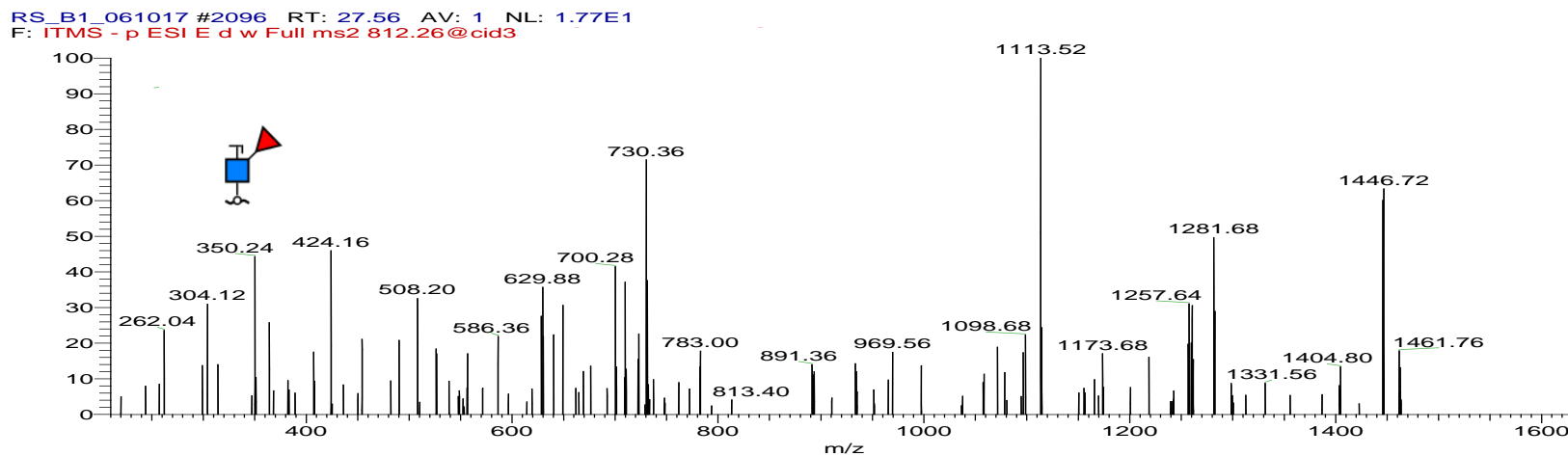
GlytouCan ID: G32915BP

CID-MS/MS  
( $m/z$  812.29<sup>2-</sup>)

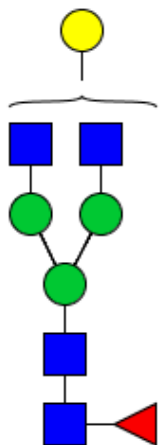
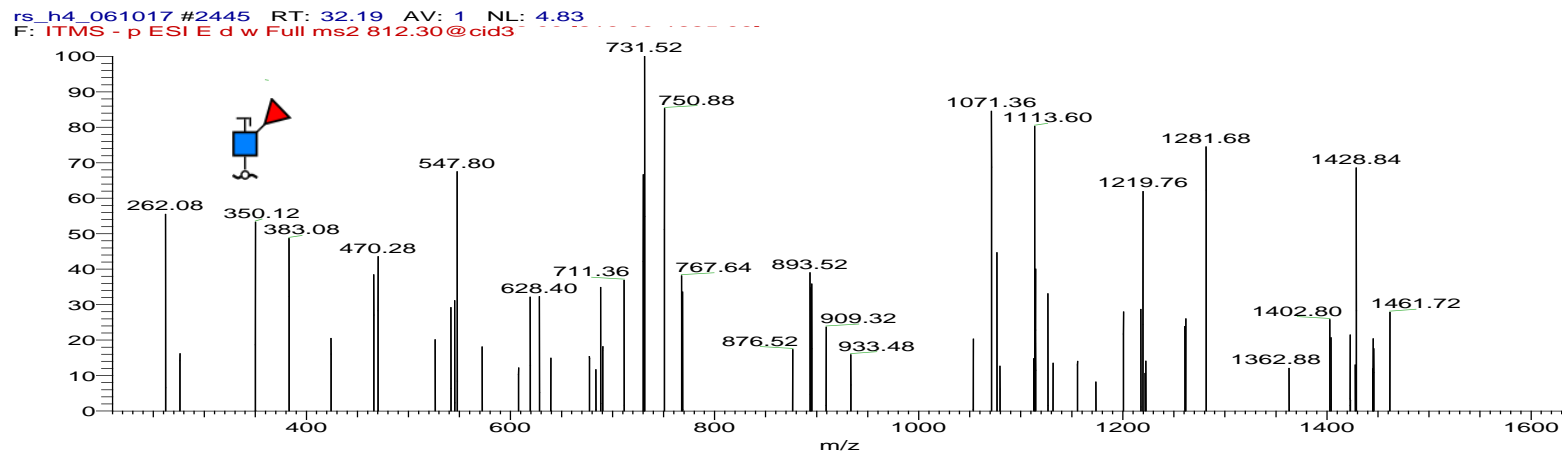
25a



25b



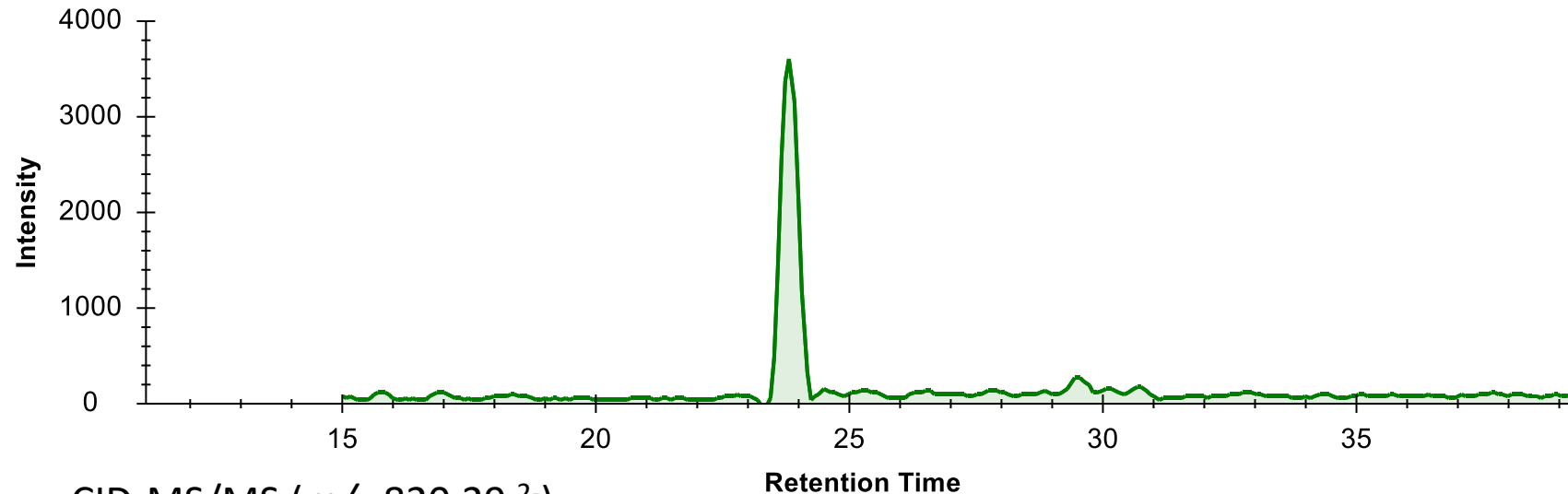
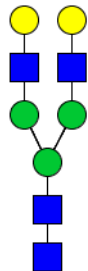
25c



(Hex)2 (HexNAc)2 + (Man)3(GlcNAc)2

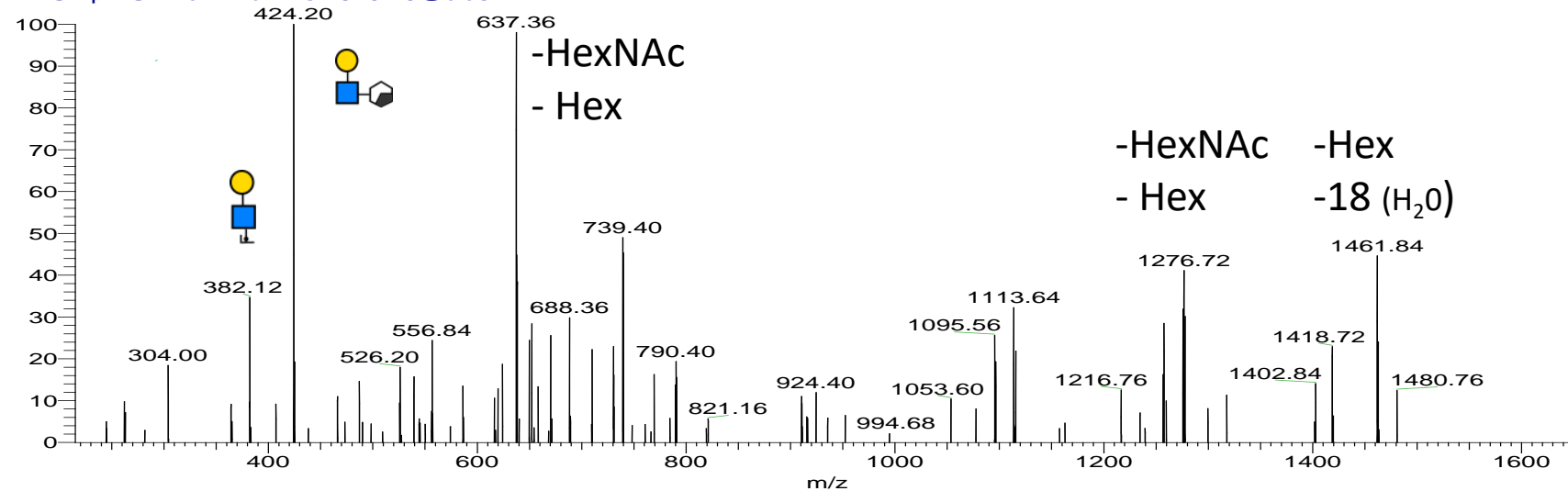
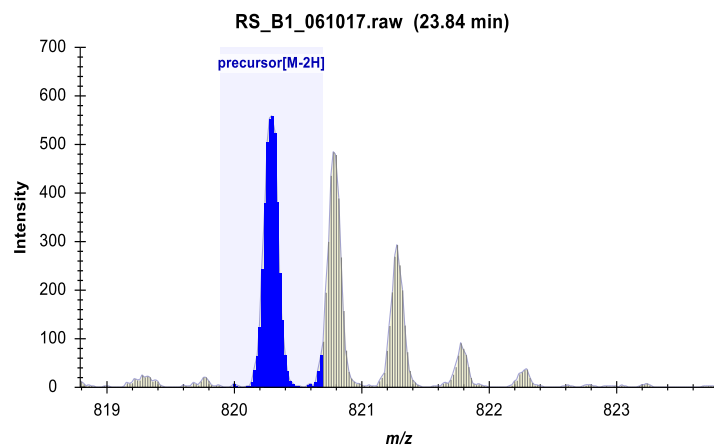
GlytouCan ID: G10179FS

[M-2H] 820.29



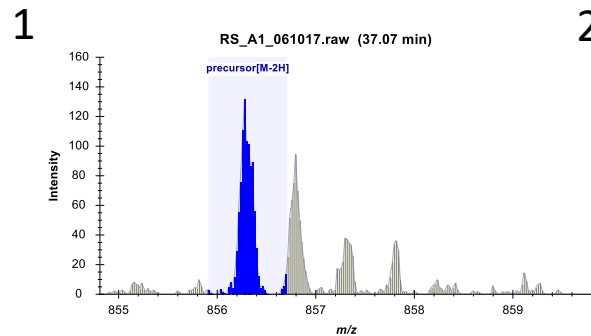
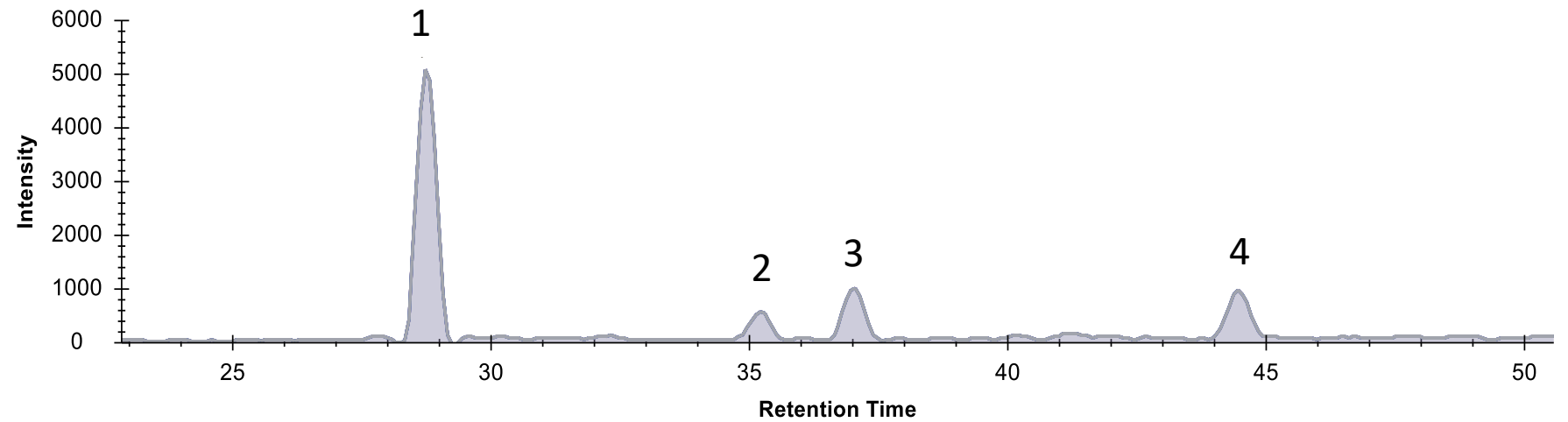
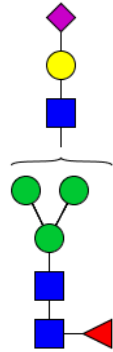
CID-MS/MS ( $m/z$  820.29  $^{2-}$ )

RS\_B1\_061017 #1821 RT: 23.81 AV: 1 NL: 1.94E1  
T: ITMS - p ESI E d w Full ms2 820.29@cid3

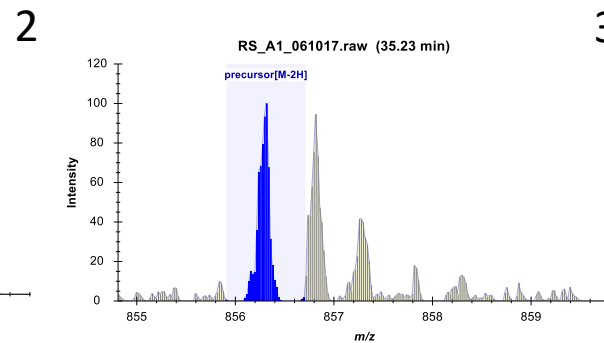


Glycan ID: 26

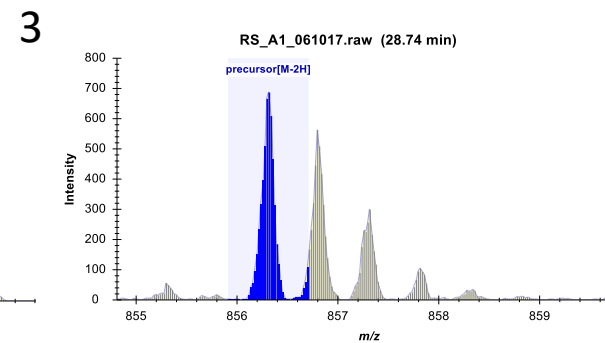
(Hex)1 (HexNAc)1 (Deoxyhexose)1 (NeuAc)1 +  
(Man)3(GlcNAc)2  
[M-2H]<sup>-</sup> 856.31  
GlytouCan ID: G58809AD



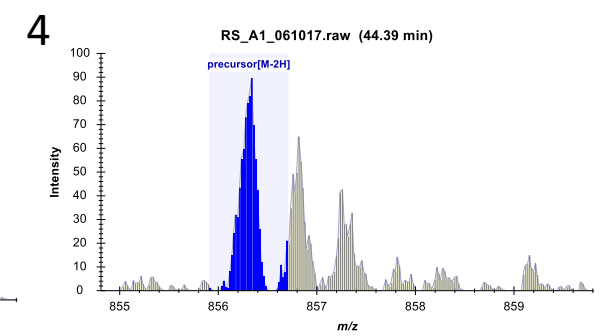
27a



27b



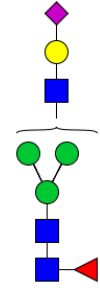
27c



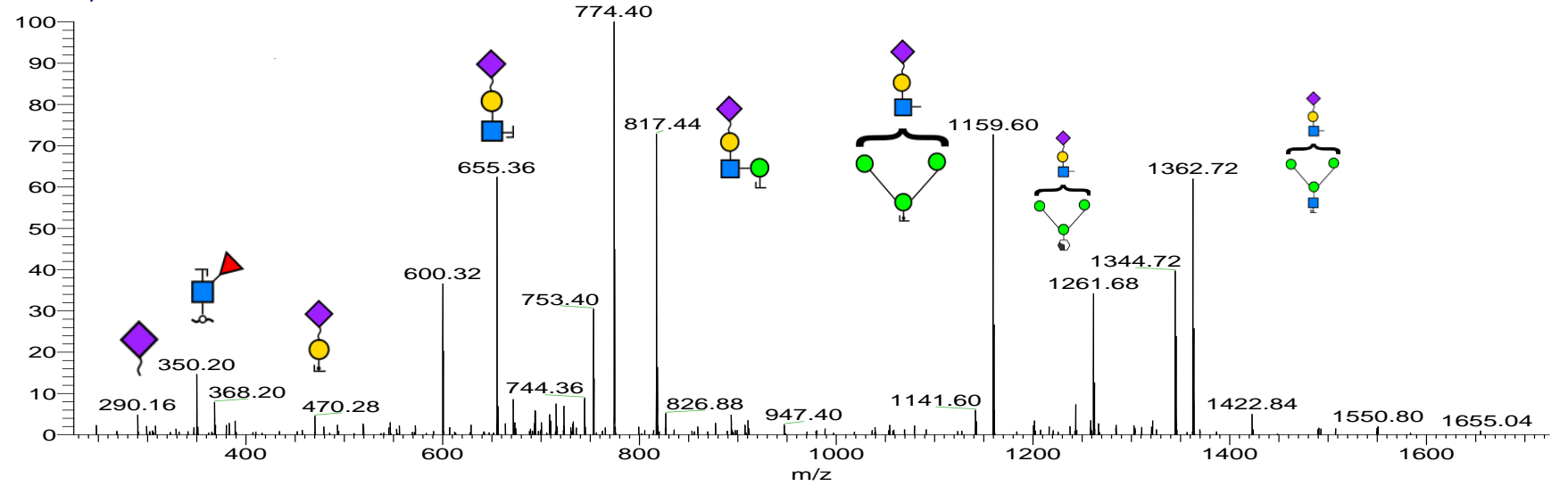
27d

CID-MS/MS  
( $m/z$  856.31<sup>2-</sup>)

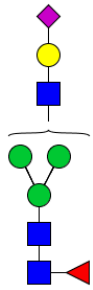
27a



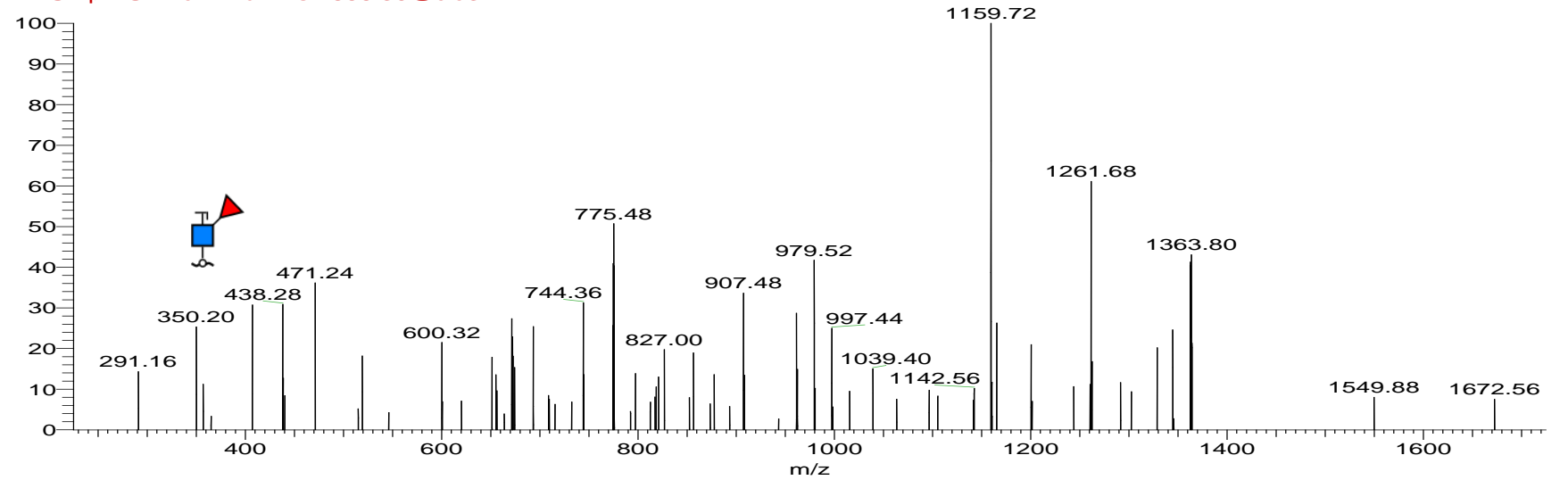
RS\_D1\_061017 #2181 RT: 28.47 AV: 1 NL: 1.46E2  
T: ITMS - p ESI E d w Full ms2 856.31@cid3



27b



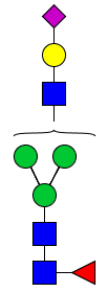
RS\_B3\_061017 #2708 RT: 36.23 AV: 1 NL: 1.25E1  
F: ITMS - p ESI E d w Full ms2 856.30@cid3



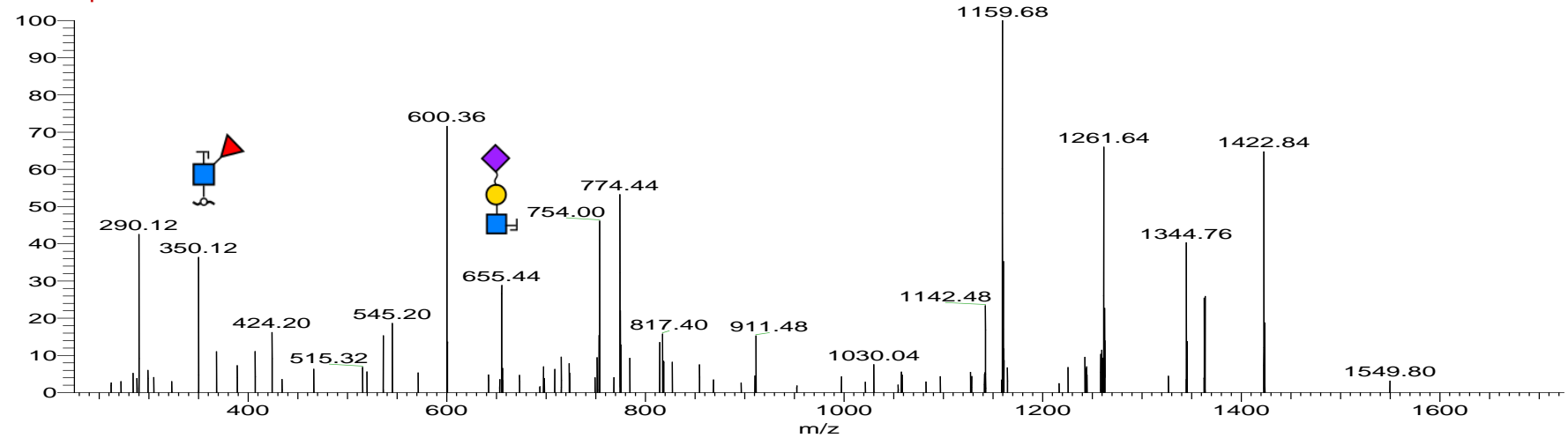


CID-MS/MS  
( $m/z$  856.31<sup>2-</sup>)

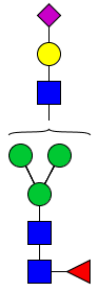
27c



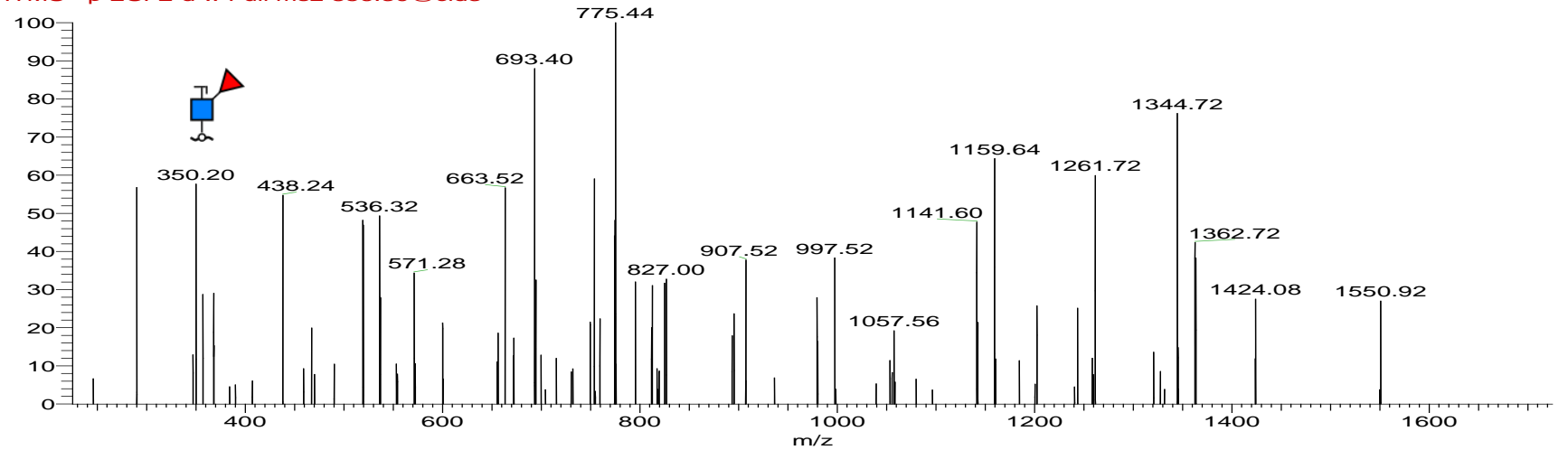
RS\_B3\_061017 #2834 RT: 38.02 AV: 1 NL: 2.12E1  
F: ITMS - p ESI E d w Full ms2 856.30@cid3



27d



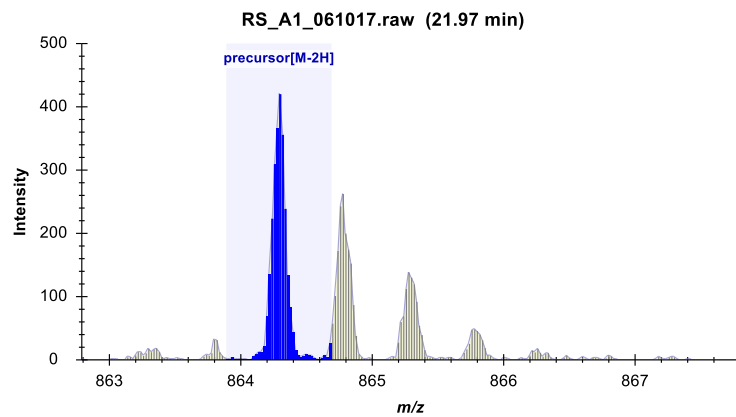
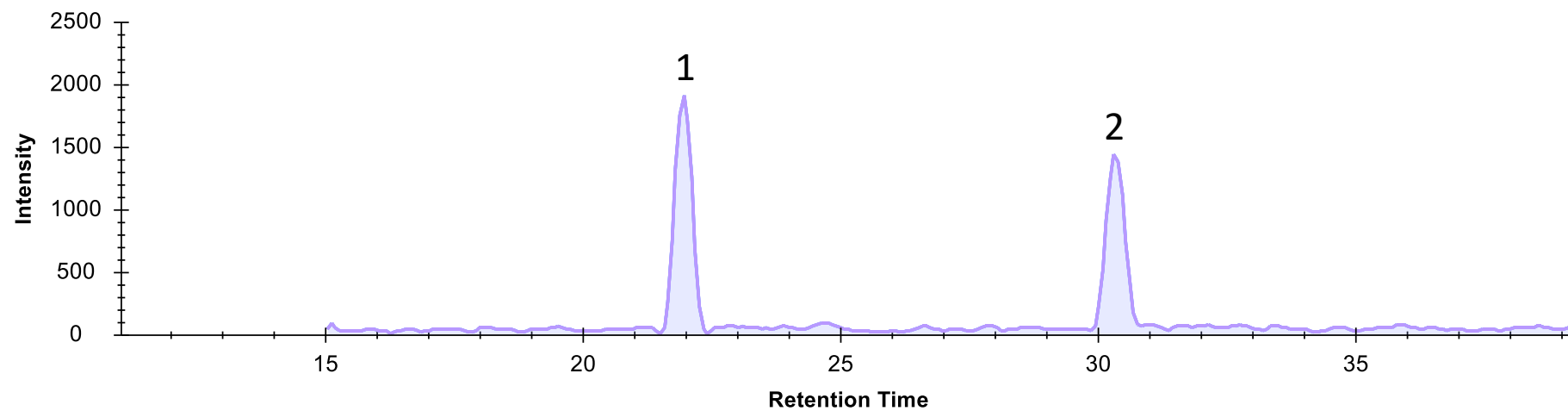
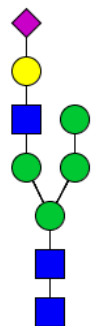
RS\_B3\_061017 #3363 RT: 45.48 AV: 1 NL: 1.02E1  
F: ITMS - p ESI E d w Full ms2 856.30@cid3



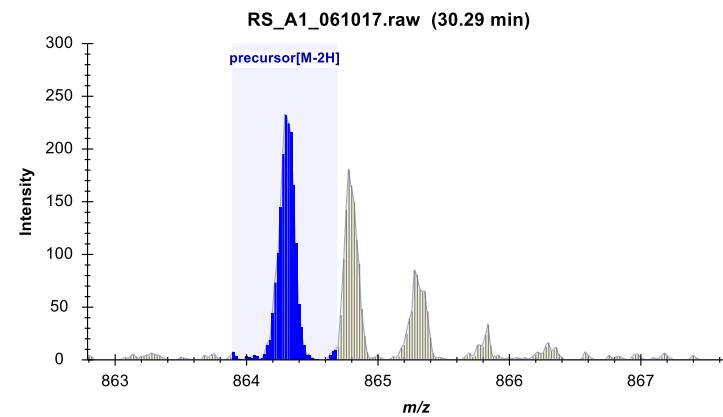
(Hex)2 (HexNAc)1 (NeuAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G29203KL

[M-2H]<sup>-</sup> 864.29



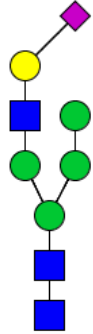
28a



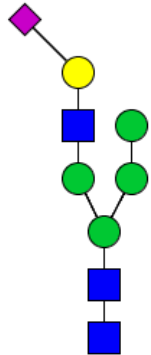
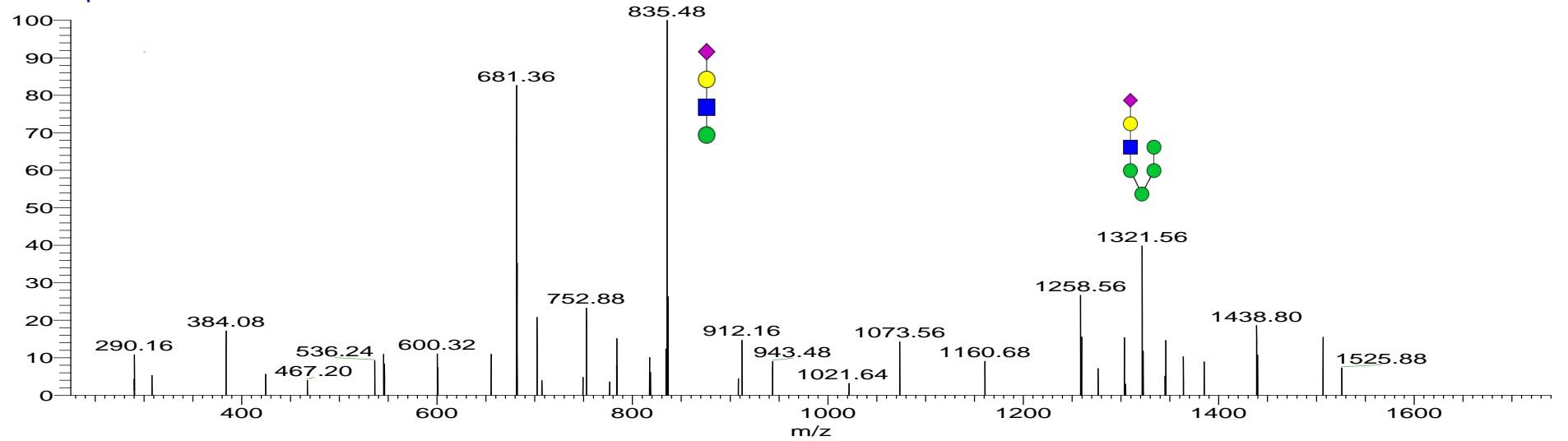
28b

GlytouCan ID: G29203KL

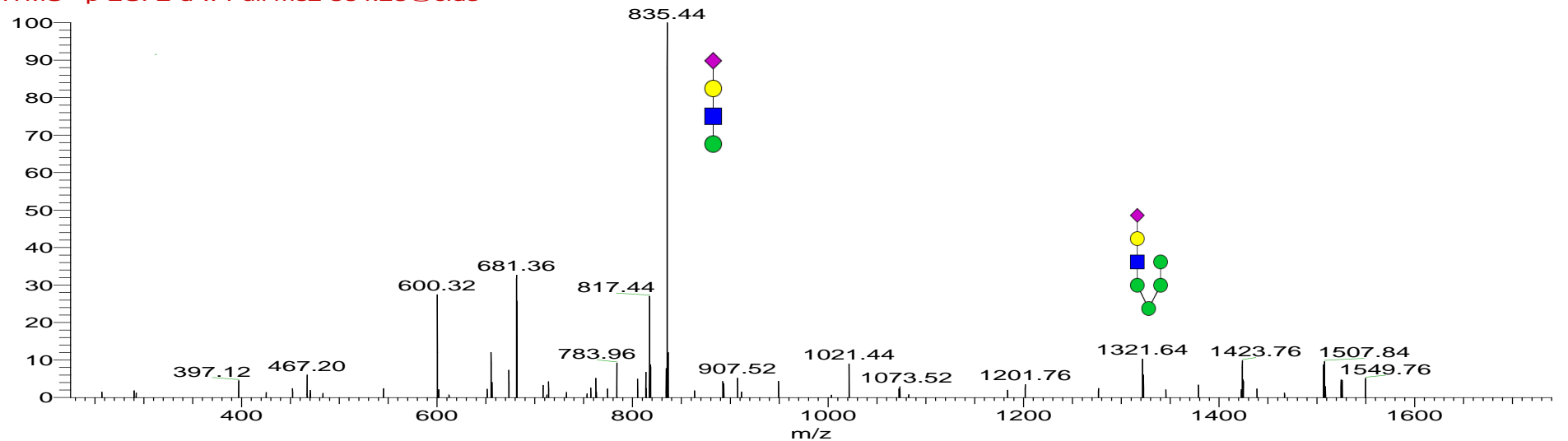
CID-MS/MS  
( $m/z$  864.33  $^{2-}$ )



RS\_D1\_061017 #2301 RT: 30.17 AV: 1 NL: 1.52E1  
T: ITMS - p ESI E d w Full ms2 864.33@cid3



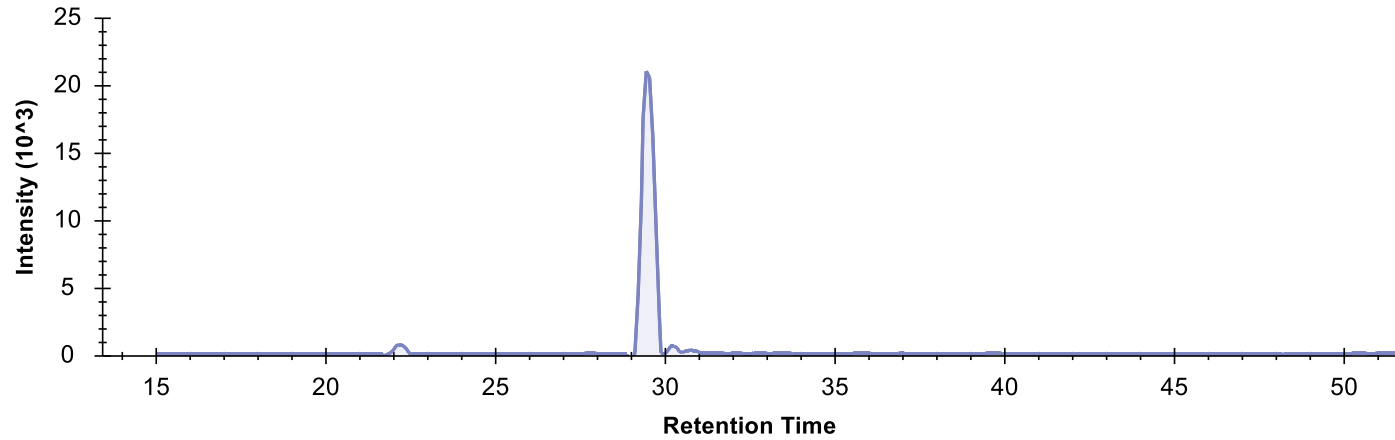
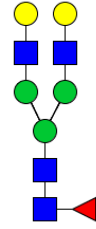
rs\_d1\_061017 #1664 RT: 21.58 AV: 1 NL: 5.67E1  
F: ITMS - p ESI E d w Full ms2 864.28@cid3



(Hex)2 (HexNAc)2 (Deoxyhexose)1 + (Man)3(GlcNAc)2

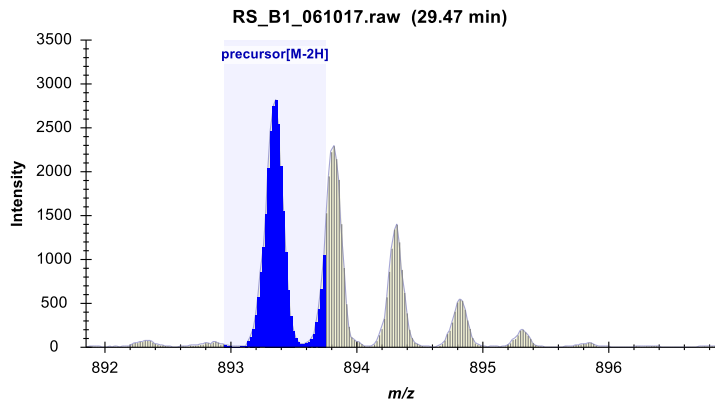
GlytouCan ID: G16768LX

[M-2H] 893.35

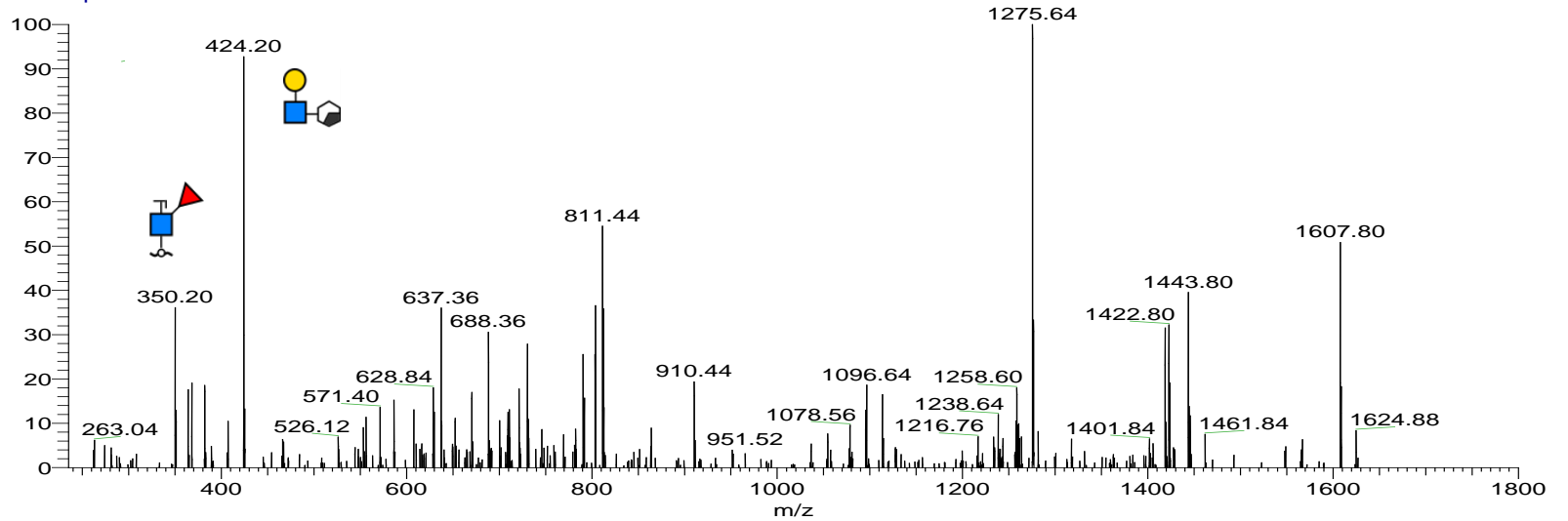


### CID-MS/MS ( $m/z$ 893.35 $^{2-}$ )

RS\_B1\_061017 #2234 RT: 29.52 AV: 1 NL: 8.72E1  
T: ITMS - p ESI E d w Full ms2 893.35@cid



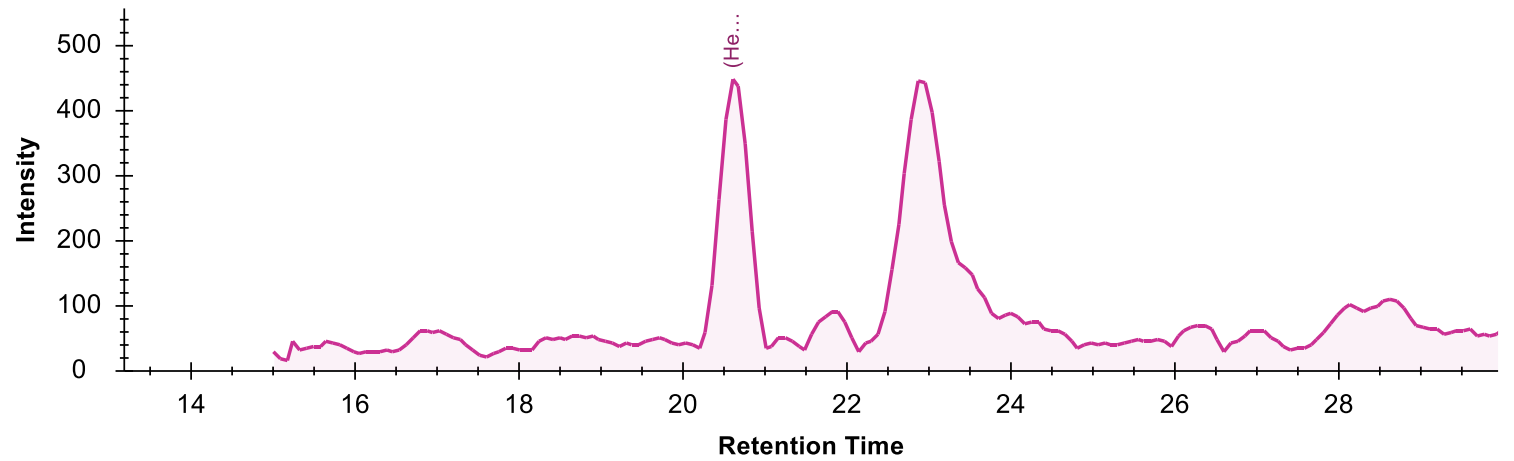
Glycan ID: 29



(HexNAc)1 (NeuAc)1 + (Man)3(GlcNAc)2

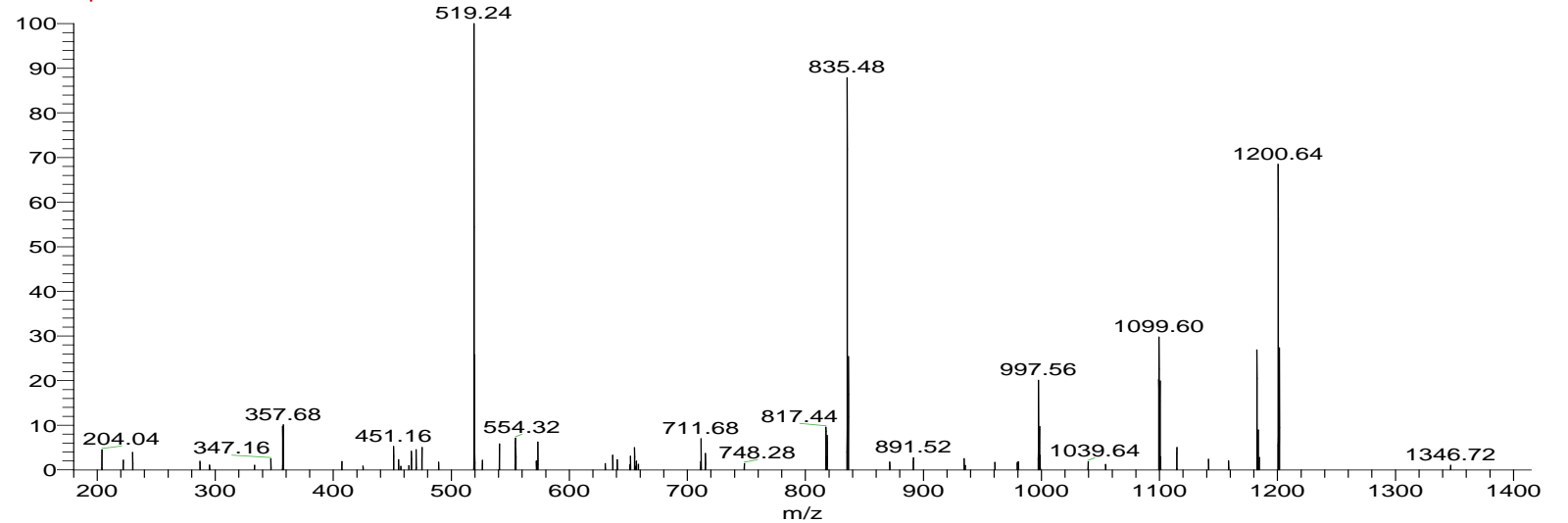
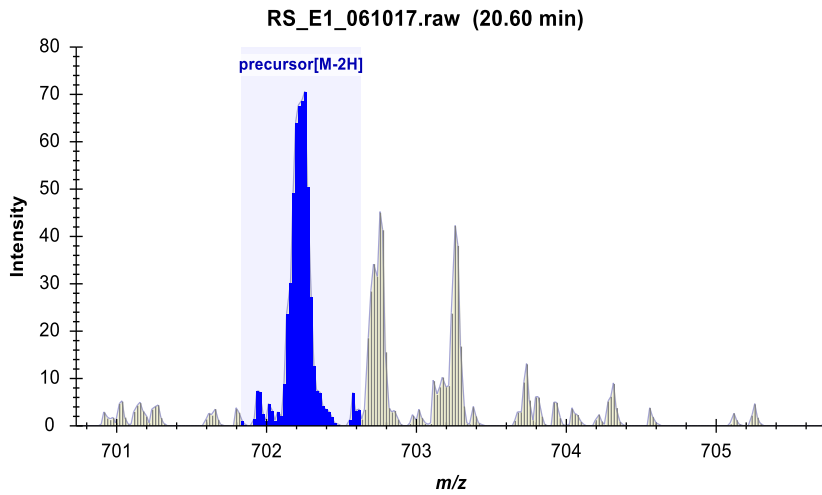
[M-2H] 702.23

O glycan contaminant?



CID-MS/MS ( $m/z$  702.23  $^{2-}$ )

RS\_C6\_061017 #1698 RT: 22.19 AV: 1 NL: 5.76E1  
E: ITMS - p ESI E d w Full ms2 702.25@cid3

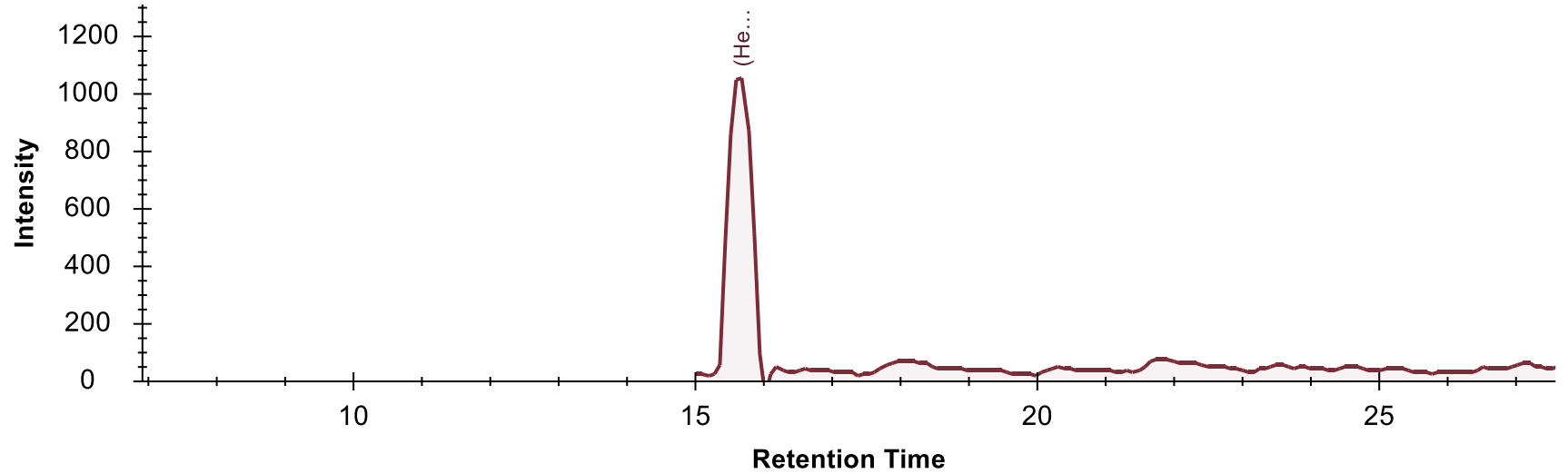
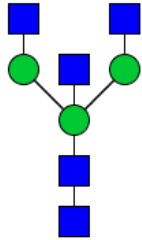


Glycan ID: 30

(HexNAc)<sub>3</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

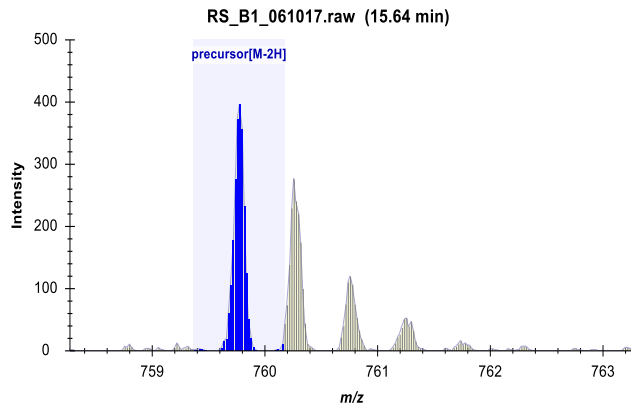
GlytouCan ID: G21251LN

[M-2H]<sup>-</sup> 759.77

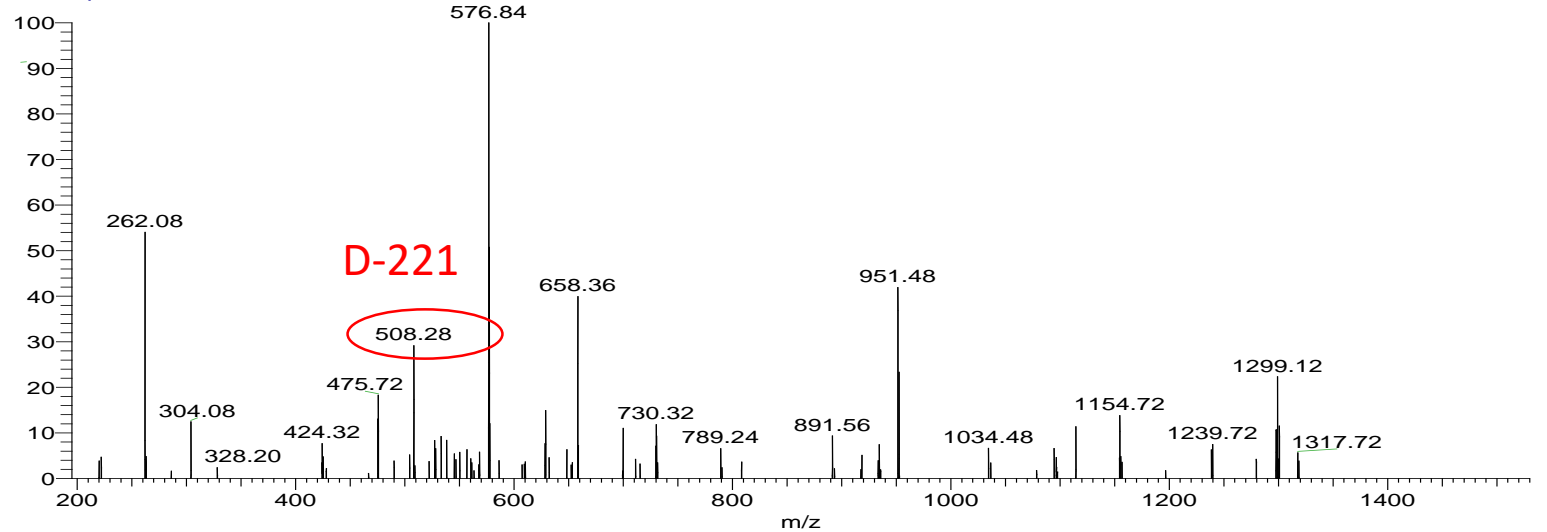


CID-MS/MS ( $m/z$  759.77<sup>2-</sup>)

RS\_C1\_061017 #1204 RT: 15.64 AV: 1 NL: 2.97E1  
T: ITMS - p ESI E d w Full ms2 759.77@cid3

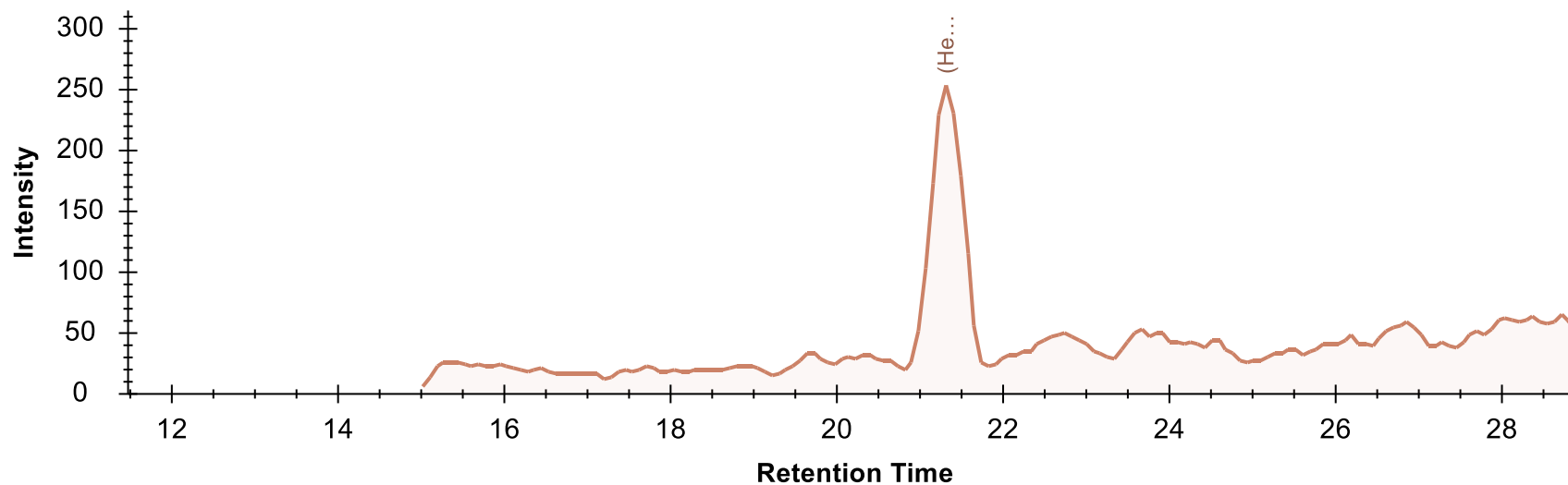
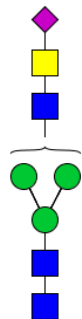


Glycan ID: 31



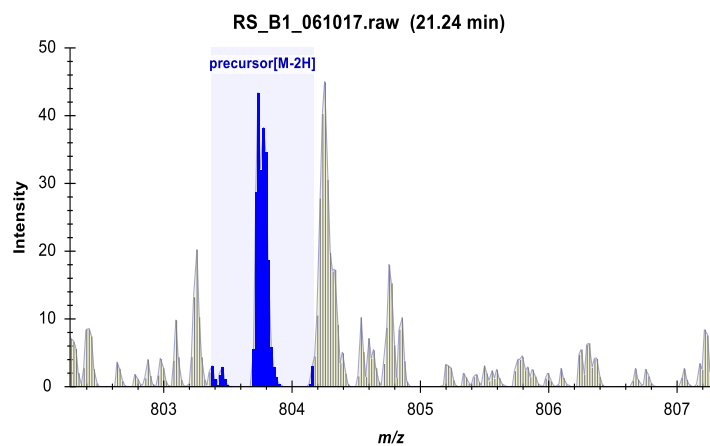
(HexNAc)<sub>2</sub> (NeuAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

[M-2H]<sup>-</sup> 803.77

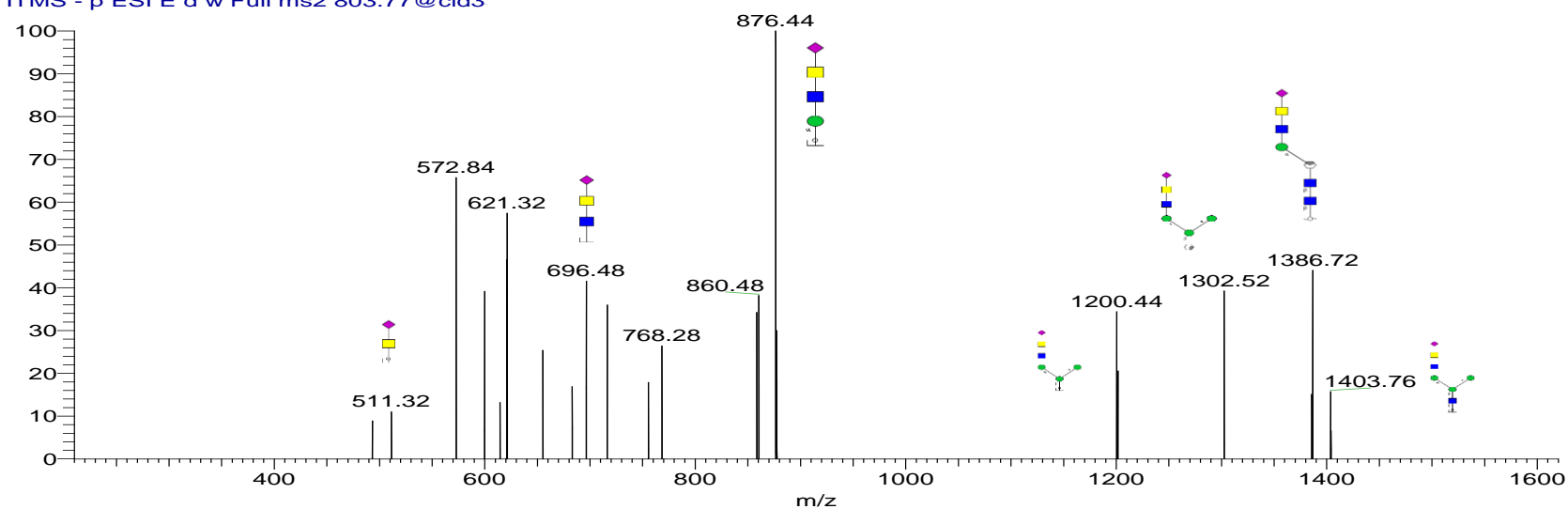


CID-MS/MS ( $m/z$  803.77<sup>2-</sup>)

RS\_E1\_061017 #1651 RT: 21.61 AV: 1 NL: 6.99  
T: ITMS - p ESI E d w Full ms2 803.77@cid3

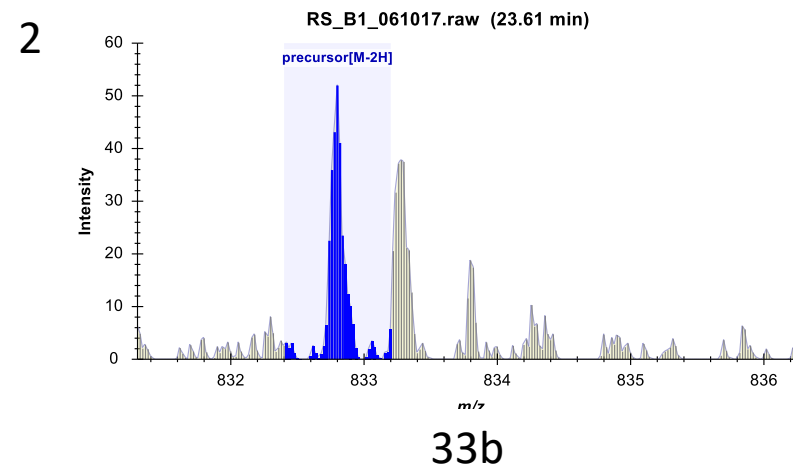
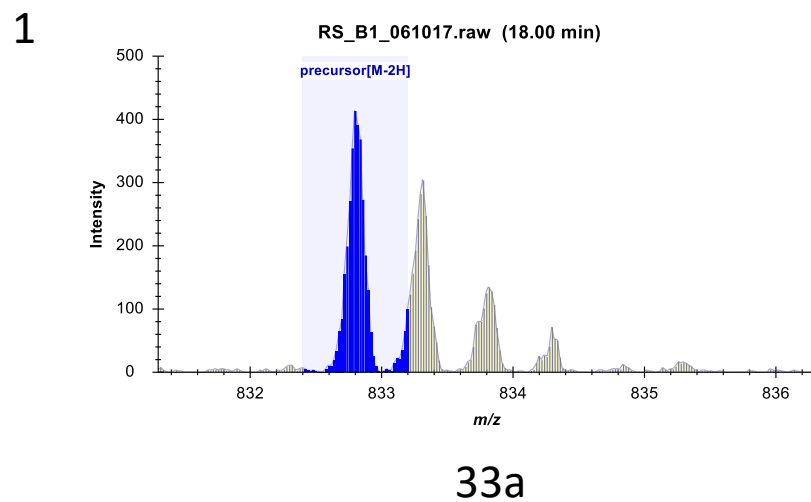
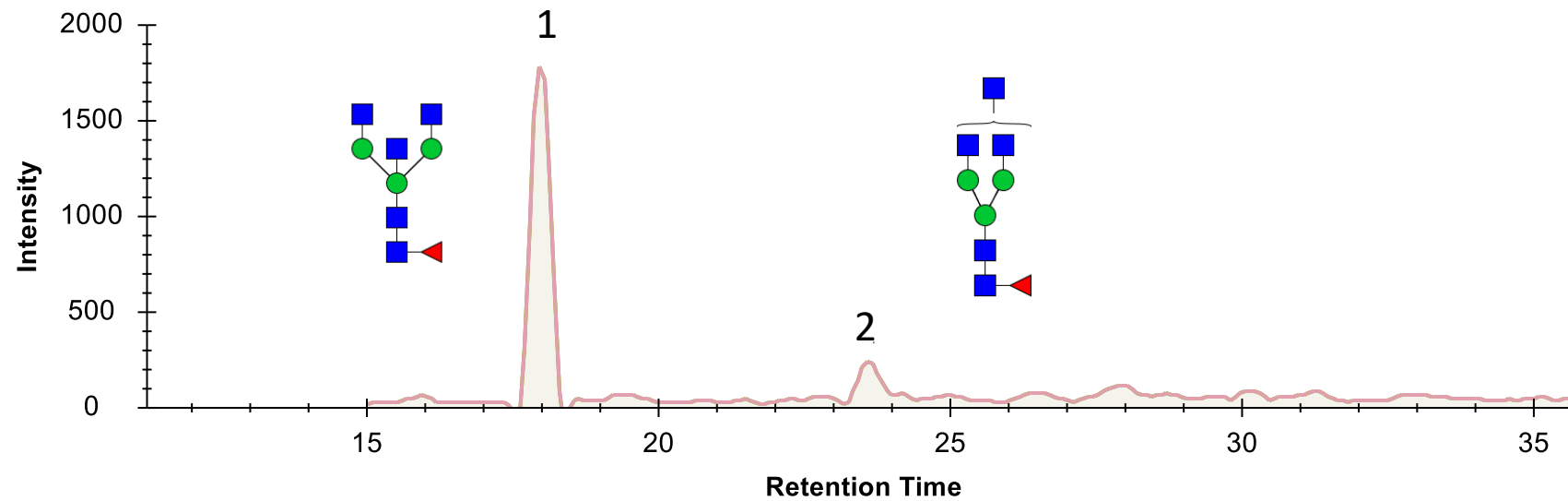


Glycan ID: 32



(HexNAc)<sub>3</sub> (Deoxyhexose)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

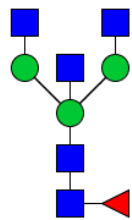
[M-2H] 832.8



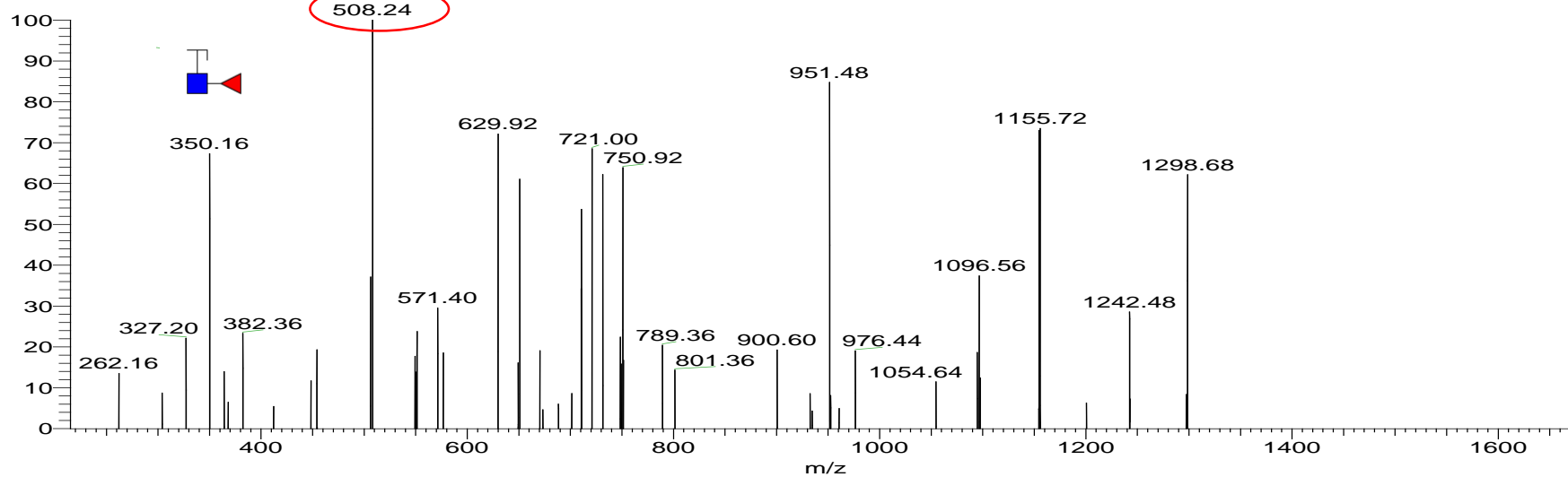


CID-MS/MS  
( $m/z$  832.82<sup>2-</sup>)

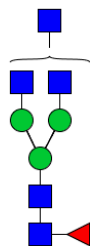
33a



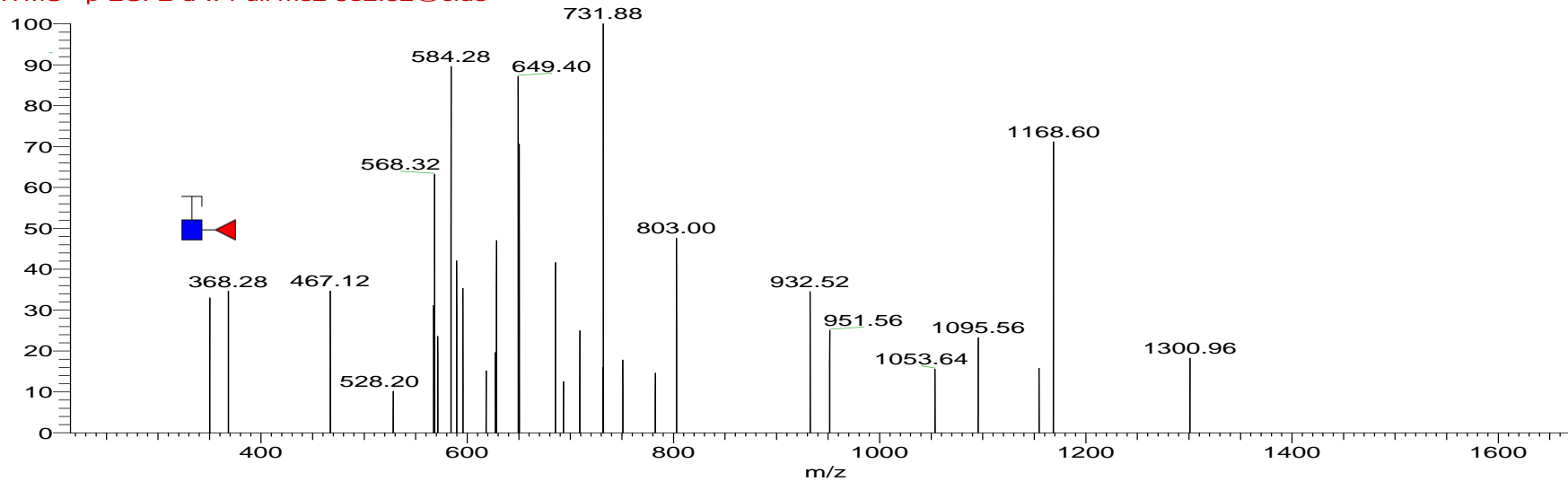
D-221  
rs\_b7\_061017 #1505 RT: 19.51 AV: 1 NL: 6.46  
F: ITMS - p ESI E d w Full ms2 832.82@cid3



33b



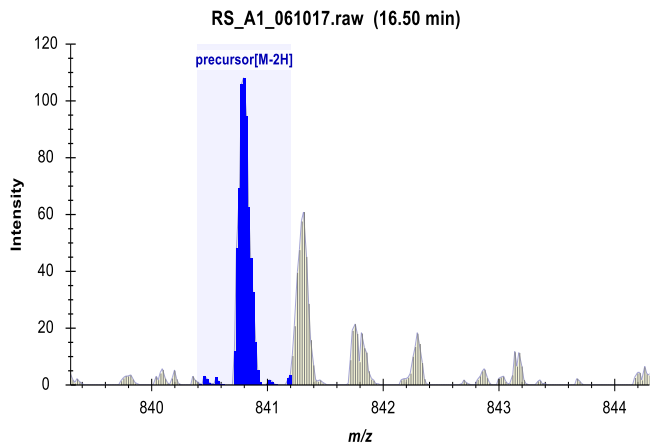
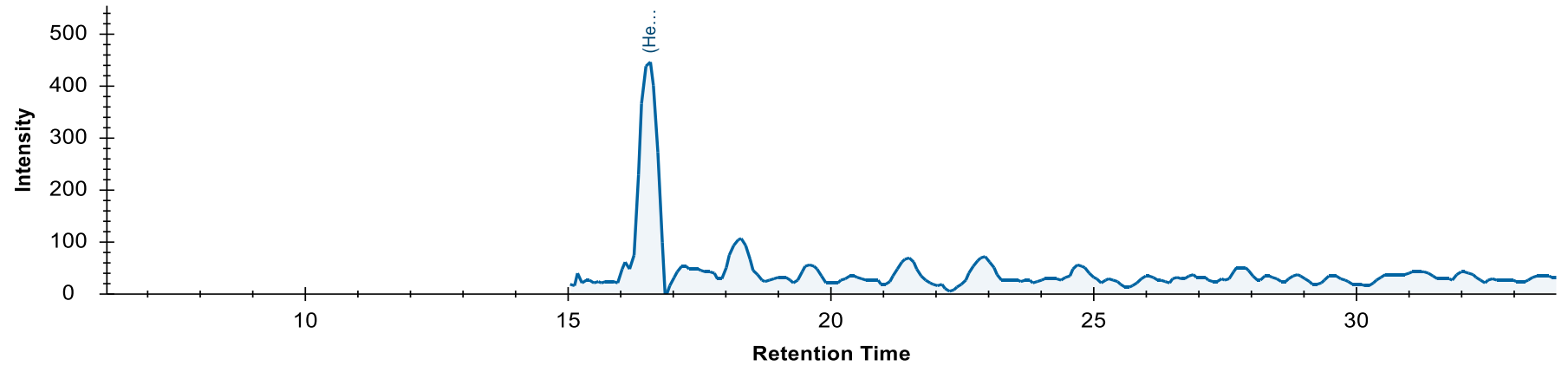
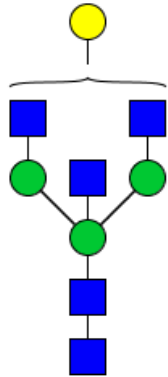
rs\_b7\_061017 #1987 RT: 26.10 AV: 1 NL: 4.12  
F: ITMS - p ESI E d w Full ms2 832.82@cid3



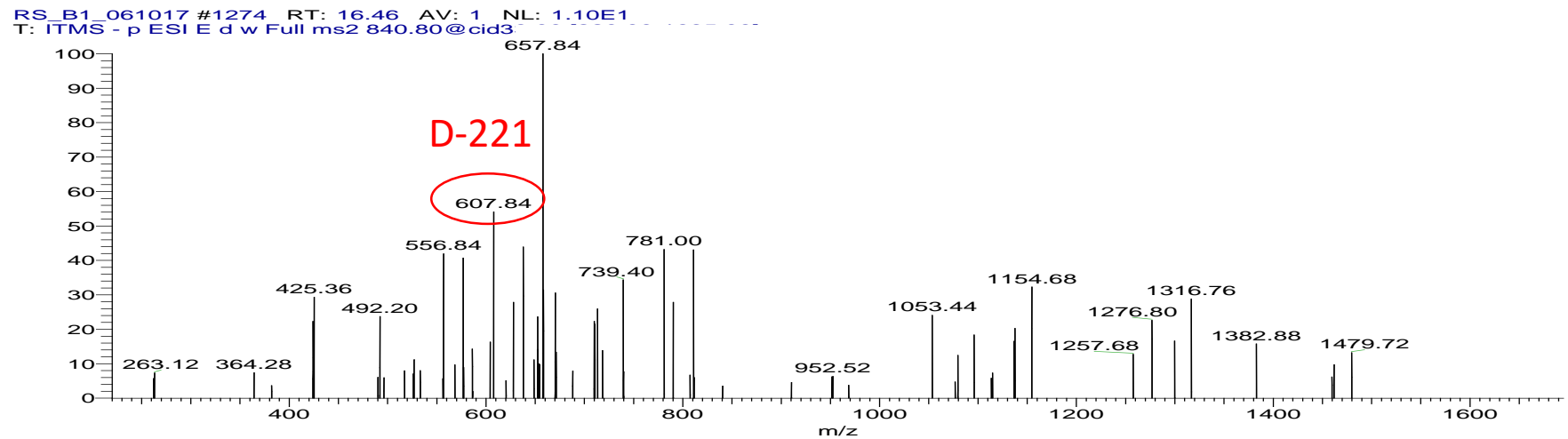
(Hex)1 (HexNAc)3 + (Man)3(GlcNAc)2

GlytouCan ID: G85287WC

[M-2H] 840.8

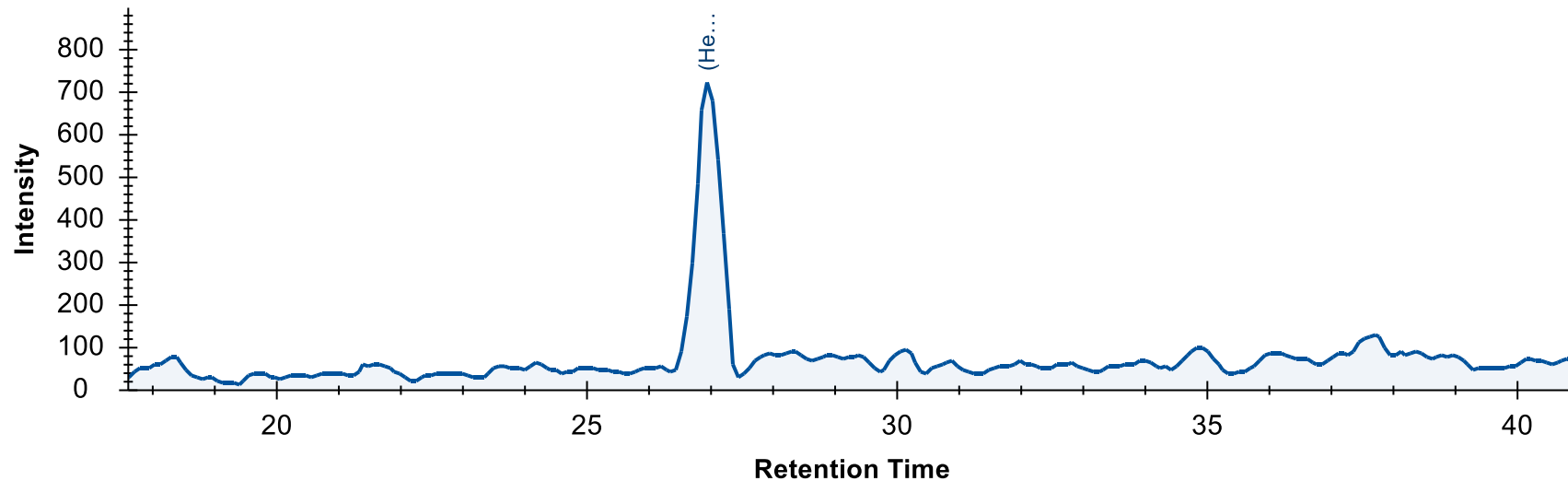
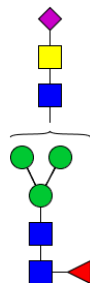


Glycan ID: 34

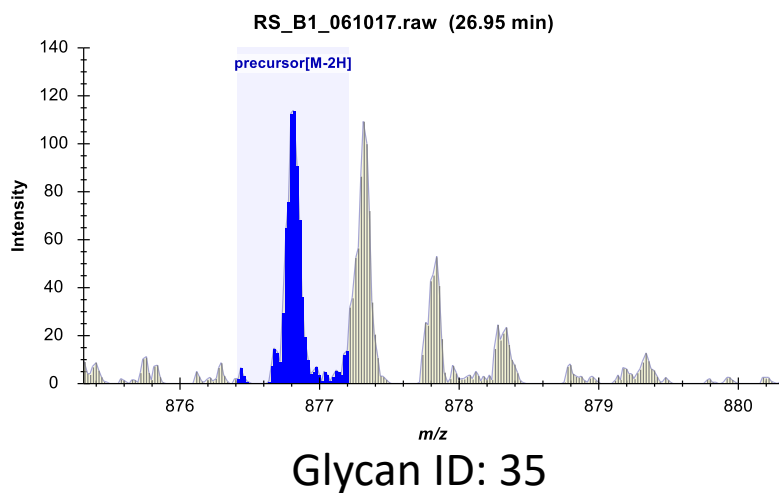


(HexNAc)<sub>2</sub> (Deoxyhexose)<sub>1</sub> (NeuAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

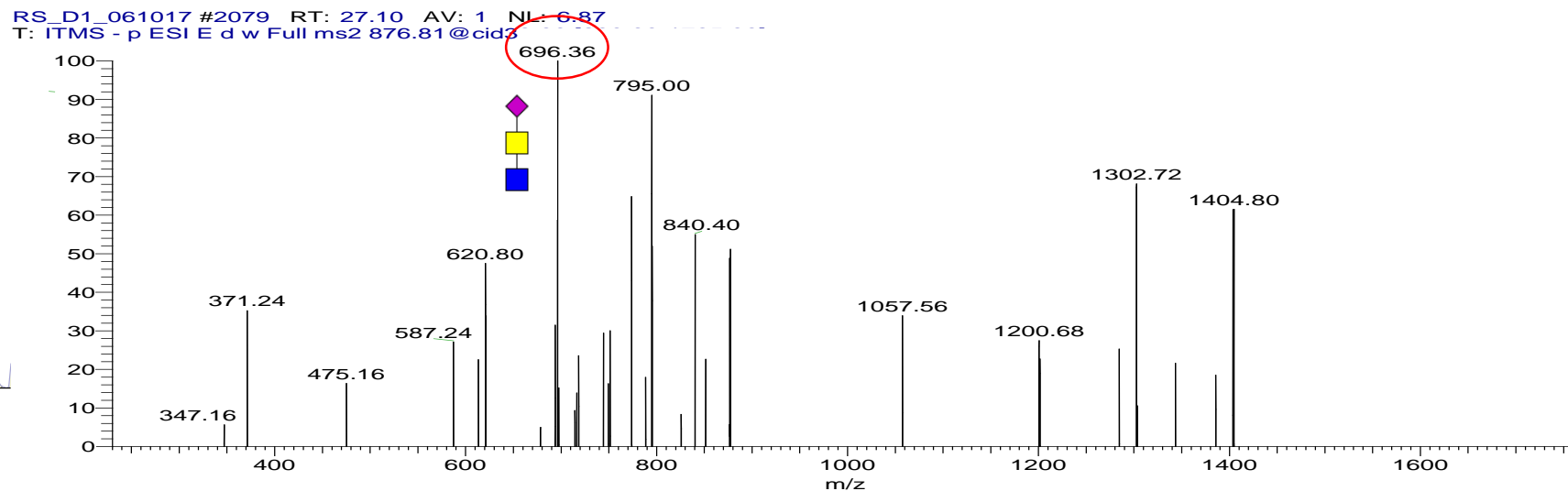
[M-2H]<sup>-</sup> 876.81



CID-MS/MS ( $m/z$  876.81<sup>2-</sup>)

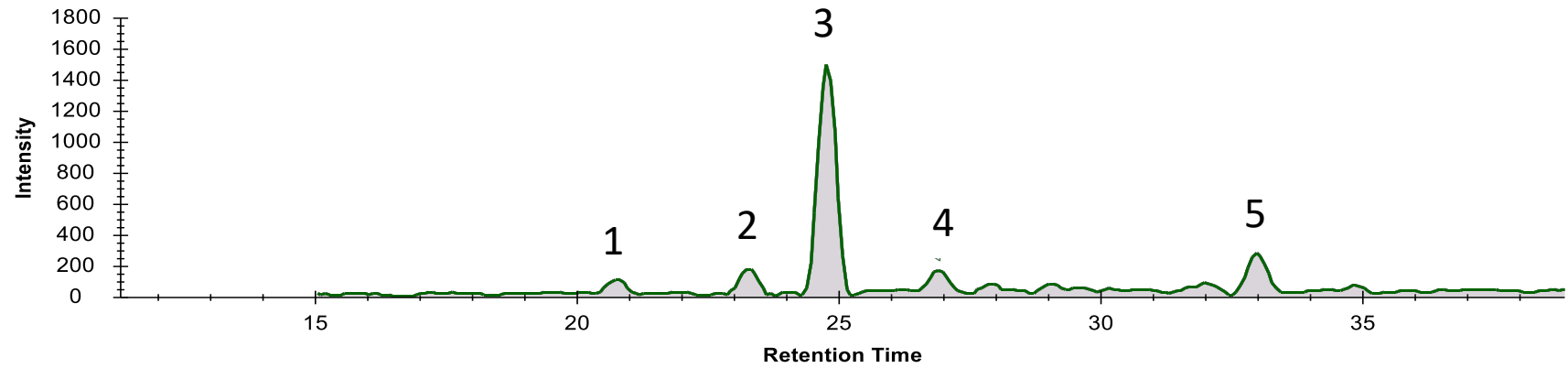
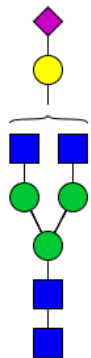


Glycan ID: 35

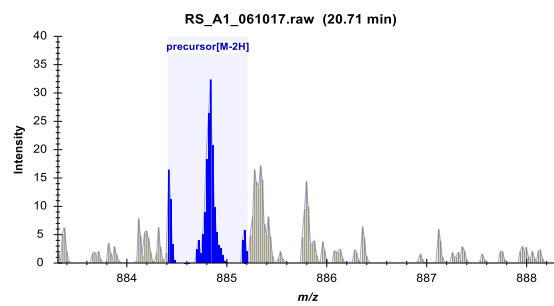


(Hex)1 (HexNAc)2 (NeuAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G62446JD

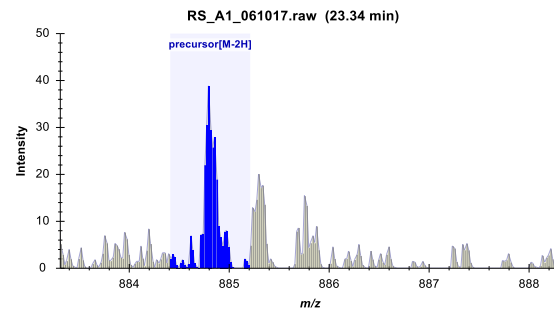


1



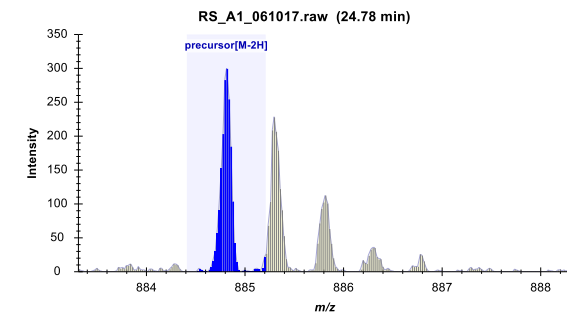
36a

2



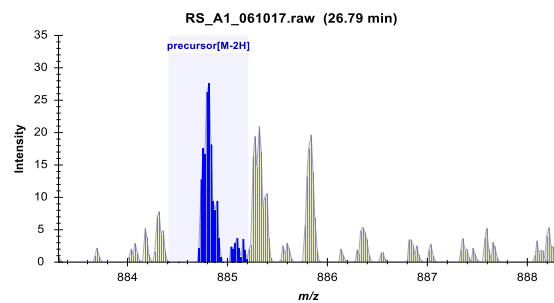
36b

3



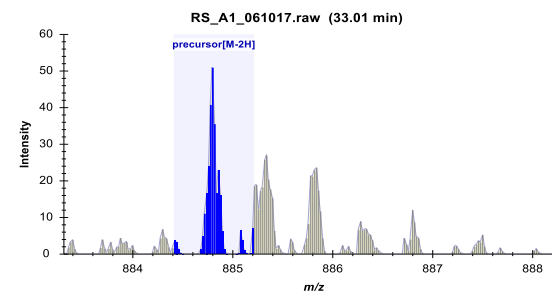
36c

4



36d

5



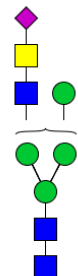
36e

GlytouCan ID: G62446JD

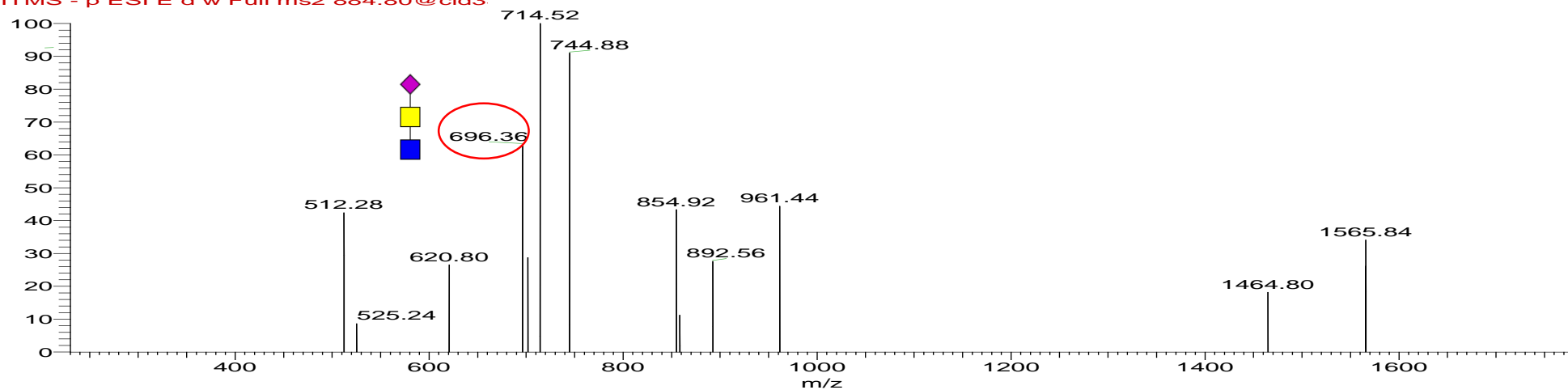
CID-MS/MS

( $m/z$  884.80<sup>2-</sup>)

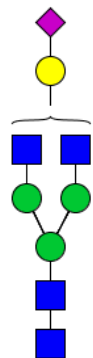
36a



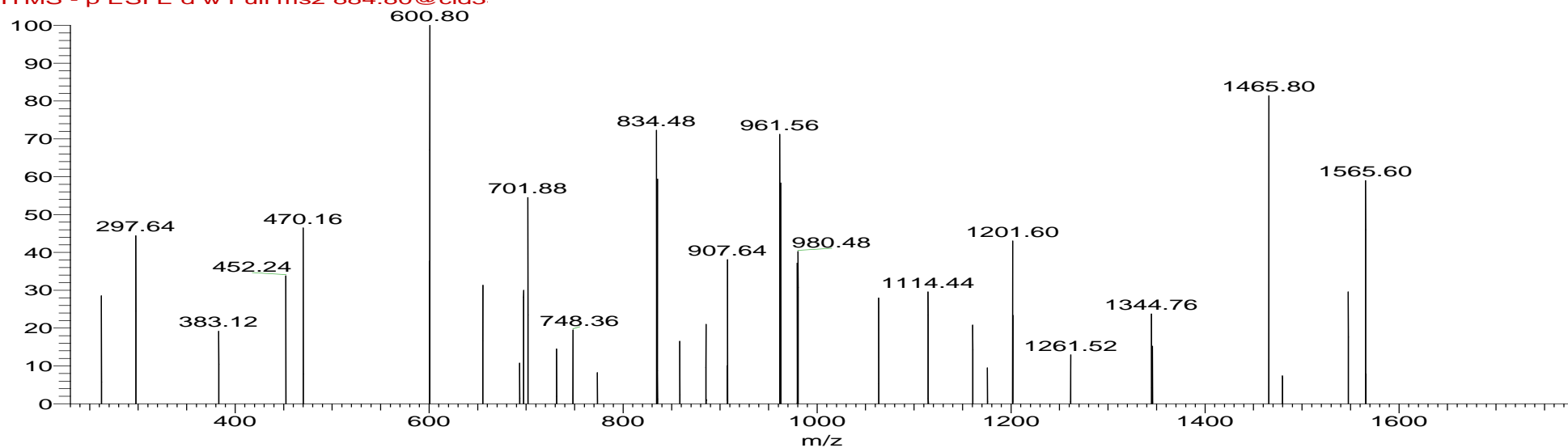
rs\_h1\_061017 #1554 RT: 20.40 AV: 1 NL: 4.26  
F: ITMS - p ESI E d w Full ms2 884.80@cid3



36b



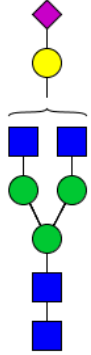
rs\_b1\_061017 #1764 RT: 23.04 AV: 1 NL: 5.27  
F: ITMS - p ESI E d w Full ms2 884.80@cid3



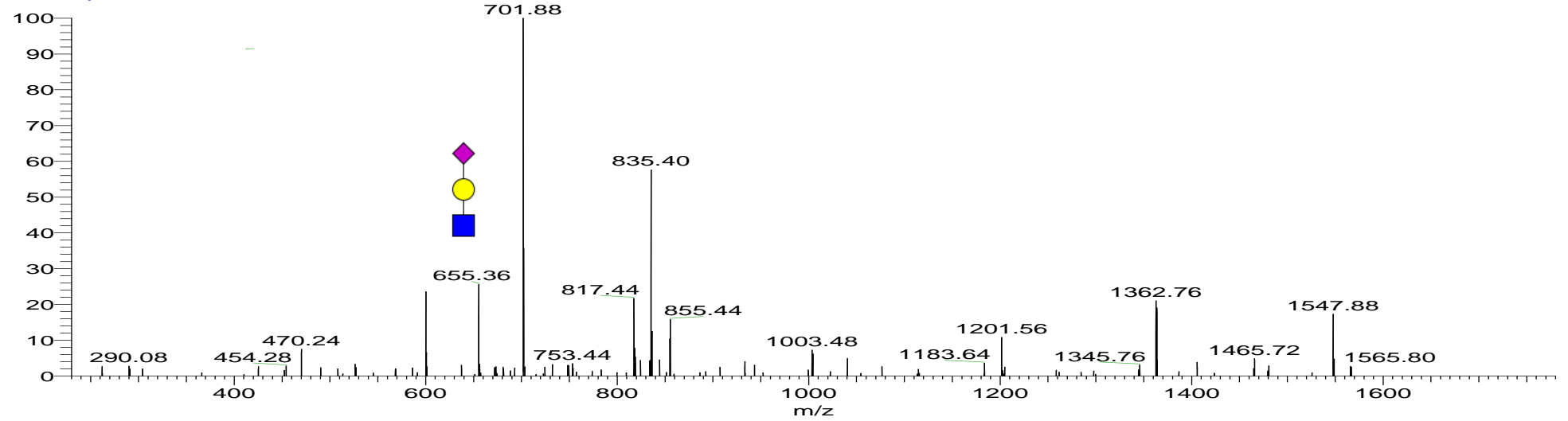
GlytouCan ID: G62446JD

CID-MS/MS  
( $m/z$  884.80<sup>2-</sup>)

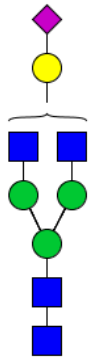
36c



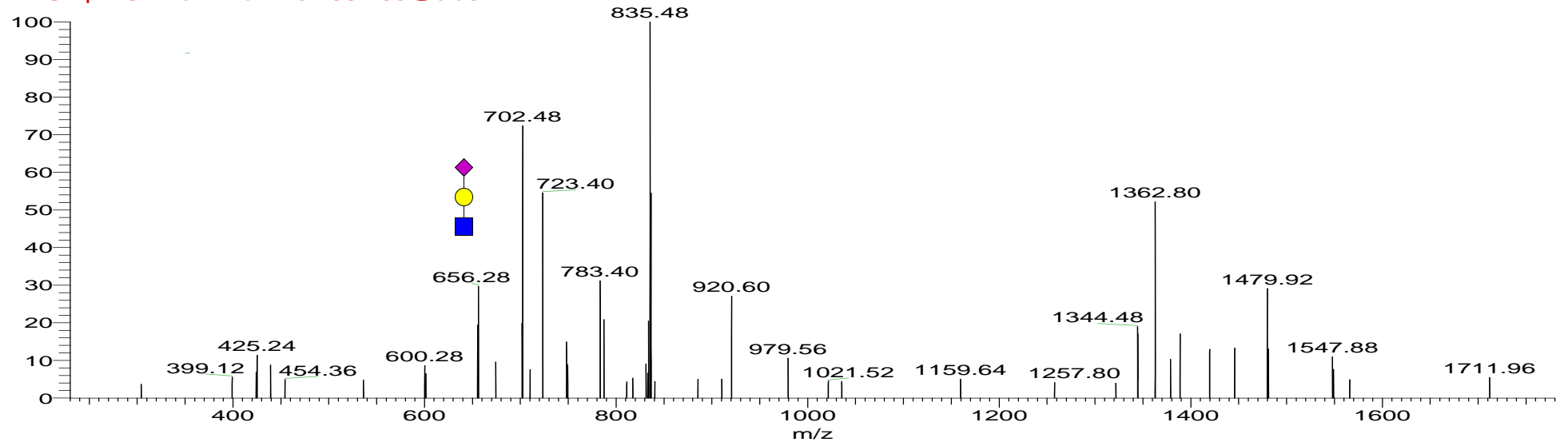
RS\_B1\_061017 #1868 RT: 24.47 AV: 1 NL: 8.96E1  
T: ITMS - p ESI E d w Full ms2 884.81@cid3



36d



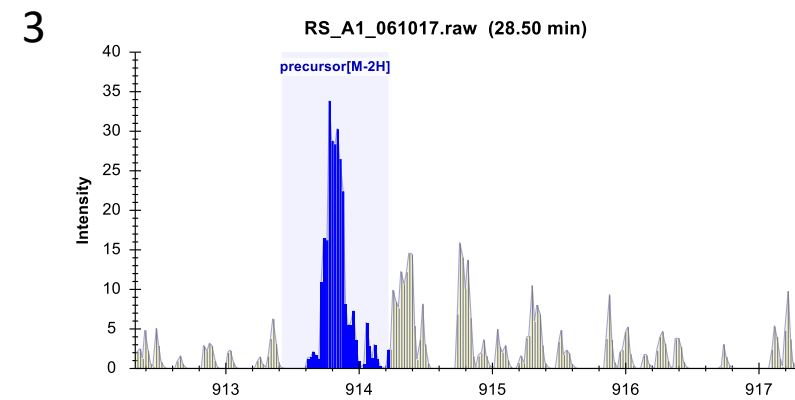
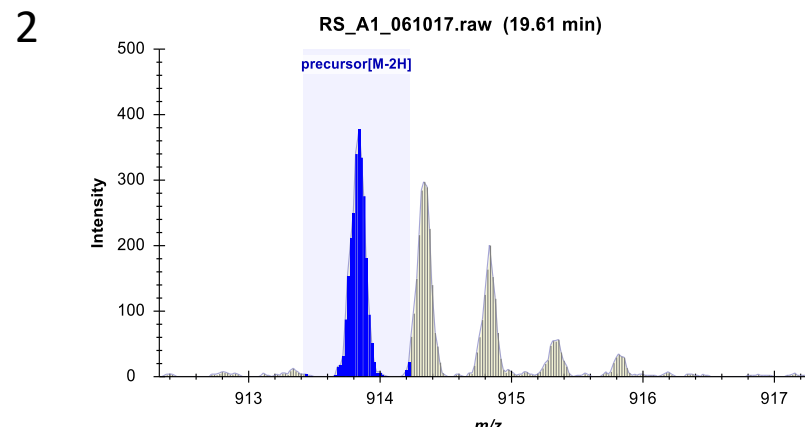
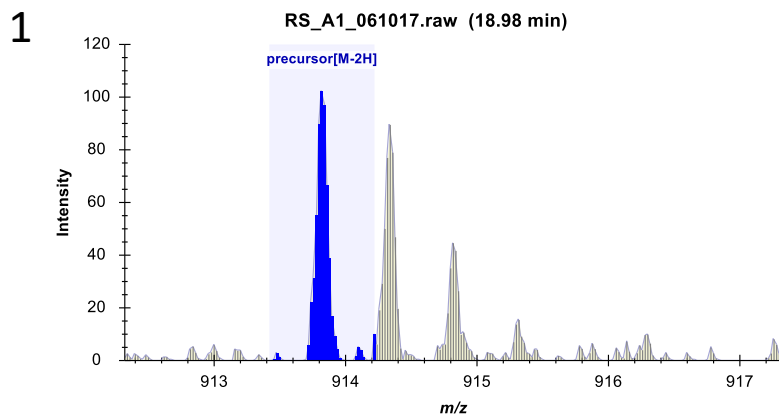
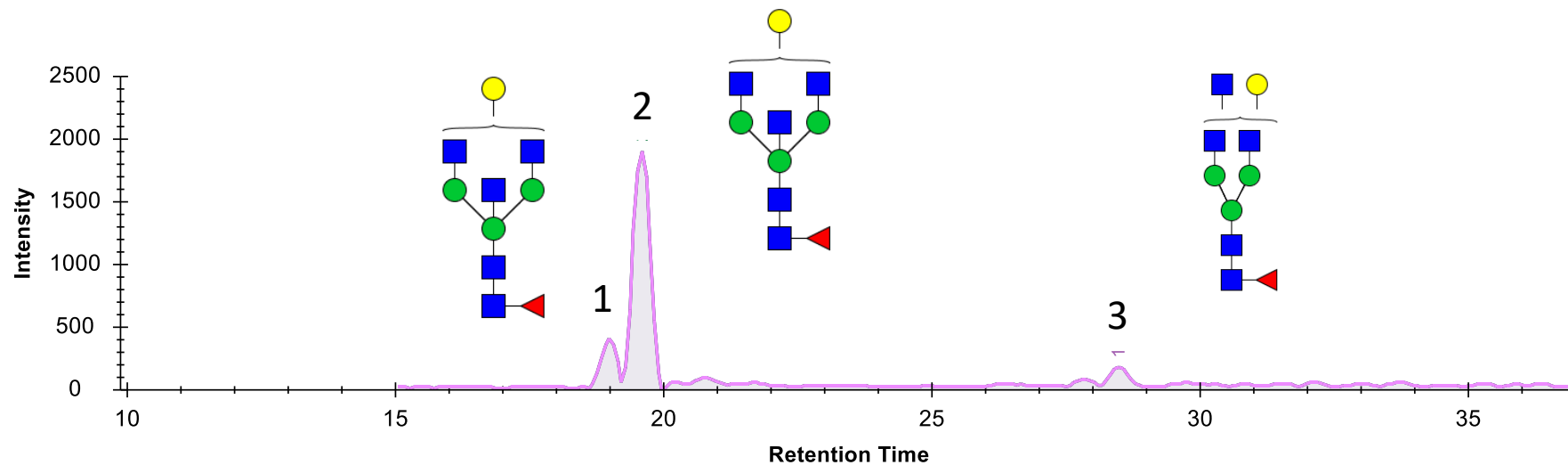
RS\_D7\_061017 #2633 RT: 34.65 AV: 1 NL: 1.22E1  
F: ITMS - p ESI E d w Full ms2 884.83@cid3



(Hex)1 (HexNAc)3 (Deoxyhexose)1 + (Man)3(GlcNAc)2

GlytouCan ID: G64661YG, G11652JU

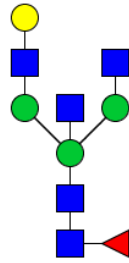
[M-2H]<sup>-</sup> 913.82



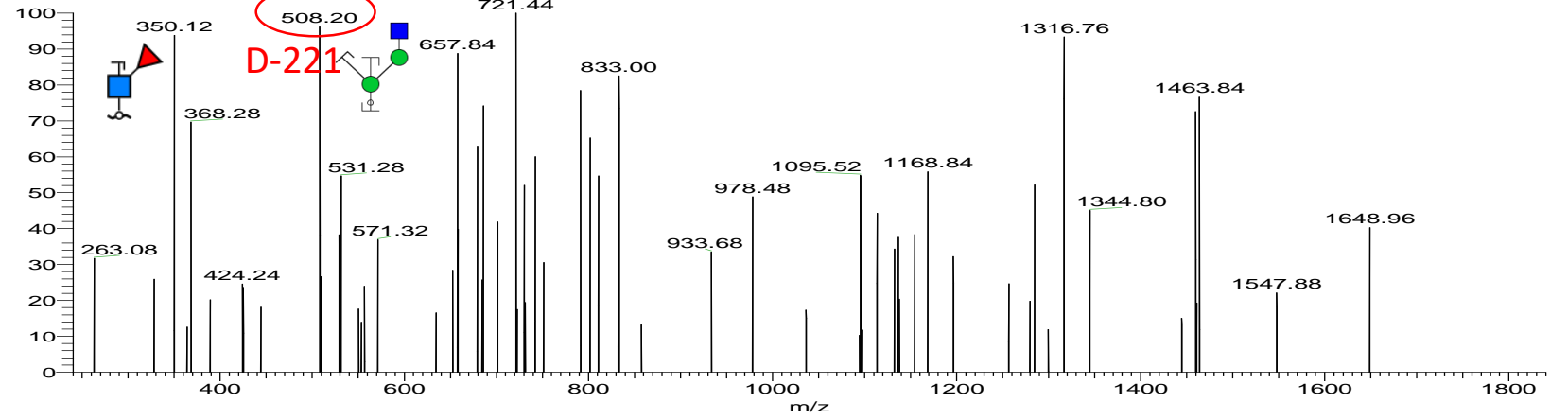
GlytouCan ID:  
G64661YG, G11652JU

CID-MS/MS  
( $m/z$  913.86<sup>2-</sup>)

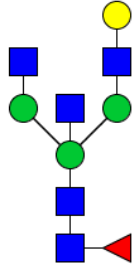
37a



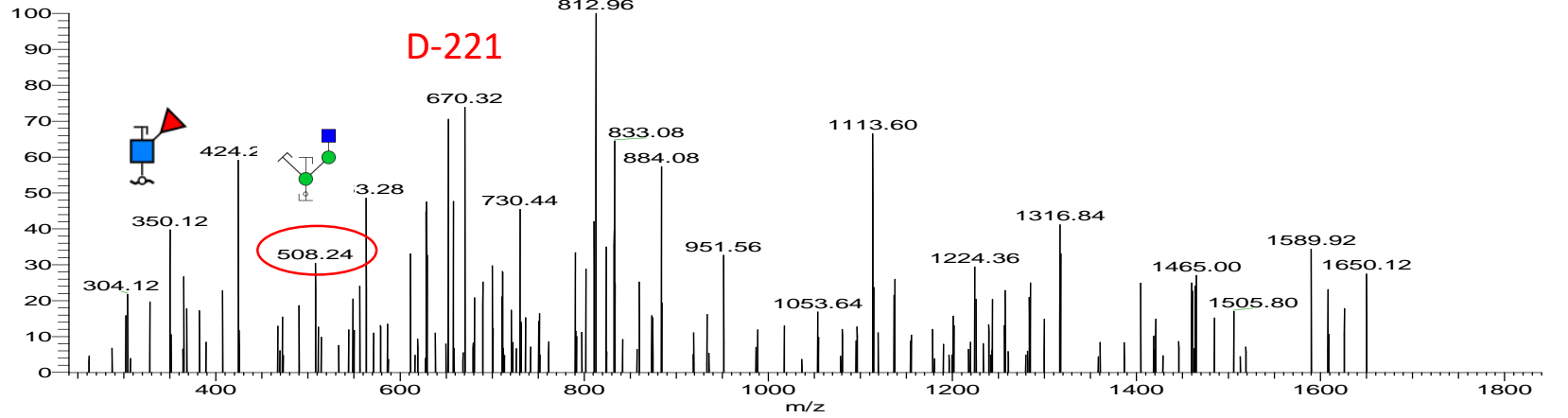
RS\_B9\_061017 #1666 RT: 21.89 AV: 1 NL: 4.03  
F: ITMS - p ESI E d w Full ms2 913.86@cid3:



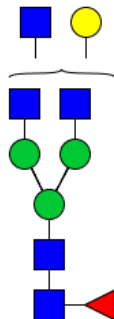
37b



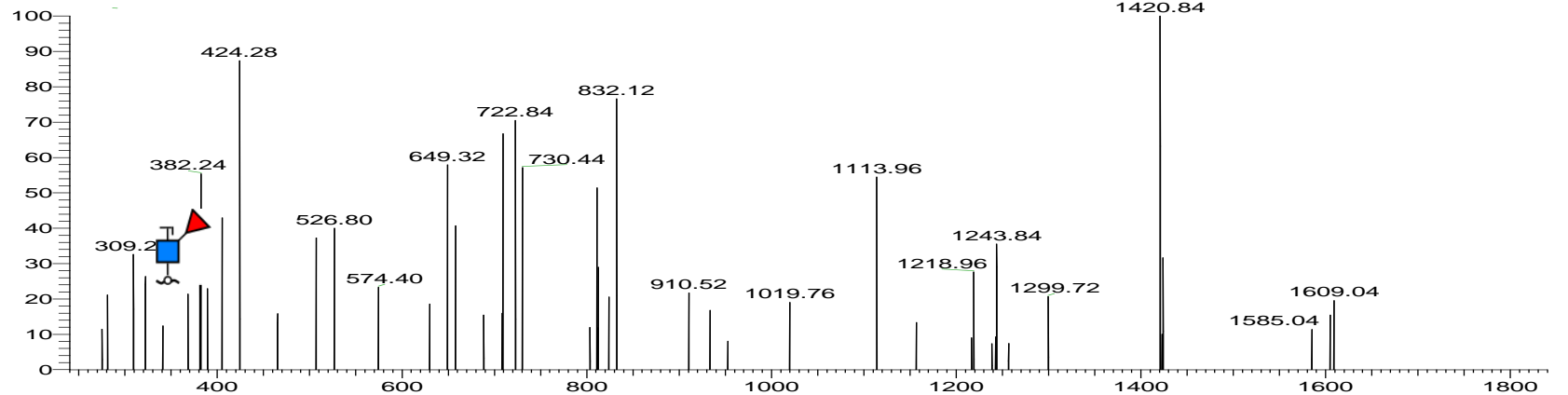
RS\_B9\_061017 #1715 RT: 22.56 AV: 1 NL: 1.10E1  
F: ITMS - p ESI E d w Full ms2 913.86@cid3:



37c



RS\_B9\_061017 #2424 RT: 32.32 AV: 1 NL: 5.34  
F: ITMS - p ESI E d w Full ms2 913.86@cid3:

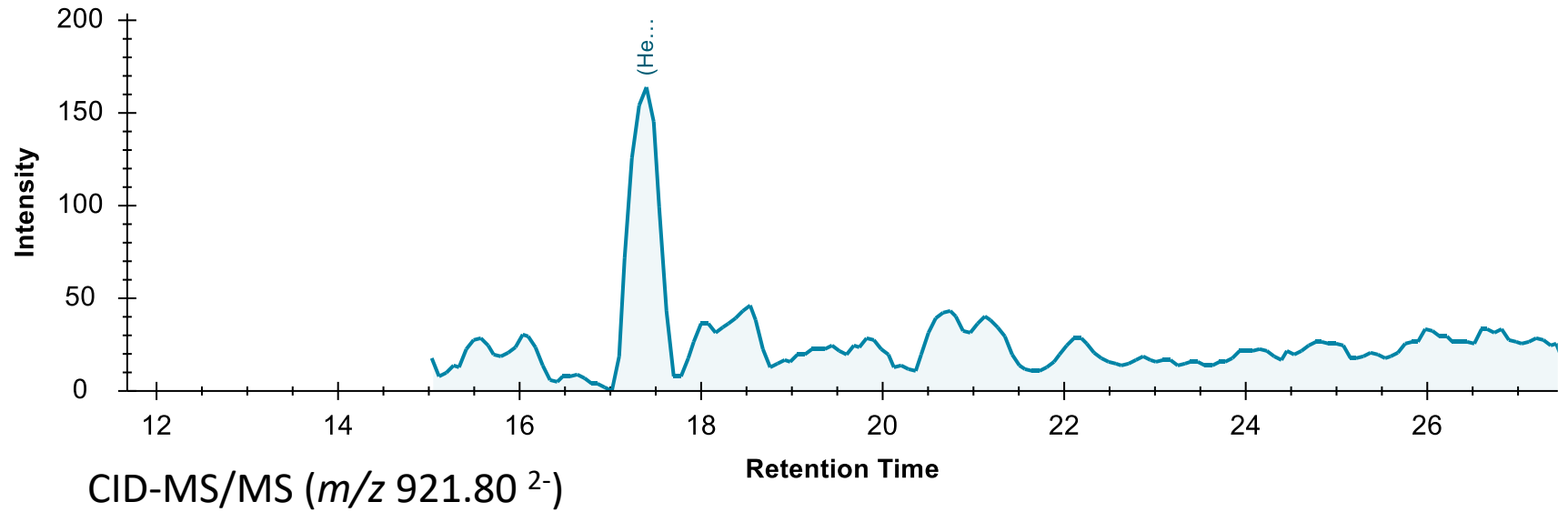
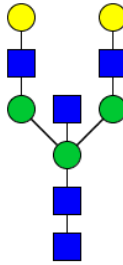




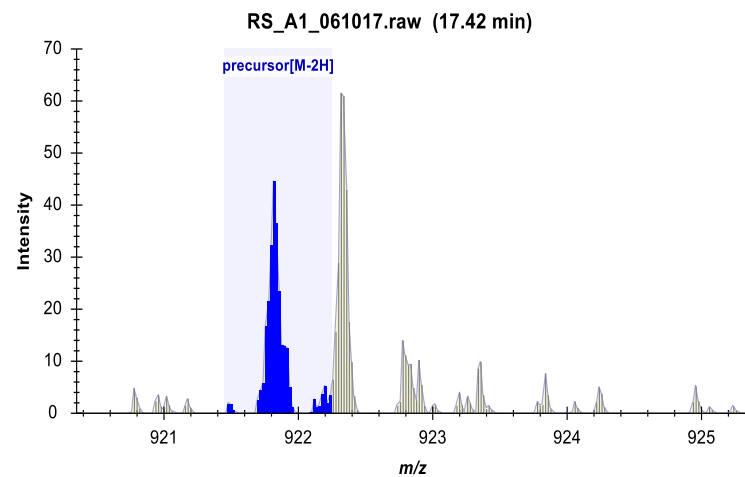
(Hex)2 (HexNAc)3 + (Man)3(GlcNAc)2

GlytouCan ID: G28183PJ

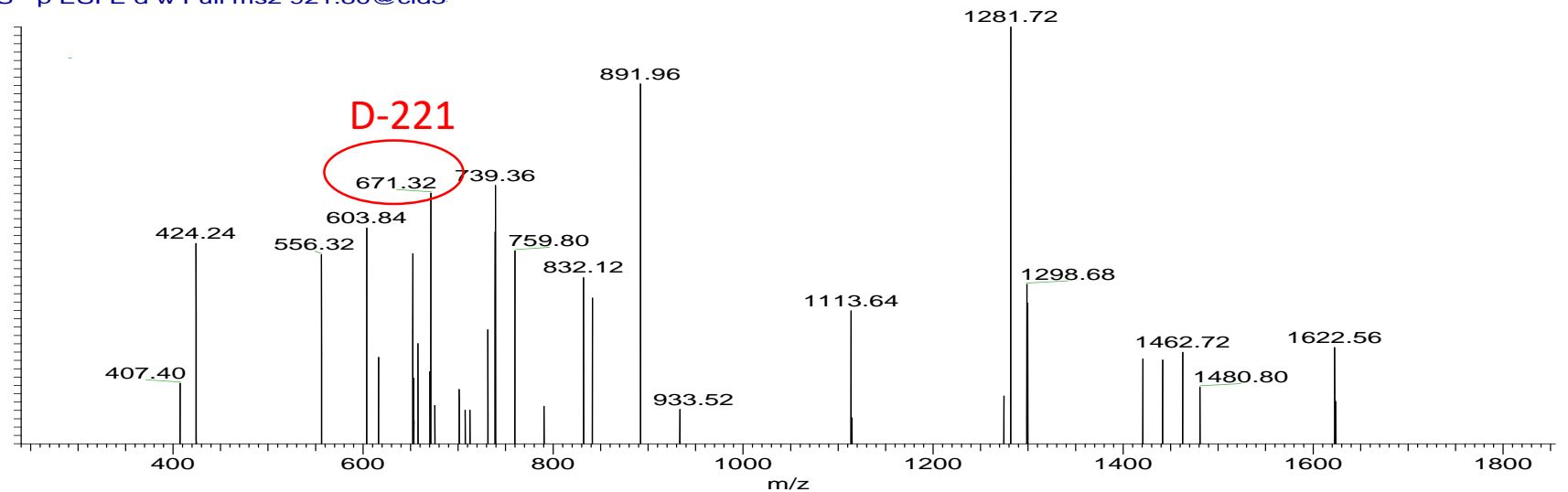
[M-2H] 921.80



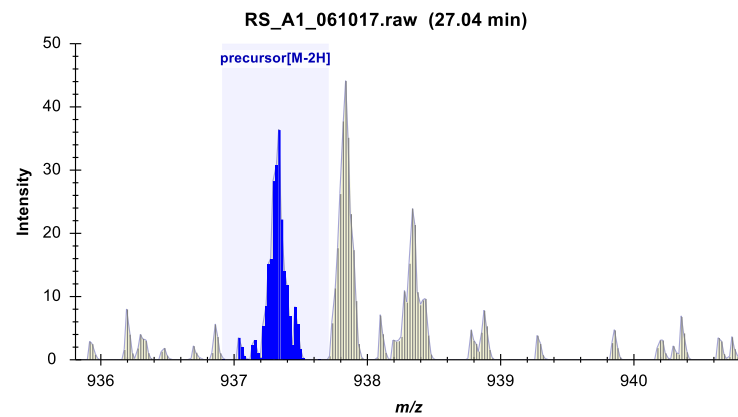
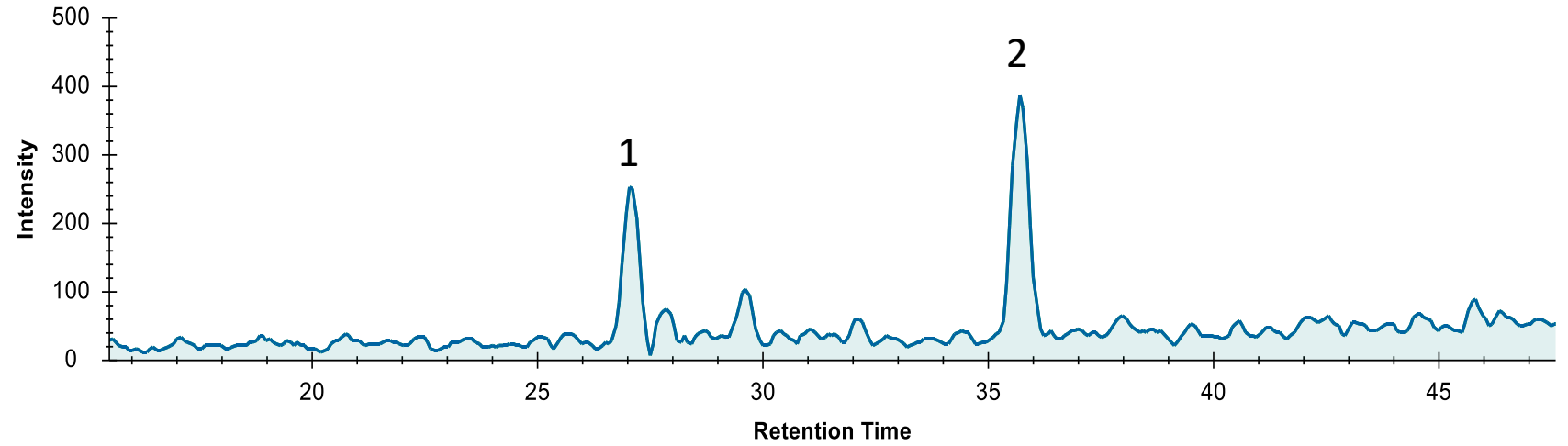
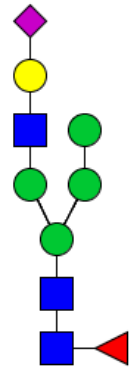
RS\_H1\_061017 #1324 RT: 17.27 AV: 1 NL: 5.29  
T: ITMS - p ESI E d w Full ms2 921.80@cid3



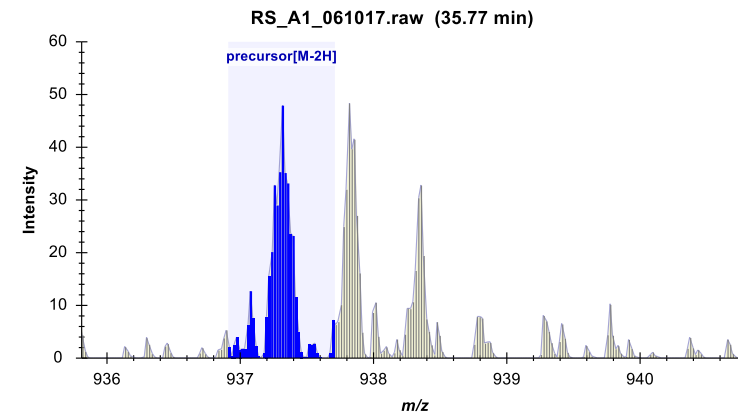
Glycan ID: 38



(Hex)2 (HexNAc)1 (Deoxyhexose)1 (NeuAc)1 +  
(Man)3(GlcNAc)2  
GlytouCan ID: G84576YN  
[M-2H] 937.31



39a



39b

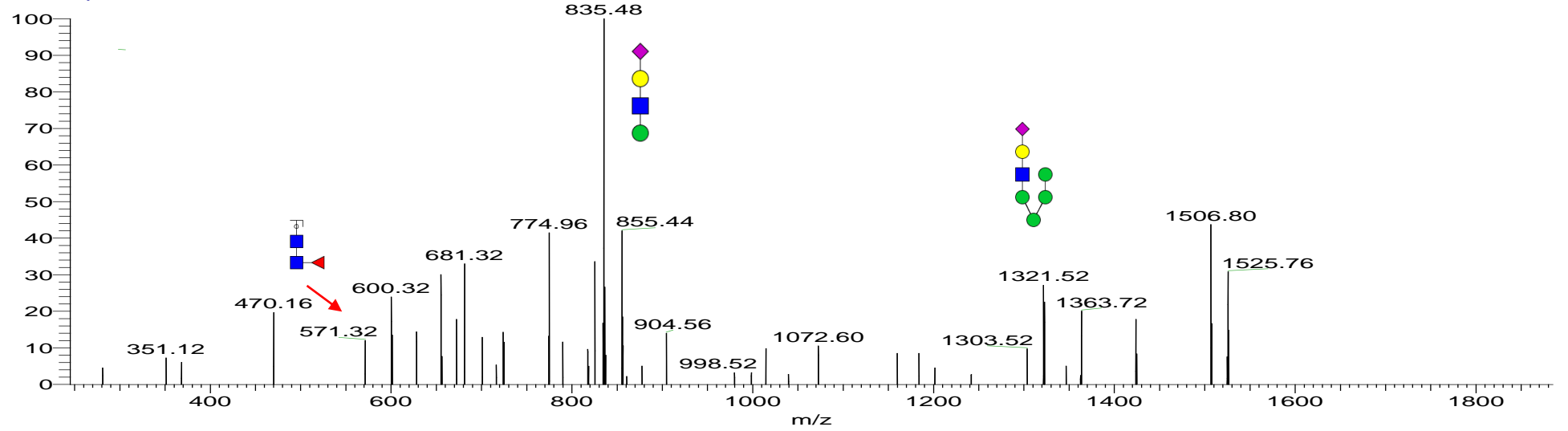
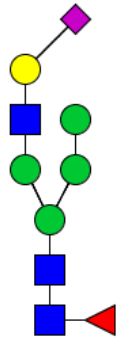
GlytouCan ID: G84576YN

CID-MS/MS

( $m/z$  937.31<sup>2-</sup>)

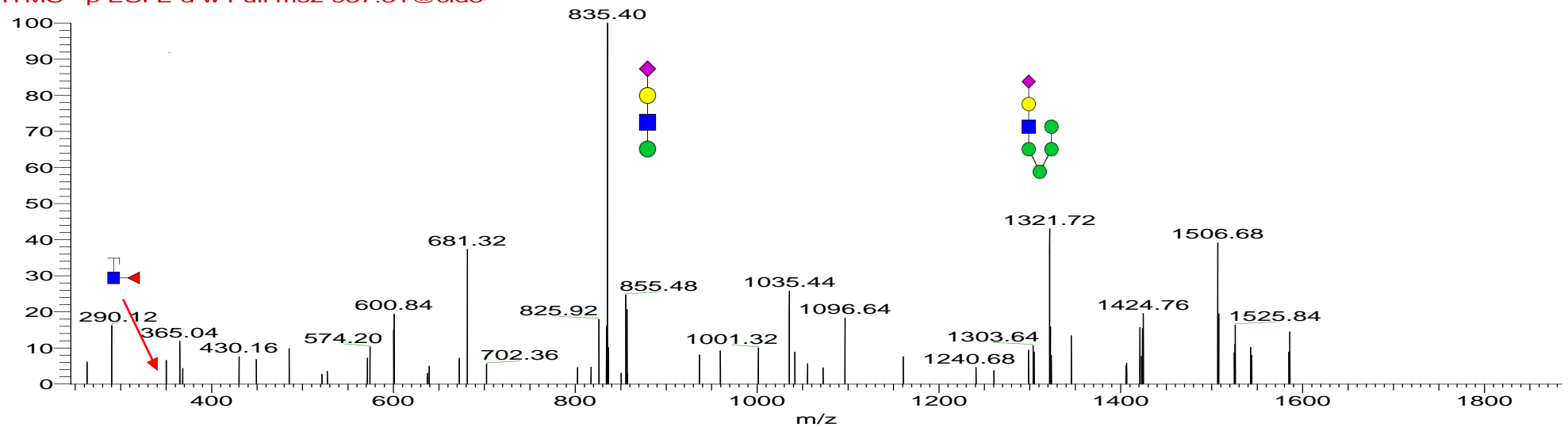
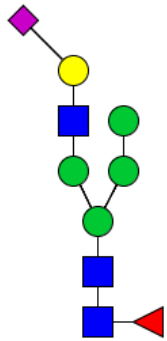
RS\_B1\_061017 #2039 RT: 26.77 AV: 1 NL: 1.81E1  
T: ITMS - p ESI E d w Full ms2 937.31@cid3

39a



rs\_b1\_061017 #2633 RT: 35.31 AV: 1 NL: 1.50E1  
F: ITMS - p ESI E d w Full ms2 937.31@cid3

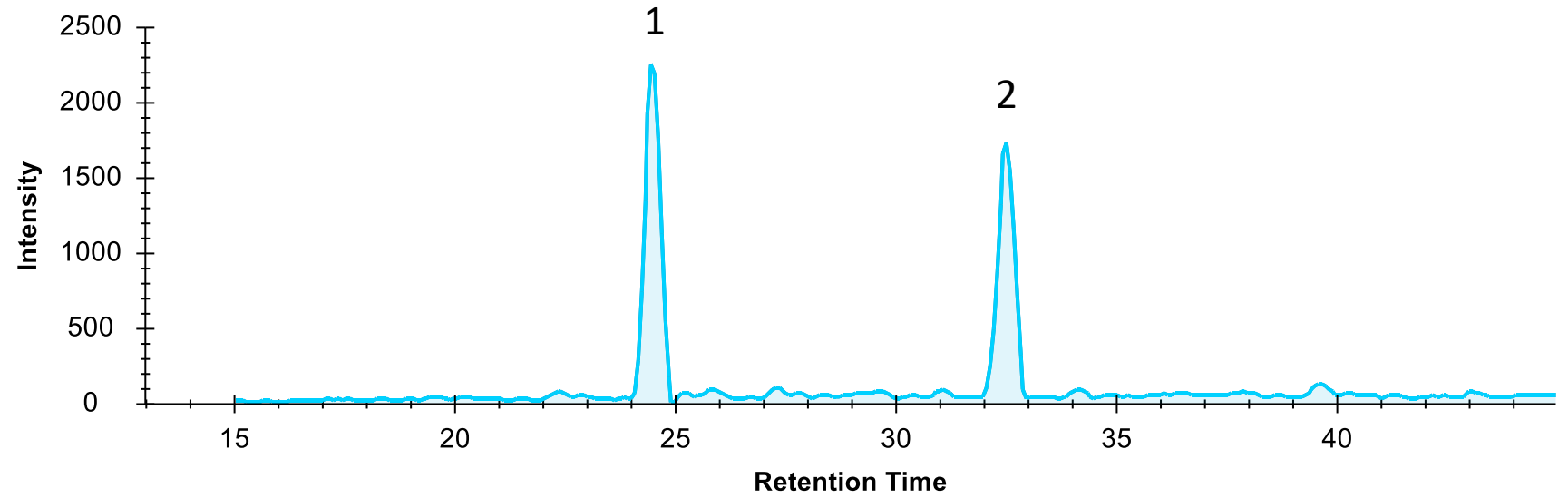
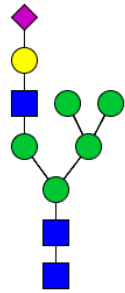
39b



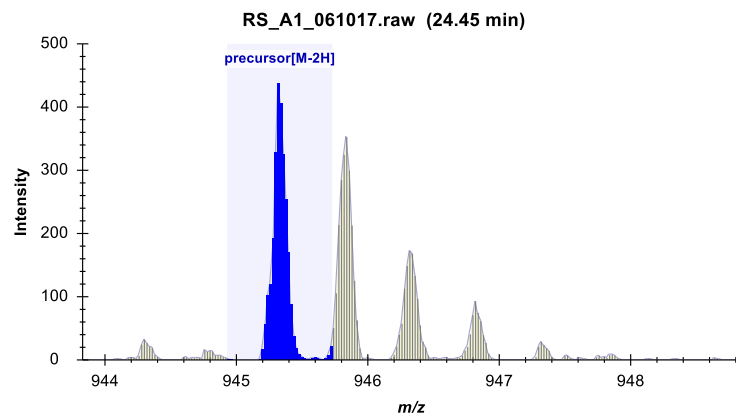
(Hex)3 (HexNAc)1 (NeuAc)1 + (Man)3(GlcNAc)2

Glytougan ID: G74784VI

[M-2H] 945.33

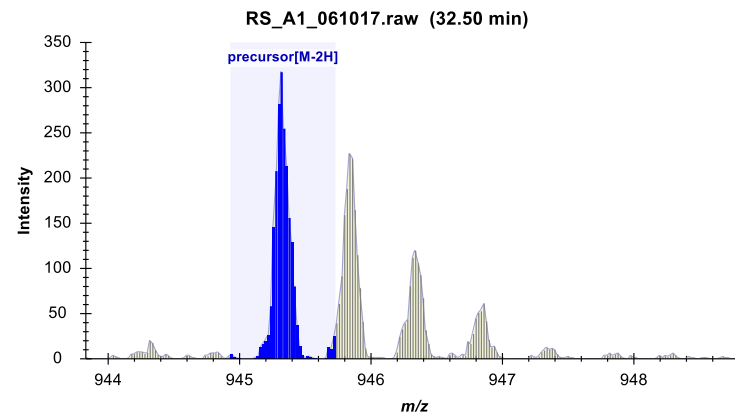


1



40a

2



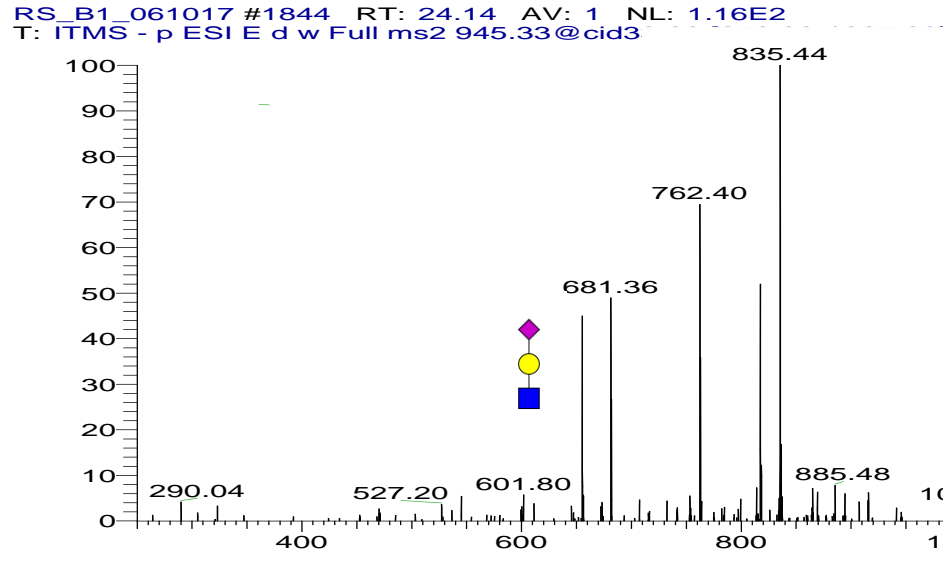
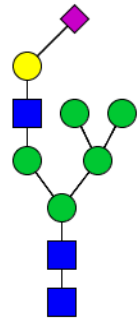
40b

GlytouCan ID: G74784VI

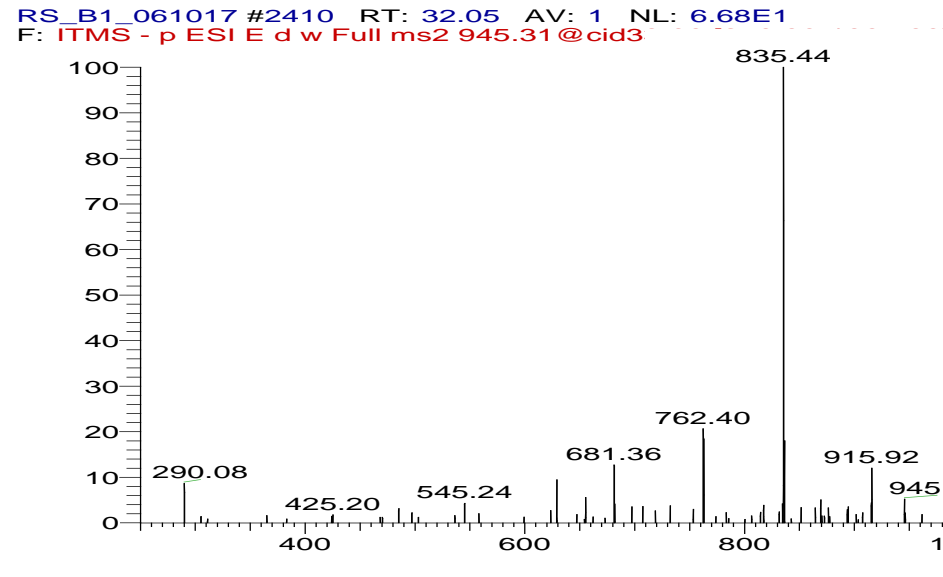
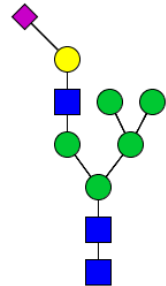
CID-MS/MS

( $m/z$  945.33  $^{2-}$ )

40a



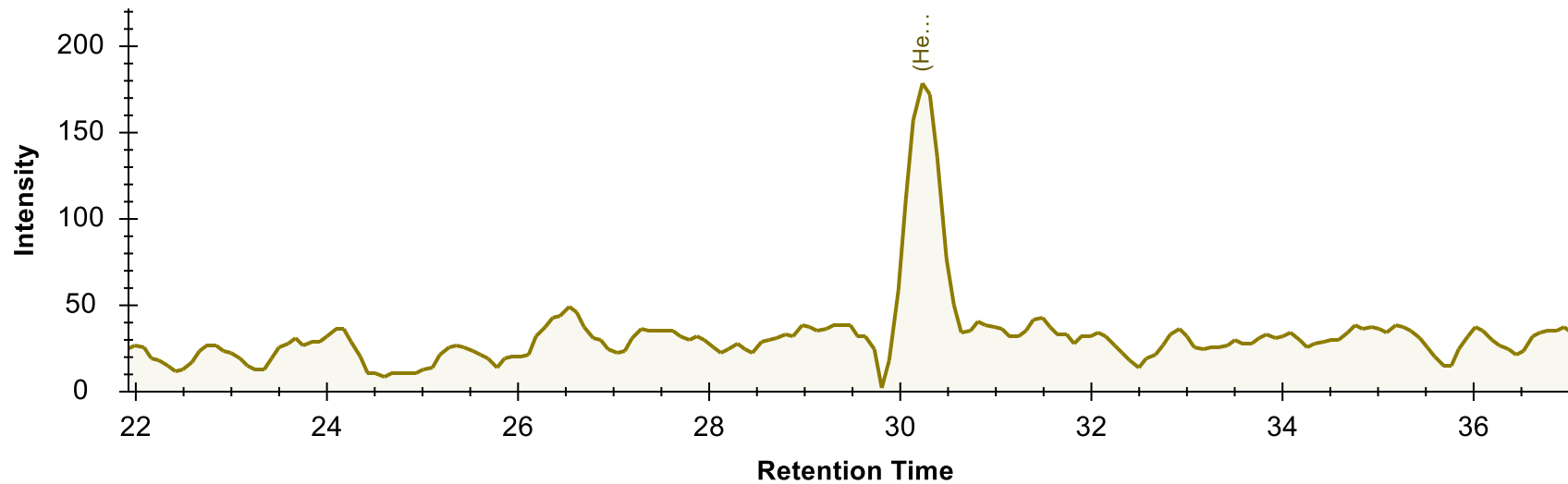
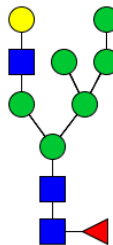
40b



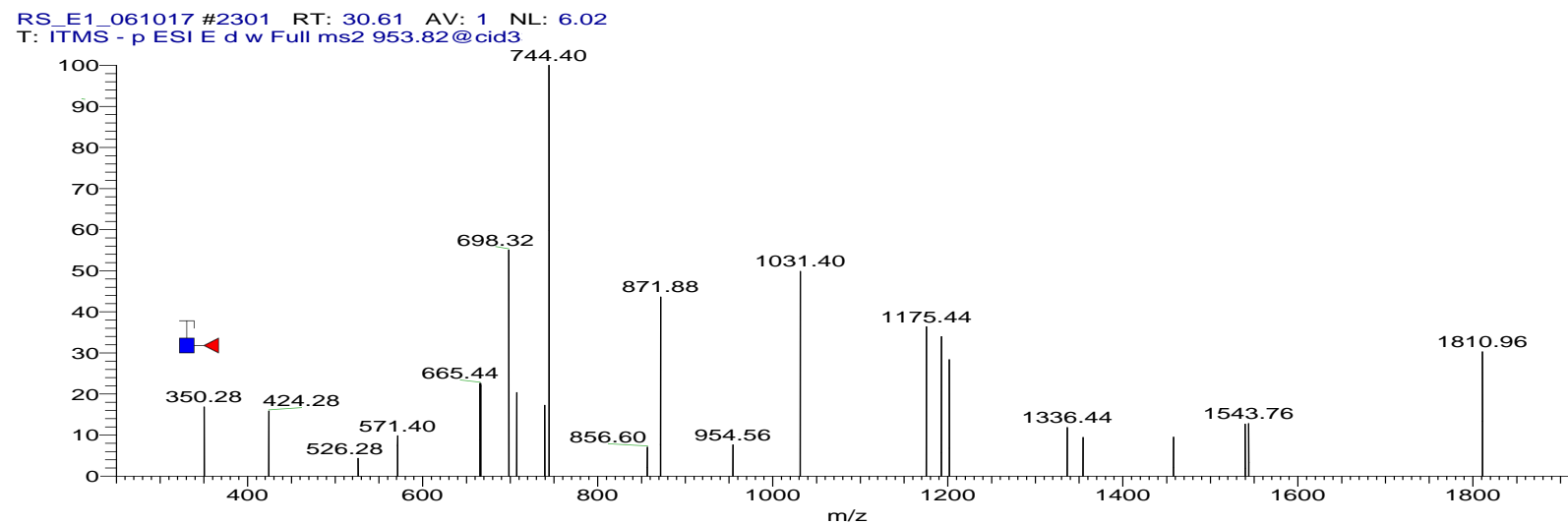
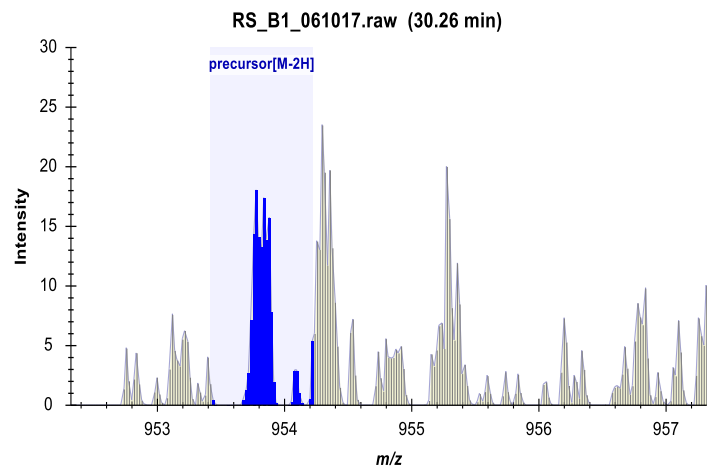
(Hex)<sub>4</sub> (HexNAc)<sub>1</sub> (Deoxyhexose)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

GlytouCan ID: G82052AF

[M-2H]<sup>-</sup> 953.82



CID-MS/MS ( $m/z$  953.82<sup>2-</sup>)

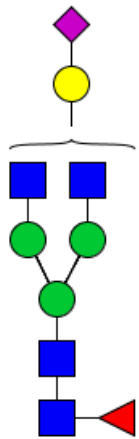
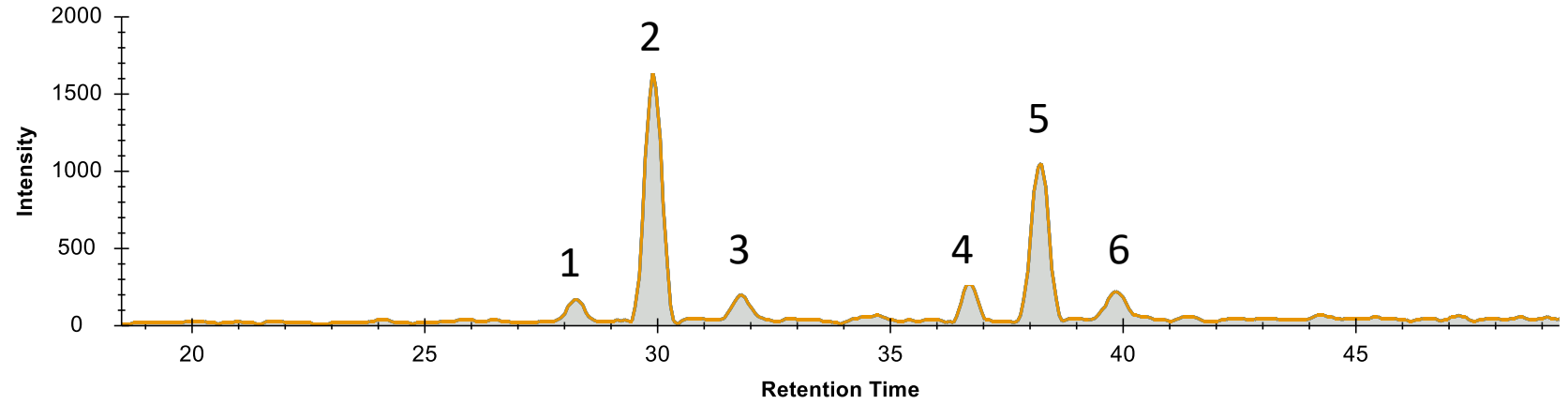


Glycan ID: 41

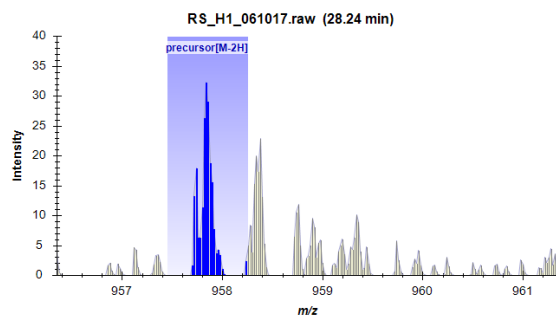
(Hex)1 (HexNAc)2 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G86681UT

[M-2H] 957.85

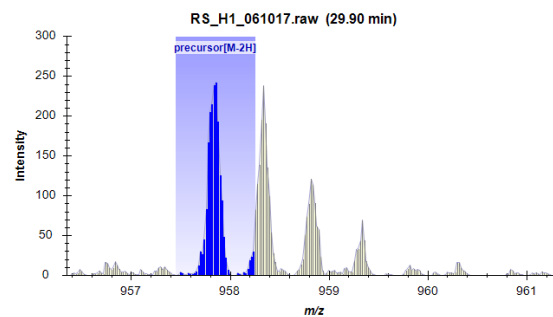


1



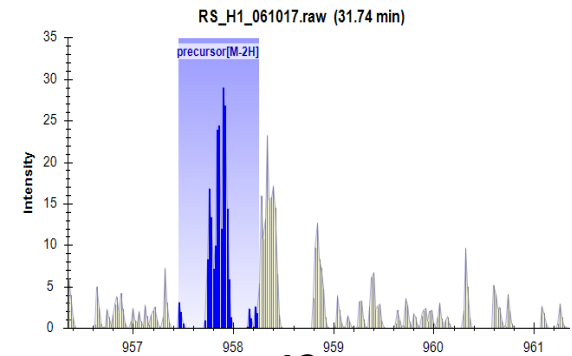
42a

2



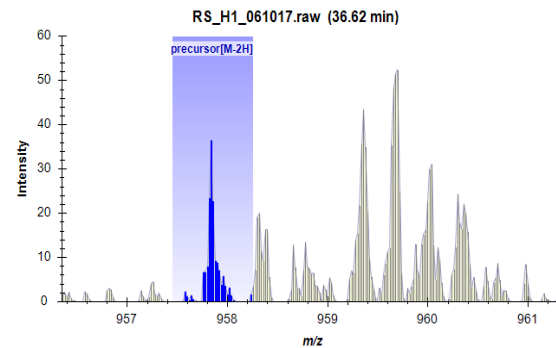
42b

3



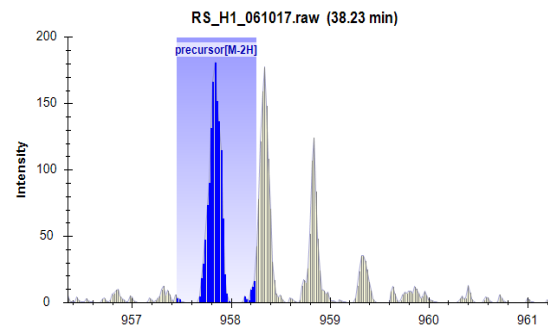
42c

4



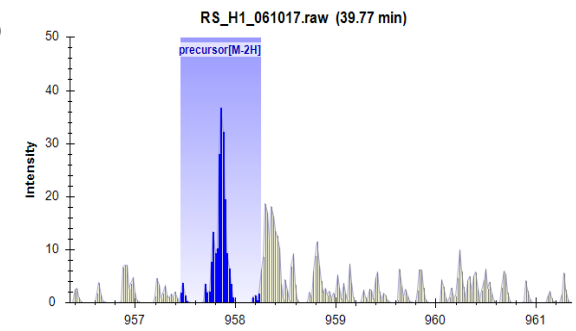
42d

5



42e

6



42f

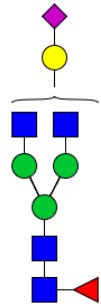
(Hex)1 (HexNAc)2 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

GlytouCan ID: G86681UT

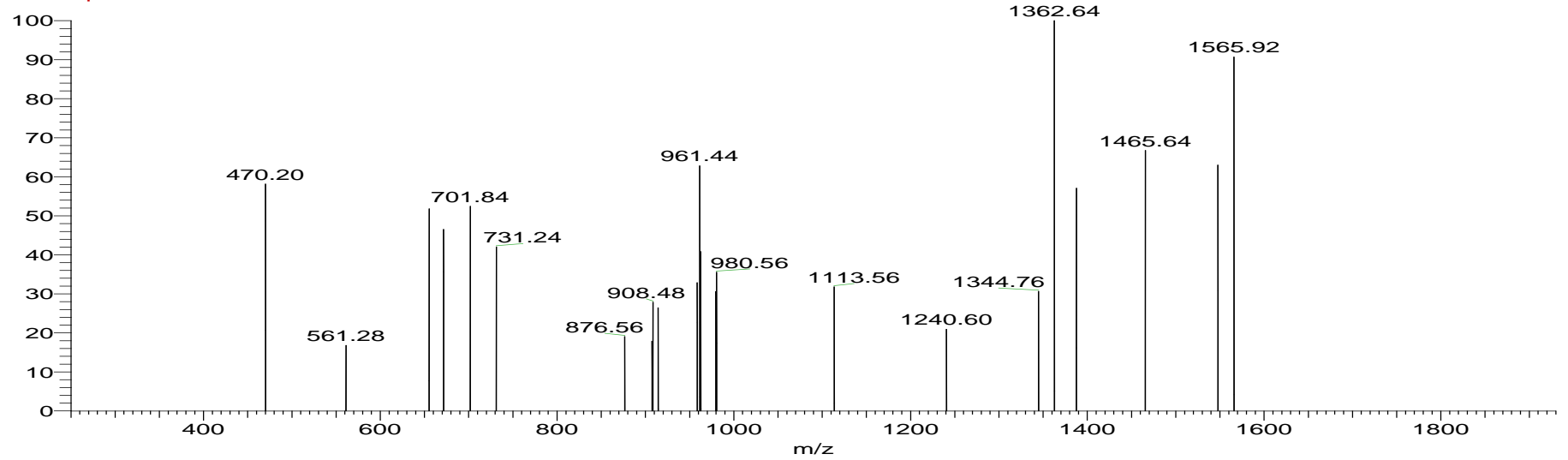
[M-2H]<sup>-</sup> 957.85

rs\_h2\_061017 #2160 RT: 28.69 AV: 1 NL: 3.26  
F: ITMS - p ESI E d w Full ms2 957.83@cid3

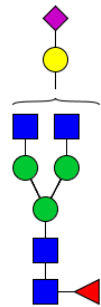
42a



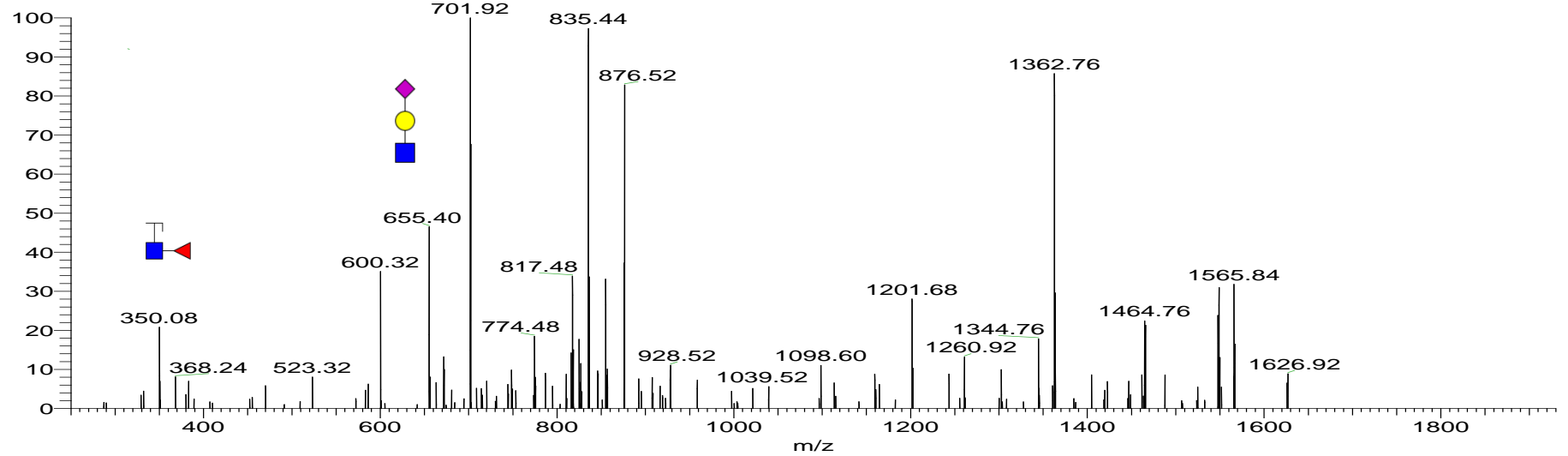
CID-MS/MS  
( $m/z$  957.85<sup>2-</sup>)



42b



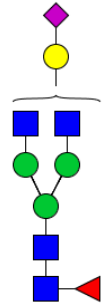
RS\_B1\_061017 #2264 RT: 29.95 AV: 1 NL: 3.65E1  
T: ITMS - p ESI E d w Full ms2 957.85@cid3



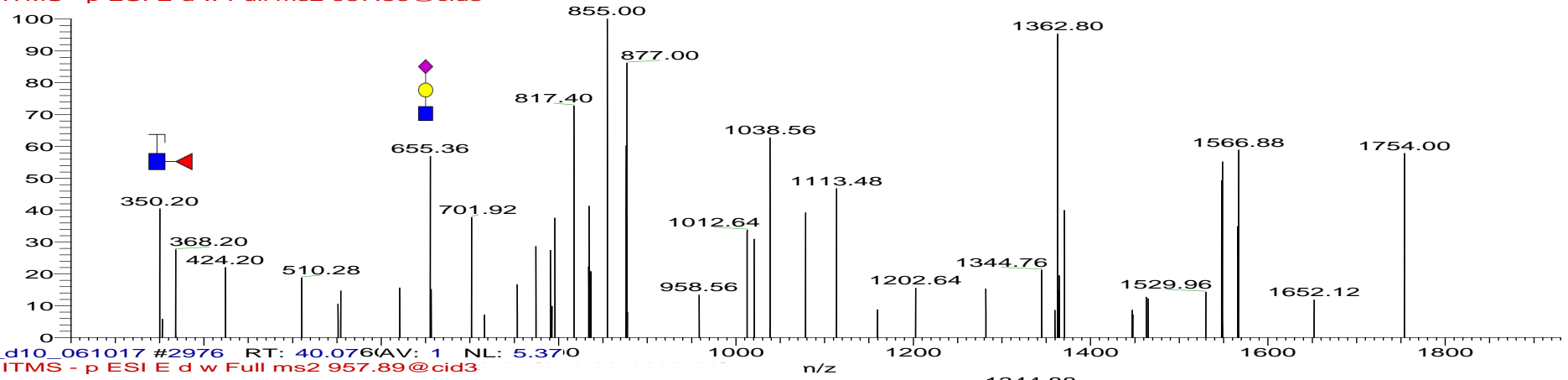


CID-MS/MS  
( $m/z$  957.85<sup>2-</sup>)

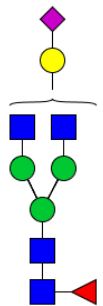
42c



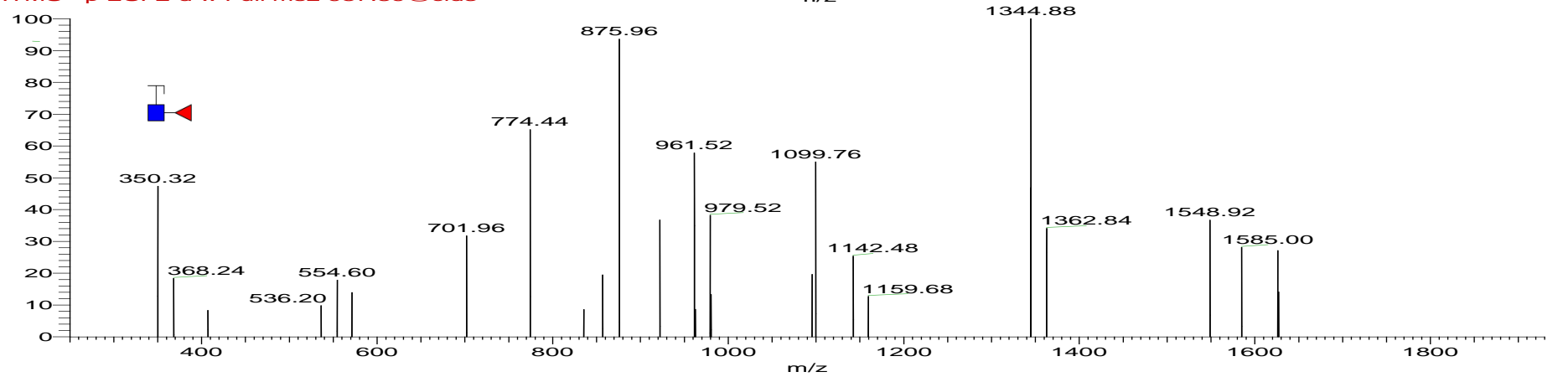
rs\_d3\_061017 #2519 RT: 33.23 AV: 1 NL: 6.21  
F: ITMS - p ESI E d w Full ms2 957.86@cid3



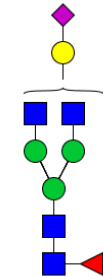
42d



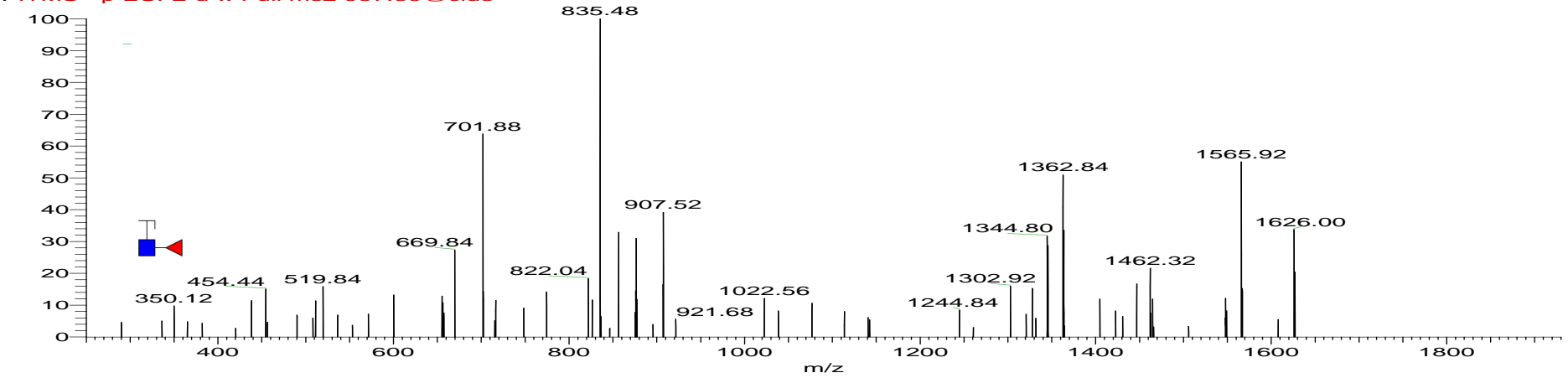
rs\_d10\_061017 #2976 RT: 40.076(AV: 1 NL: 5.3710  
F: ITMS - p ESI E d w Full ms2 957.89@cid3



42e



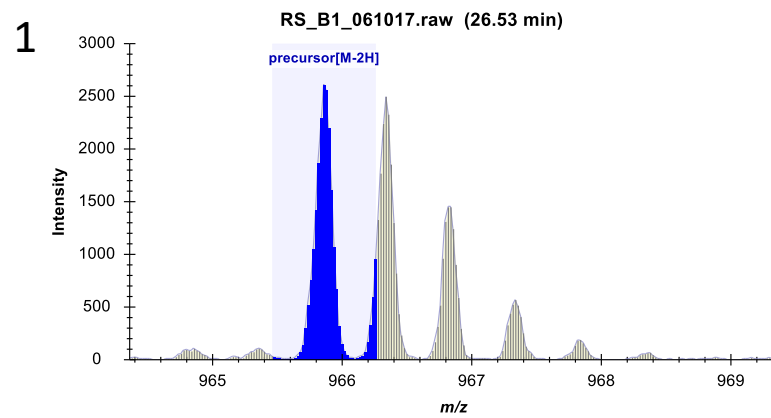
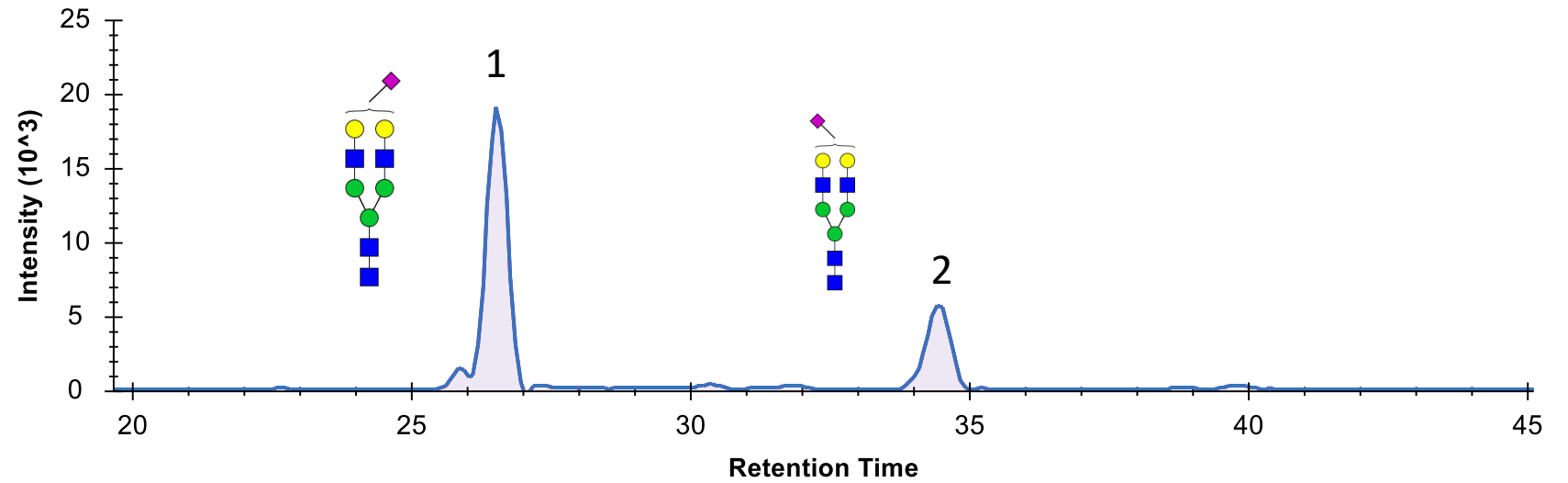
rs\_d10\_061017 #3083 RT: 41.54 AV: 1 NL: 1.37E1  
F: ITMS - p ESI E d w Full ms2 957.89@cid3



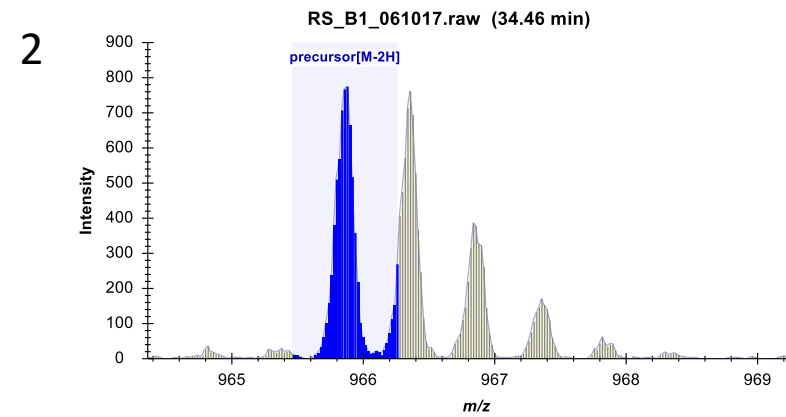
(Hex)2 (HexNAc)2 (NeuAc)1 + (Man)3(GlcNAc)2

Glytougan ID: G07990UY

[M-2H] 965.86



43a

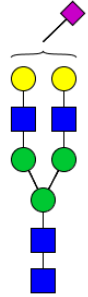


43b

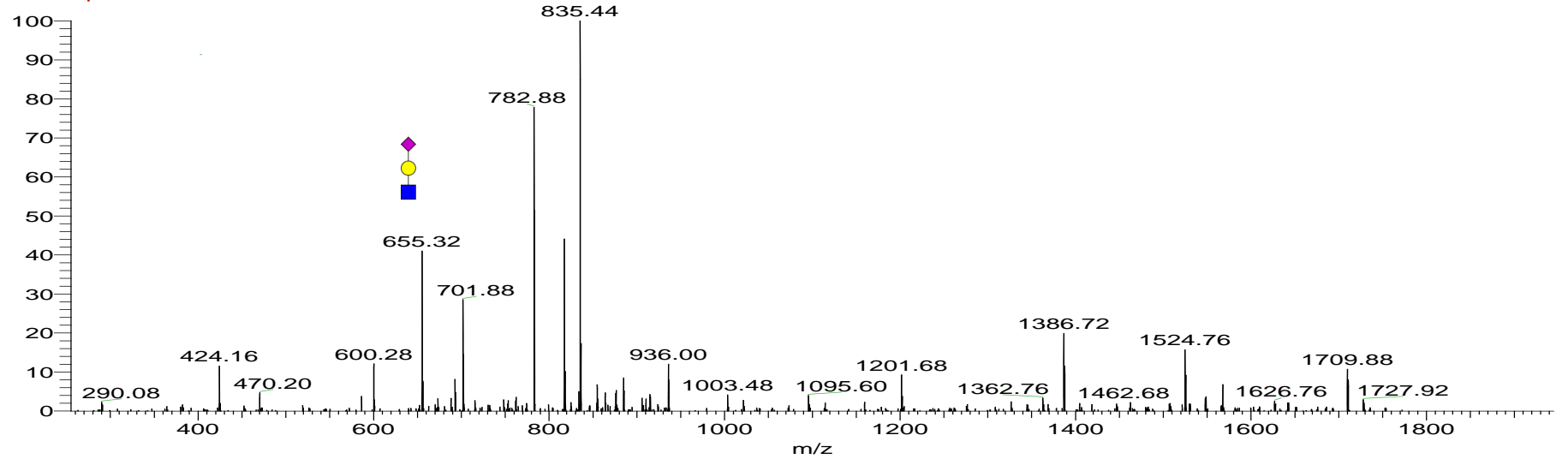
GlytouCan ID: G07990UY

CID-MS/MS  
( $m/z$  965.83<sup>2-</sup>)

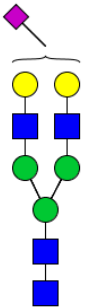
43a



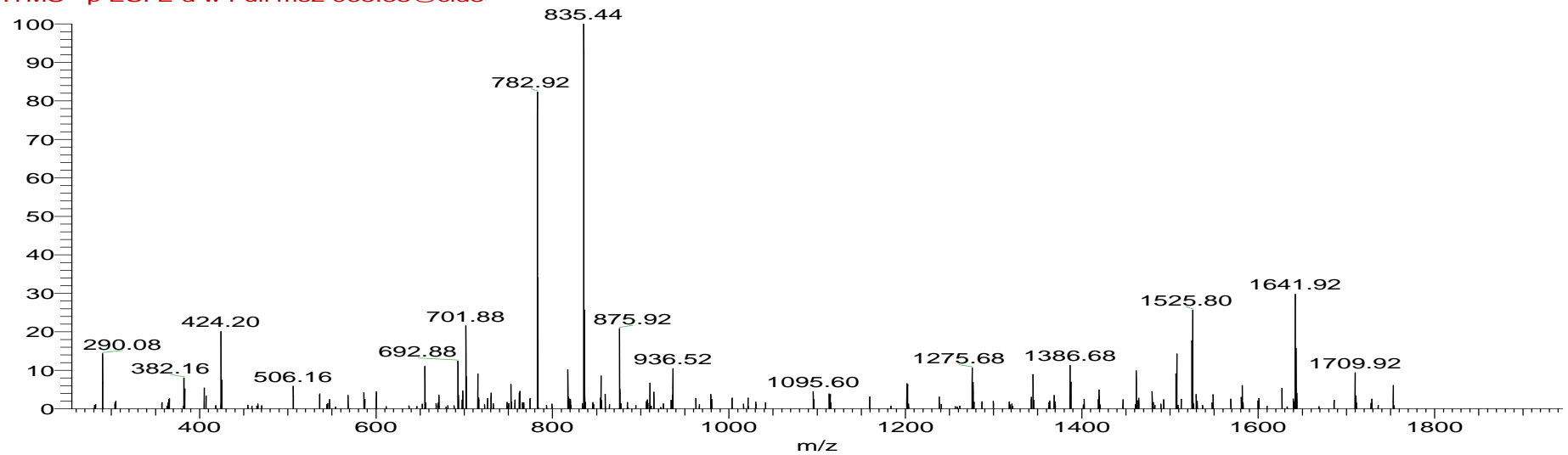
RS\_B1\_061017 #2024 RT: 26.58 AV: 1 NL: 3.37E2  
F: ITMS - p ESI E d w Full ms2 965.83@cid3



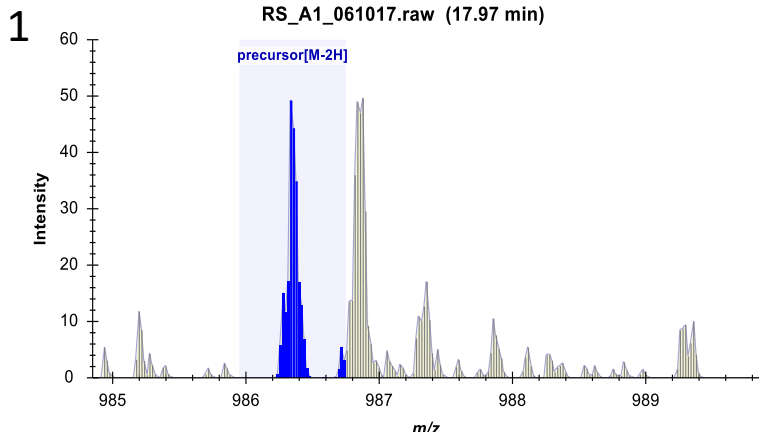
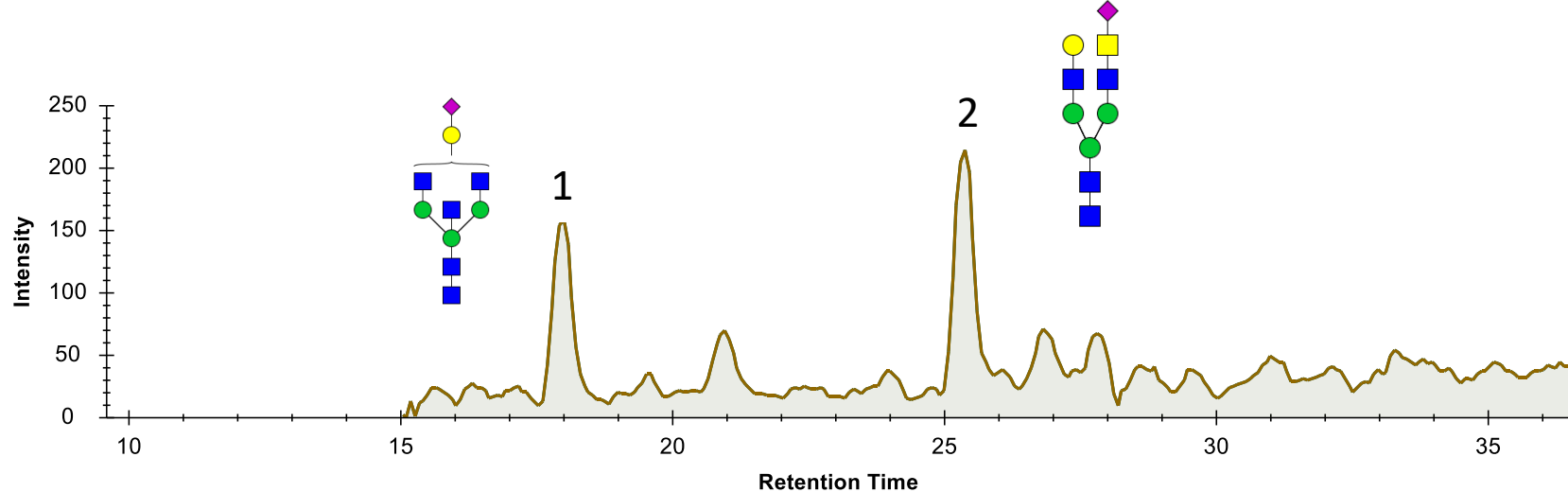
43b



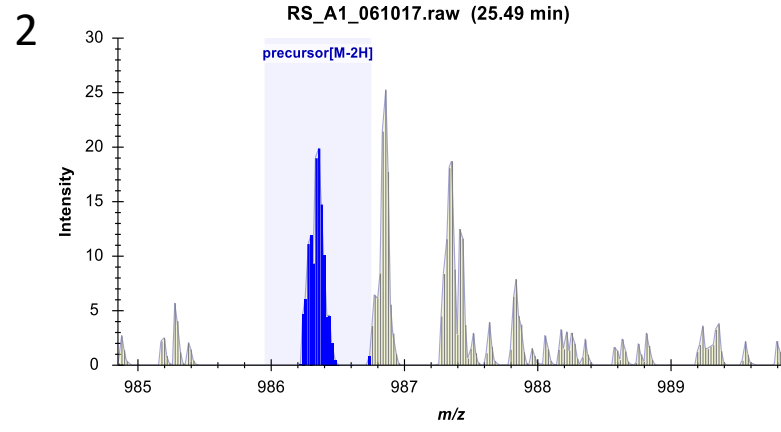
RS\_B1\_061017 #2570 RT: 34.42 AV: 1 NL: 8.03E1  
F: ITMS - p ESI E d w Full ms2 965.83@cid3



(Hex)1 (HexNAc)3 (NeuAc)1 + (Man)3(GlcNAc)2  
GlytouCan ID: G17856XT  
[M-2H] 986.35



44a



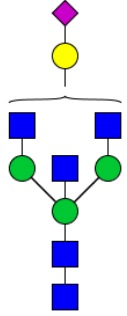
44b

GlytouCan ID: G17856XT

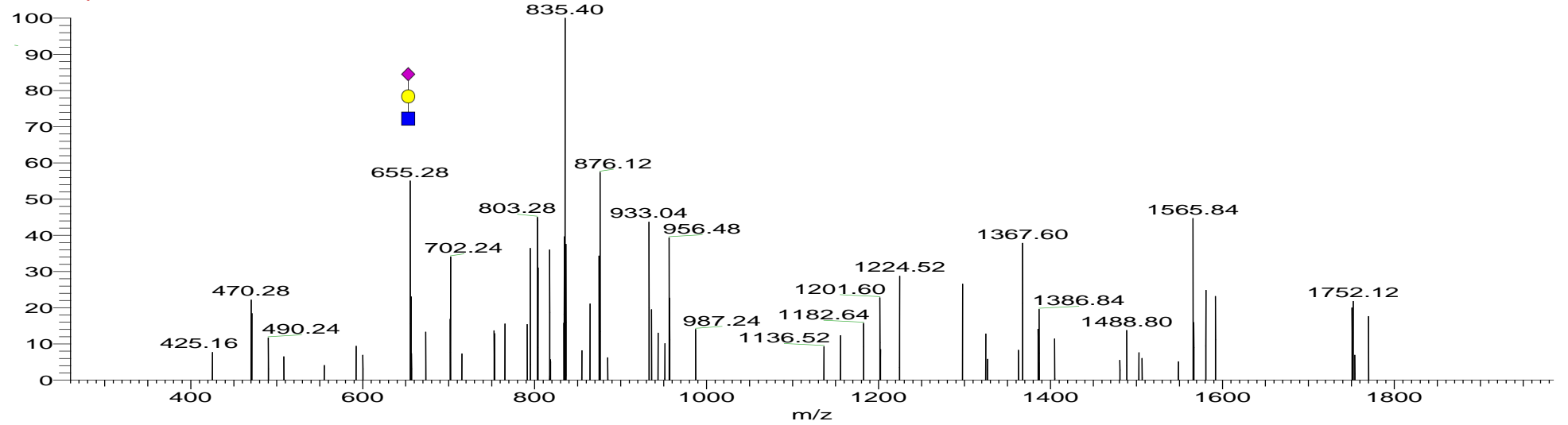
CID-MS/MS

( $m/z$  986.34<sup>2-</sup>)

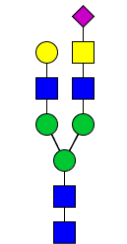
44a



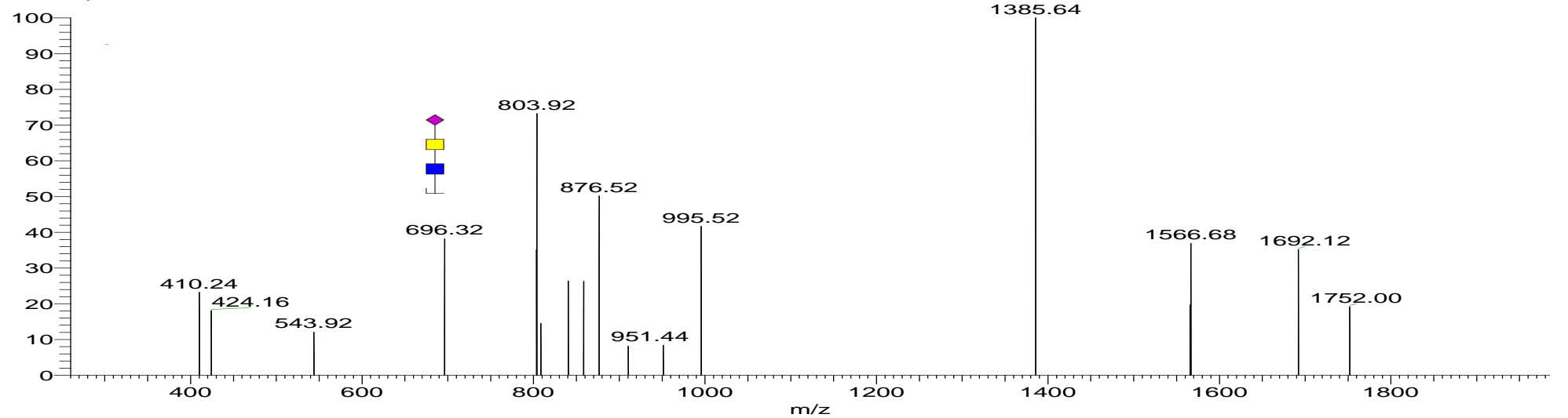
RS\_C1\_061017 #1360 RT: 17.66 AV: 1 NL: 1.02E1  
F: ITMS - p ESI E d w Full ms2 986.34@cid3



44b



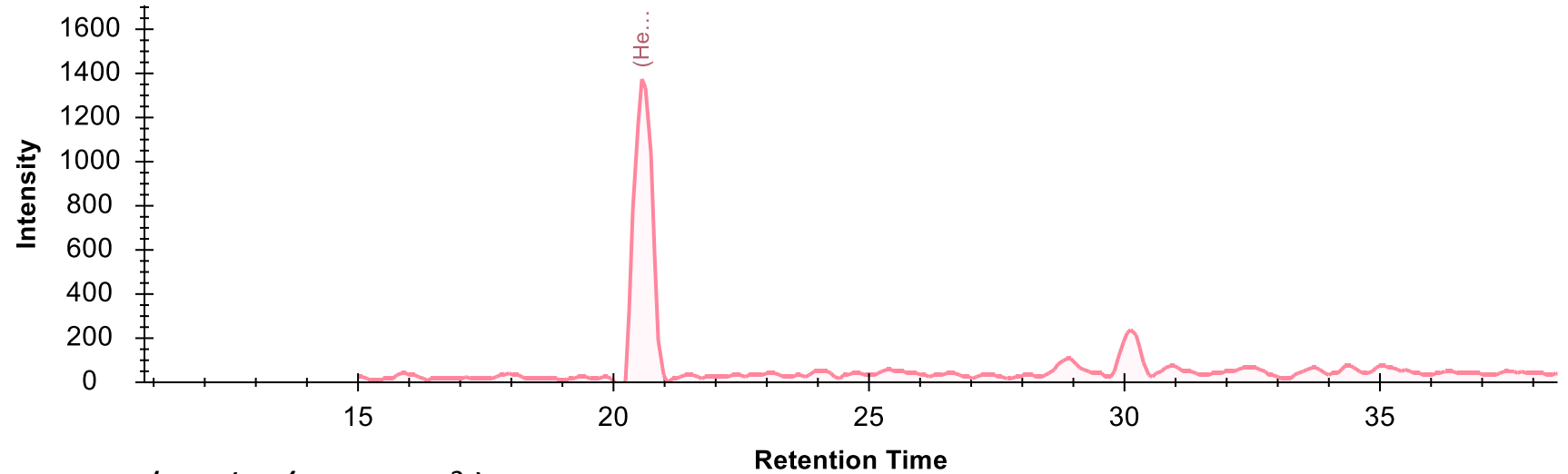
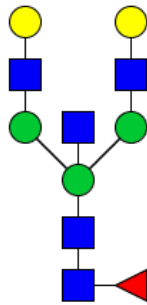
RS\_C1\_061017 #1901 RT: 24.96 AV: 1 NL: 4.02  
F: ITMS - p ESI E d w Full ms2 986.34@cid3



(Hex)2 (HexNAc)3 (Deoxyhexose)1 + (Man)3(GlcNAc)2

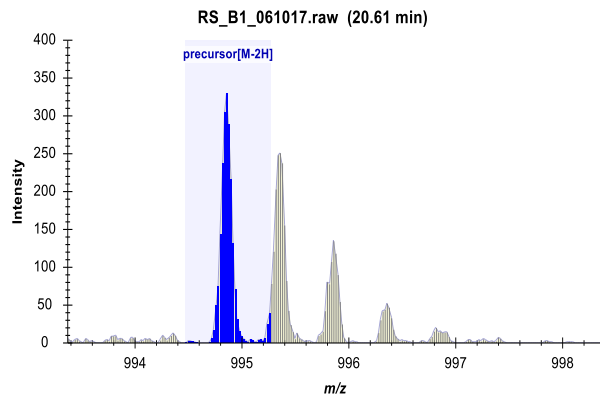
Glytoucan ID: G73161WI

[M-2H] 994.88

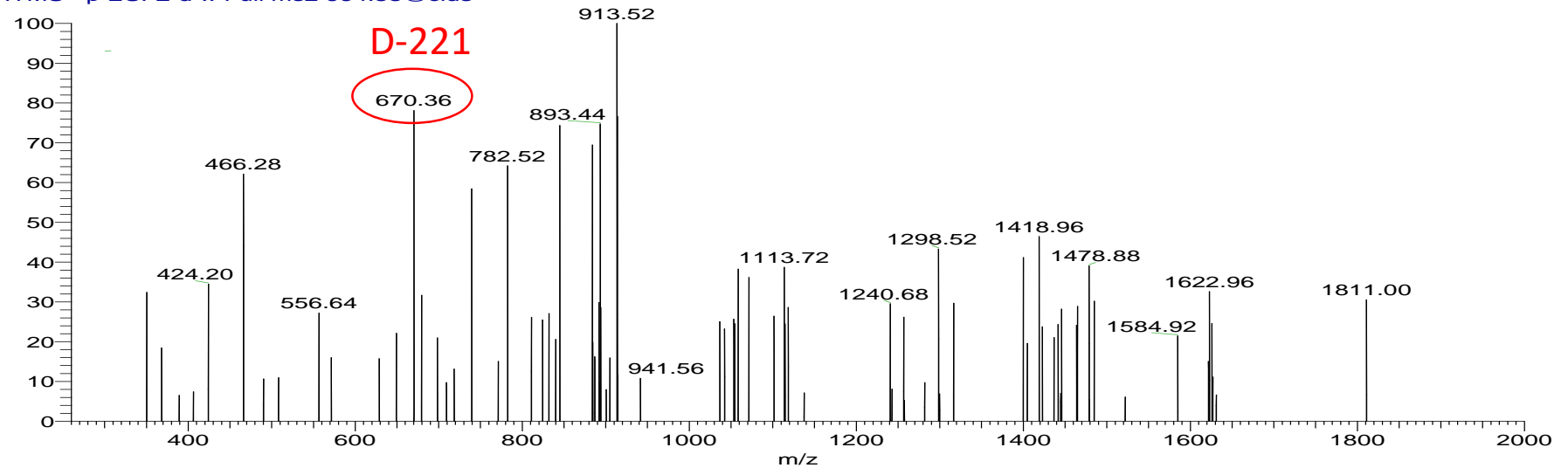


CID-MS/MS ( $m/z$  994.88  $^{2-}$ )

RS\_E1\_061017 #1591 RT: 20.81 AV: 1 NL: 6.08  
T: ITMS - p ESI E d w Full ms2 994.88@cid3



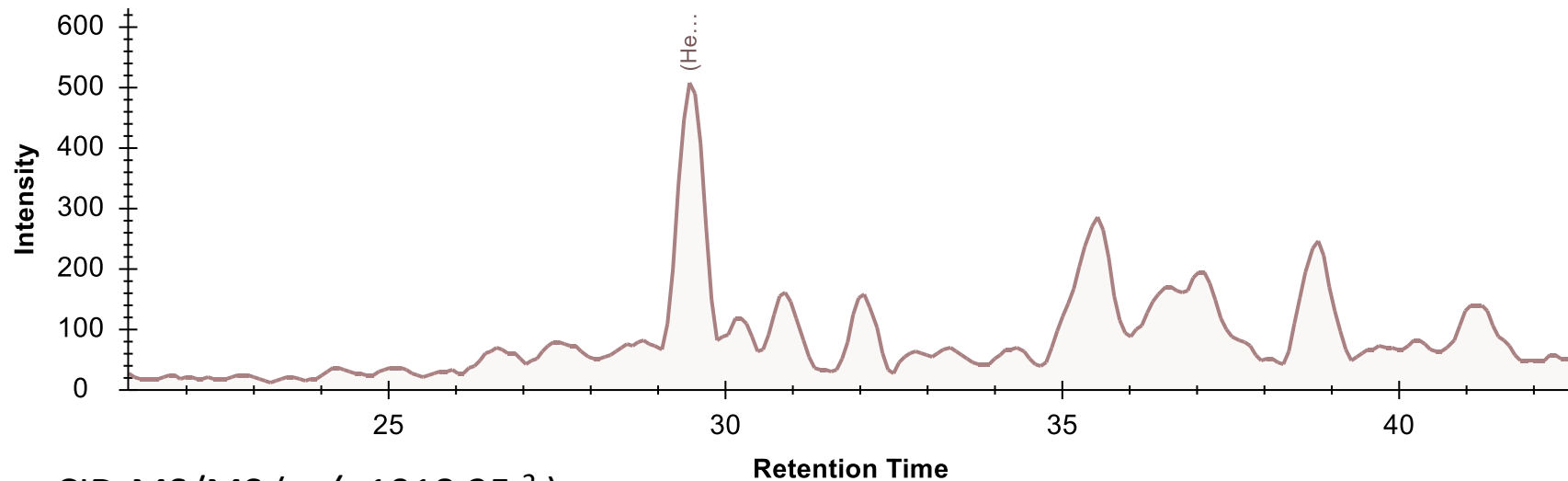
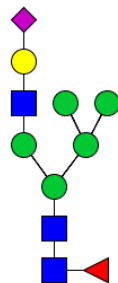
Glycan ID: 45



(Hex)3 (HexNAc)1 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

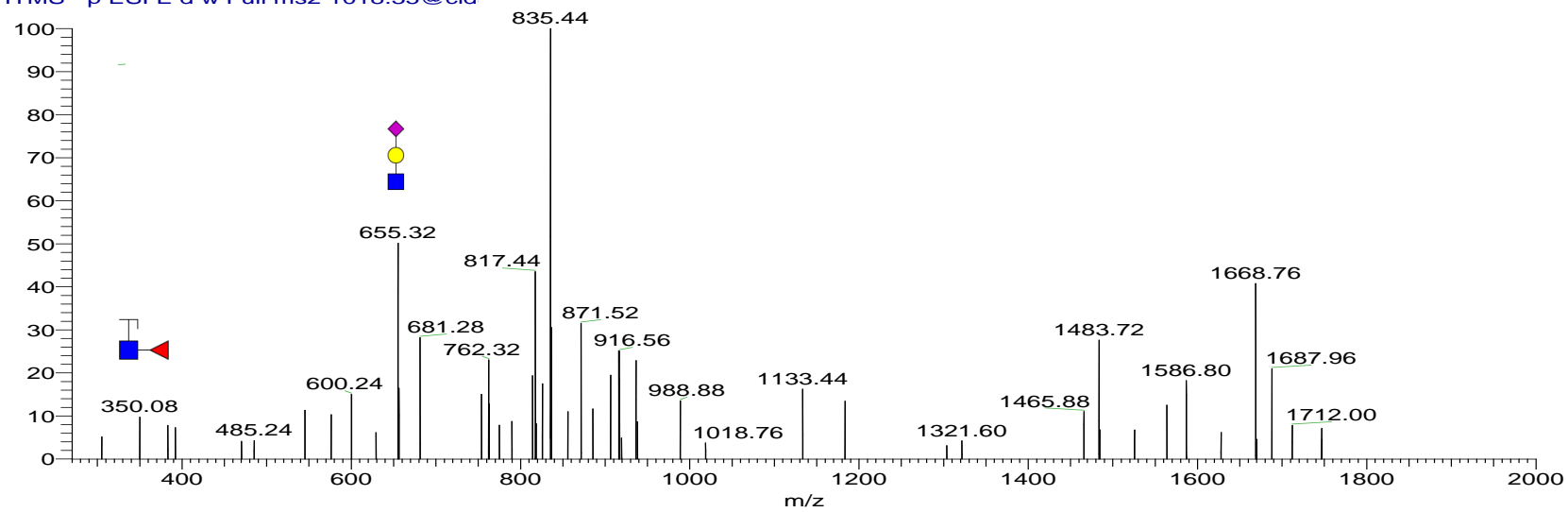
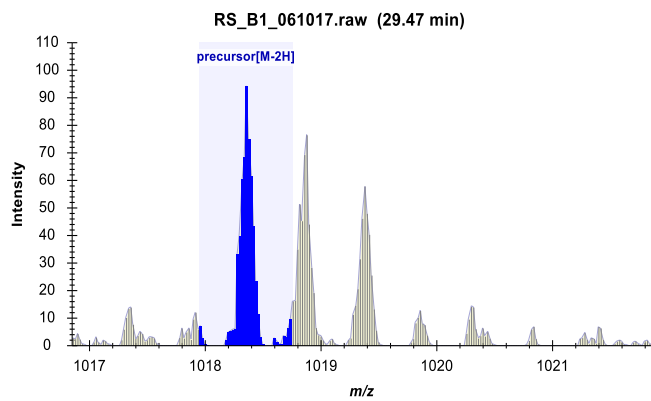
GlytouCan ID: G46683SB

[M-2H] 1018.35



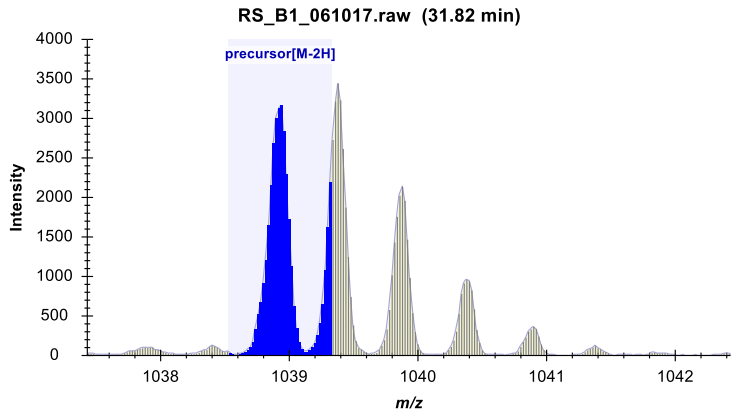
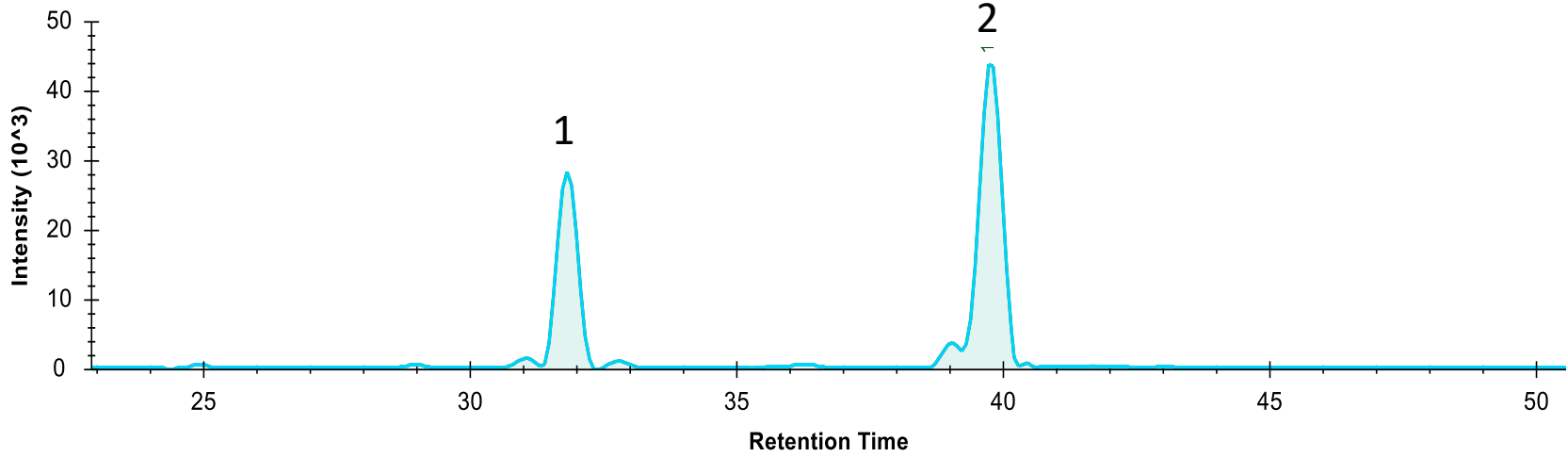
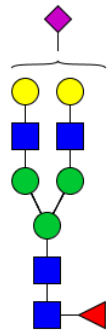
CID-MS/MS ( $m/z$  1018.35  $^{2-}$ )

RS\_D1\_061017 #2260 RT: 29.58 AV: 1 NL: 1.39E1  
T: ITMS - p ESI E d w Full ms2 1018.35@cid

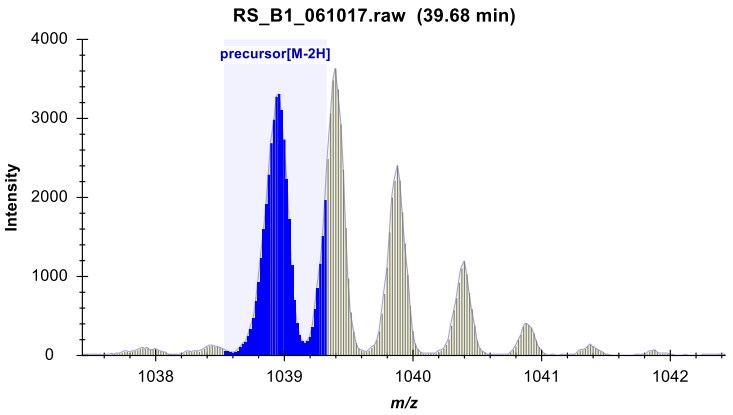


Glycan ID: 46

(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2  
GlytouCan ID: G02646YL



47a



47b

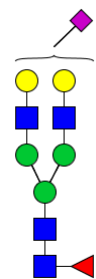


GlytouCan ID: G02646YL

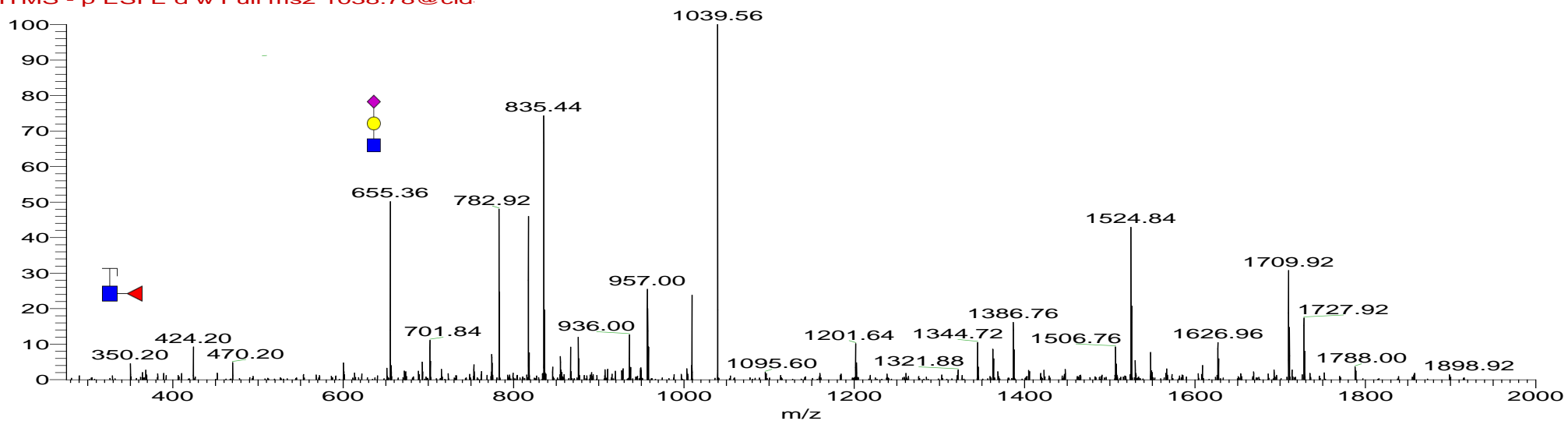
CID-MS/MS

( $m/z$  1038.78<sup>2-</sup>)

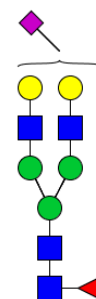
47a



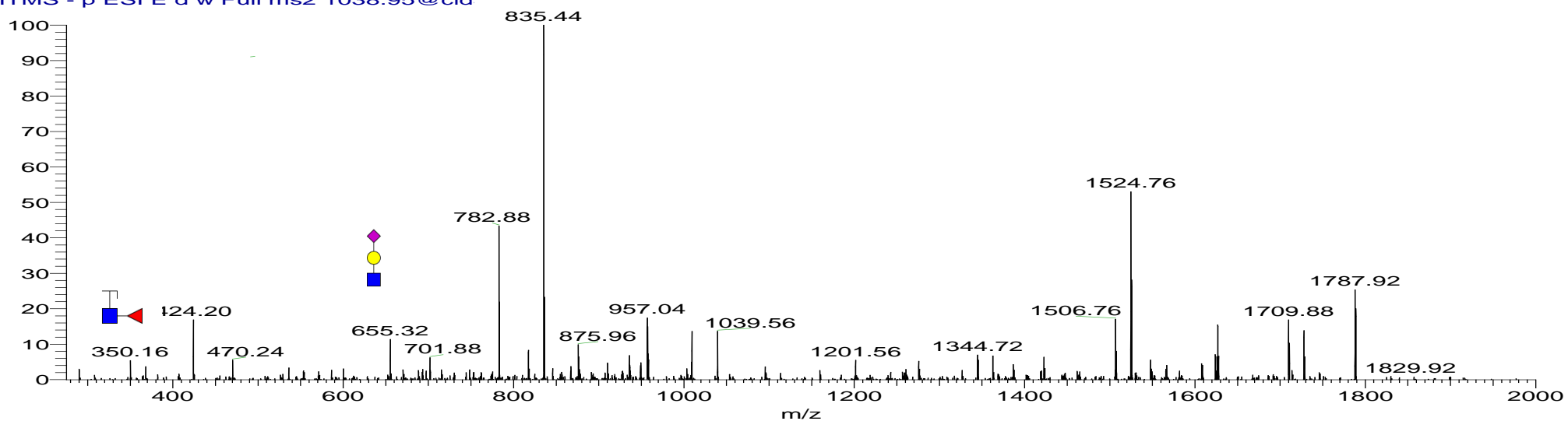
rs\_b1\_061017 #2397 RT: 31.87 AV: 1 NL: 2.76E2  
F: ITMS - p ESI E d w Full ms2 1038.78@cid



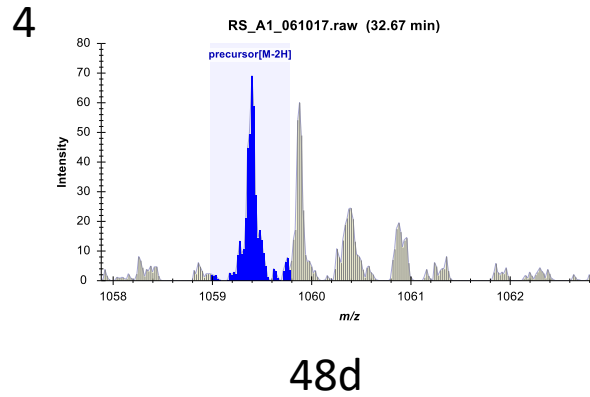
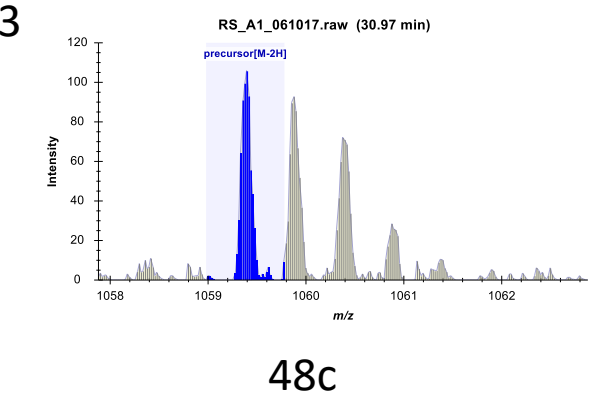
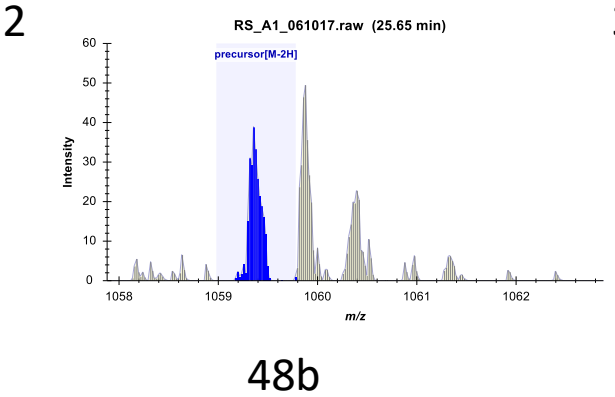
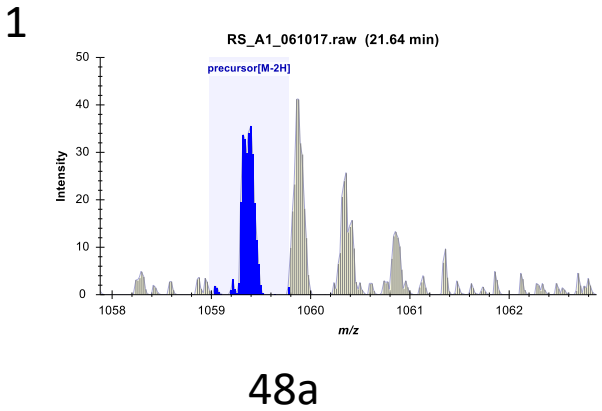
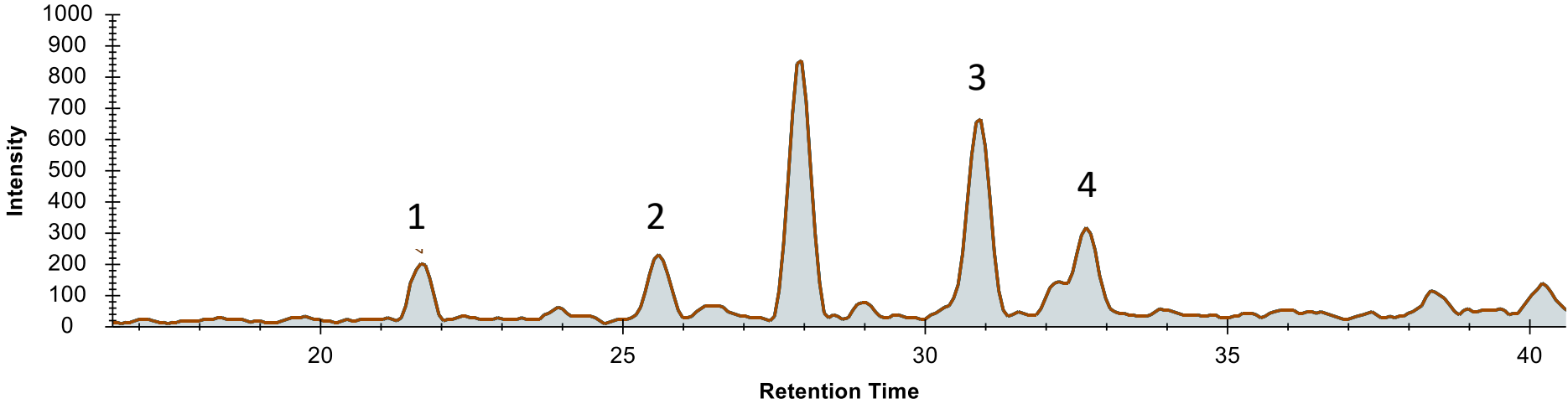
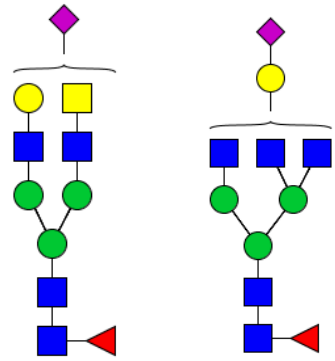
47b



RS\_B1\_061017 #2948 RT: 39.73 AV: 1 NL: 4.20E2  
T: ITMS - p ESI E d w Full ms2 1038.95@cid

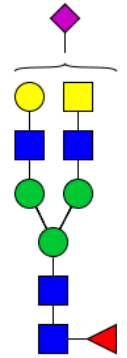


(Hex)1 (HexNAc)3 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2  
GlytouCan ID: G03380EA, G46208AF  
[M-2H]<sup>-</sup> 1059.38



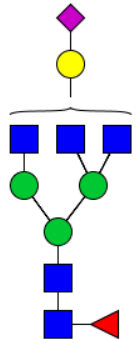
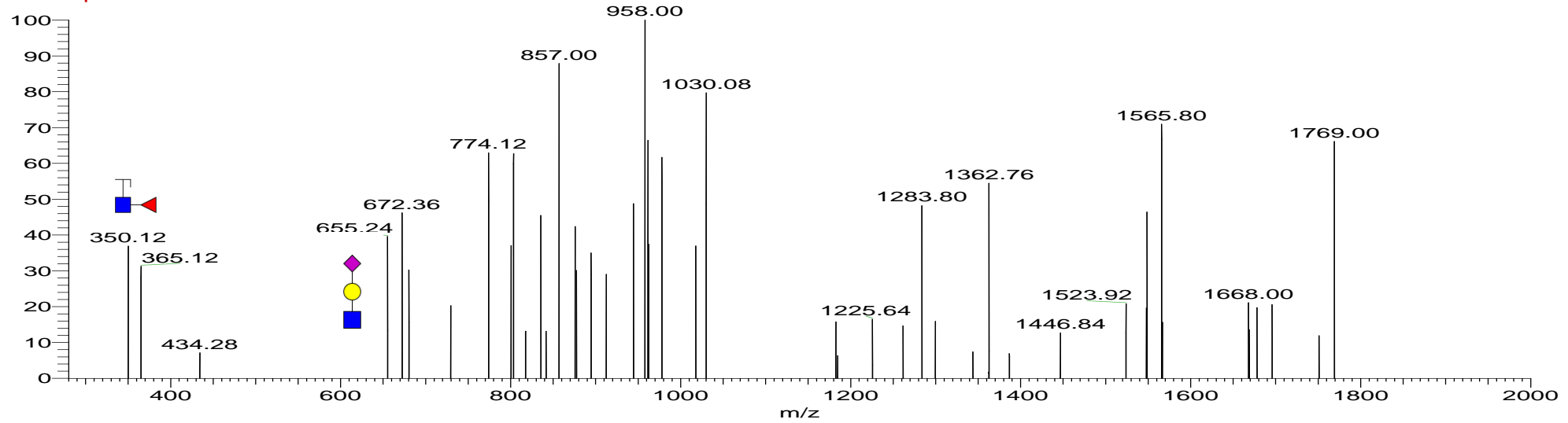
GlytouCan ID: G03380EA, G46208AF

CID-MS/MS  
( $m/z$  1059.40<sup>2-</sup>)



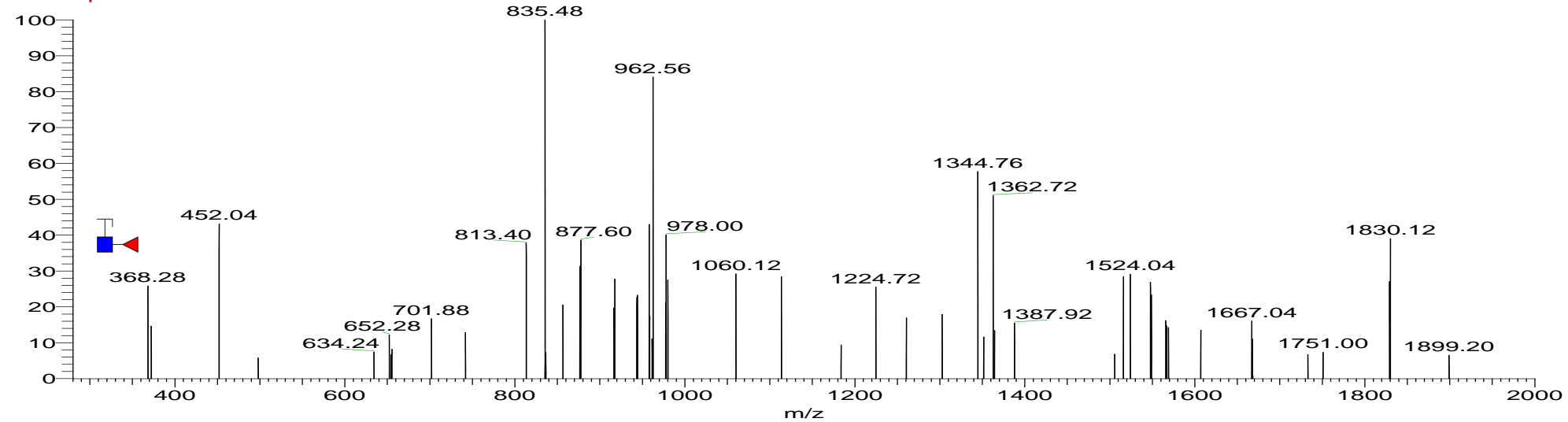
48a

RS\_B4\_061017 #1794 RT: 23.60 AV: 1 NL: 5.14  
F: ITMS - p ESI E d w Full ms2 1059.40@cid



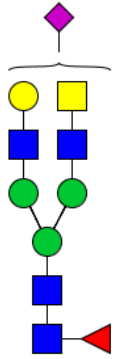
48b

RS\_B4\_061017 #2118 RT: 28.02 AV: 1 NL: 7.45  
F: ITMS - p ESI E d w Full ms2 1059.40@cid



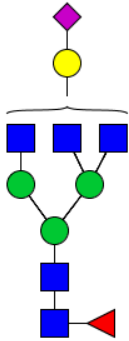
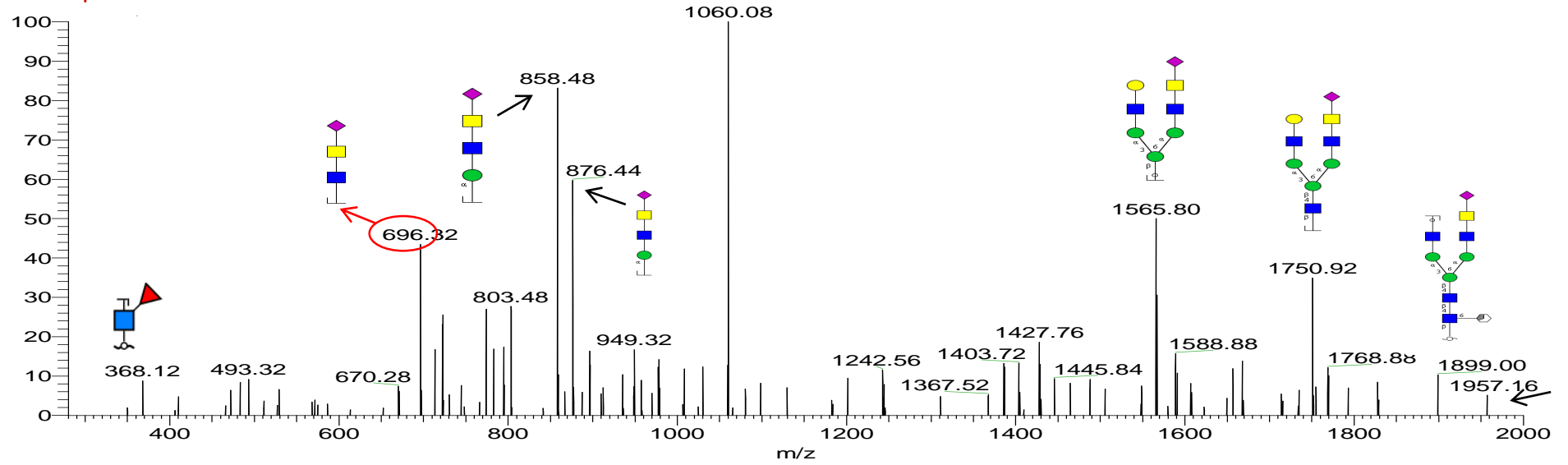
GlytouCan ID: G03380EA, G46208AF

CID-MS/MS  
( $m/z$  1059.40  $^{2-}$ )



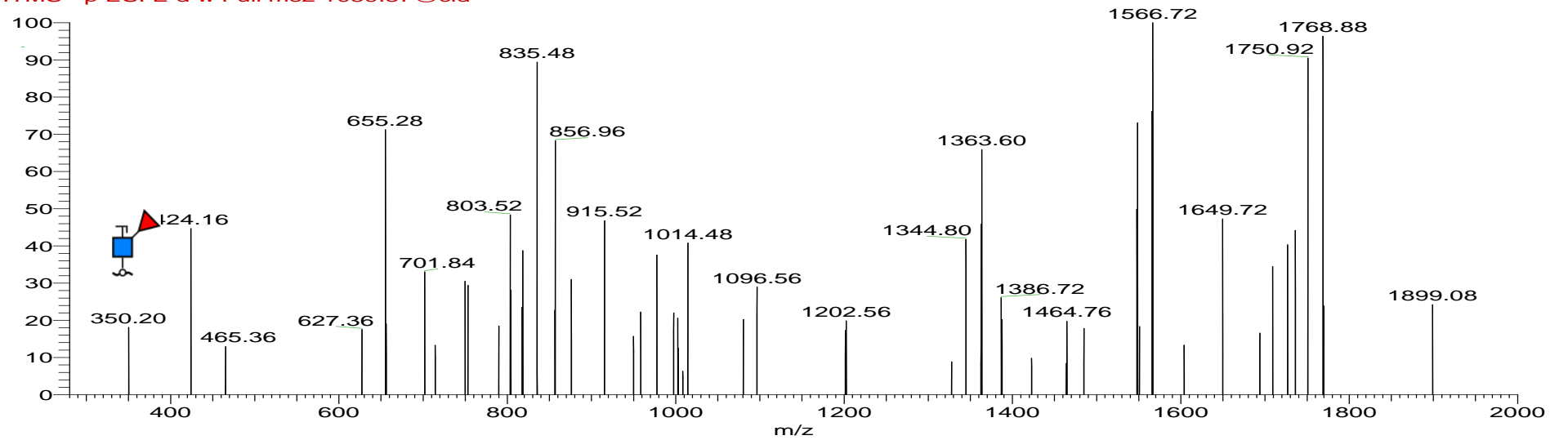
48c

RS\_B1\_061017 #2308 RT: 30.59 AV: 1 NL: 2.34E1  
F: ITMS - p ESI E d w Full ms2 1059.37@cid:



48d

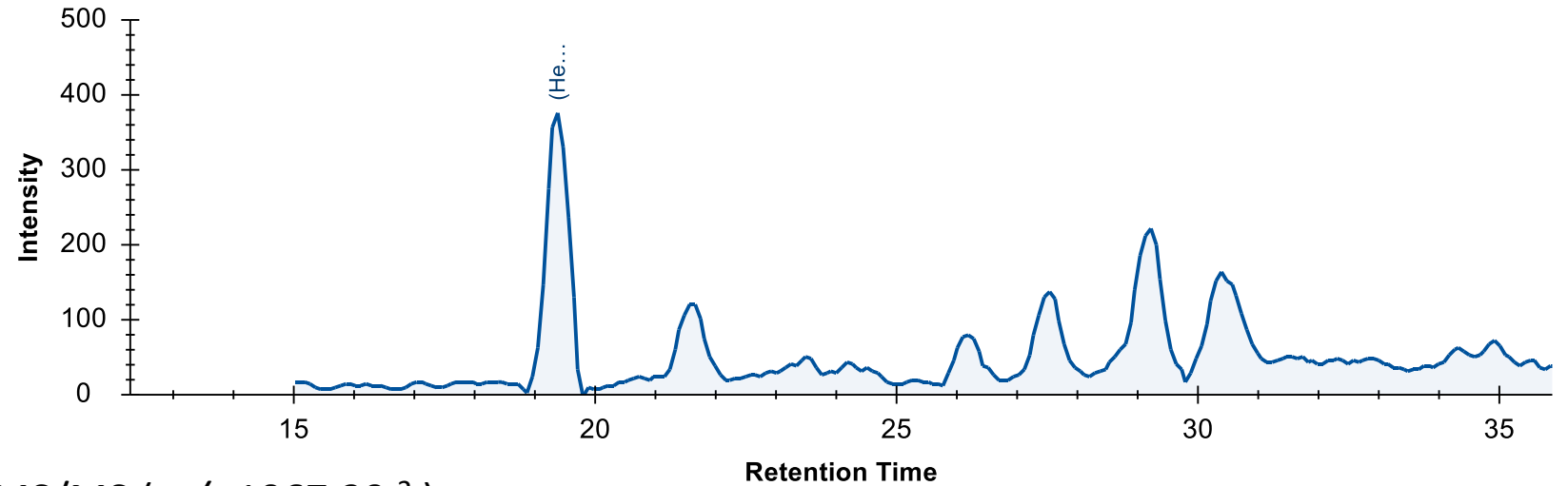
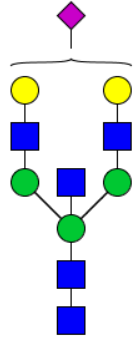
rs\_b1\_061017 #2436 RT: 32.42 AV: 1 NL: 4.56  
F: ITMS - p ESI E d w Full ms2 1059.37@cid:



(Hex)2 (HexNAc)3 (NeuAc)1 + (Man)3(GlcNAc)2

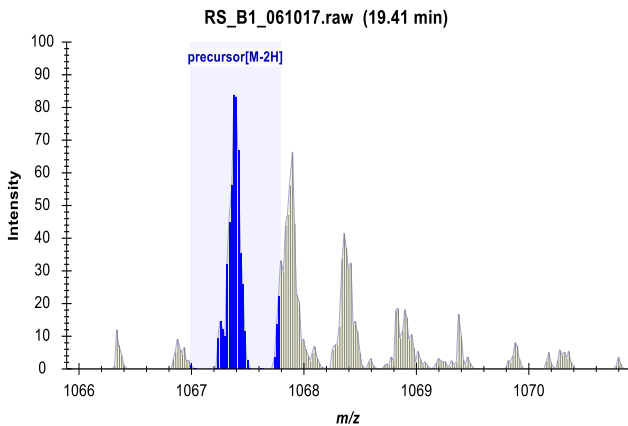
GlytouCan ID: G53989JC

[M-2H] 1067.39

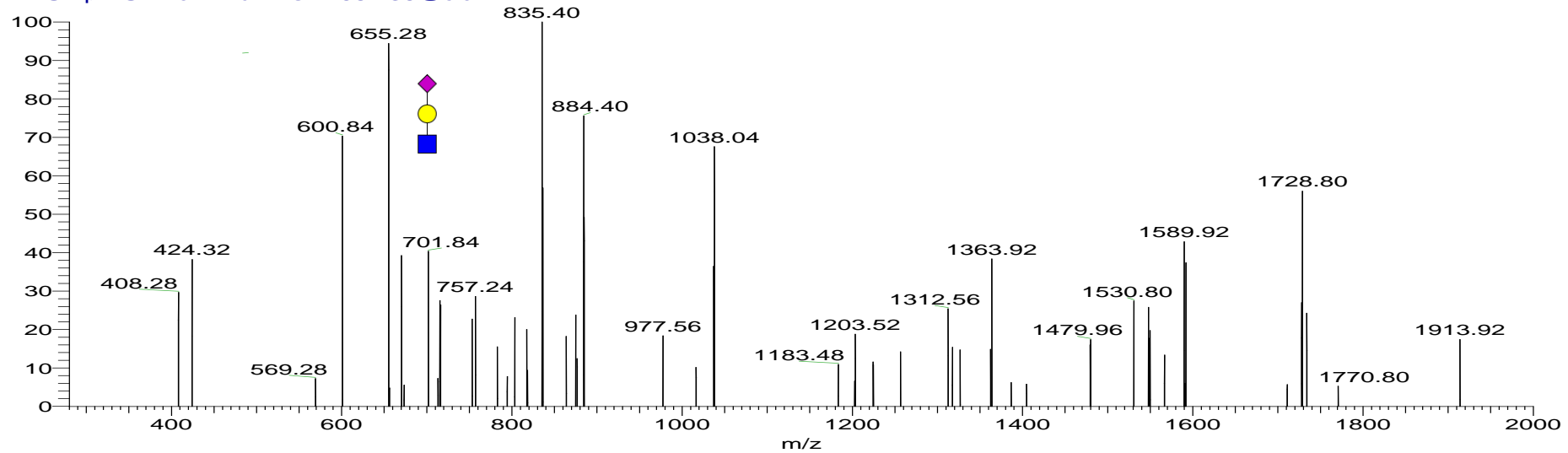


CID-MS/MS ( $m/z$  1067.39  $^{2-}$ )

RS\_C1\_061017 #1481 RT: 19.34 AV: 1 NL: 6.84  
T: ITMS - p ESI E d w Full ms2 1067.39@cid



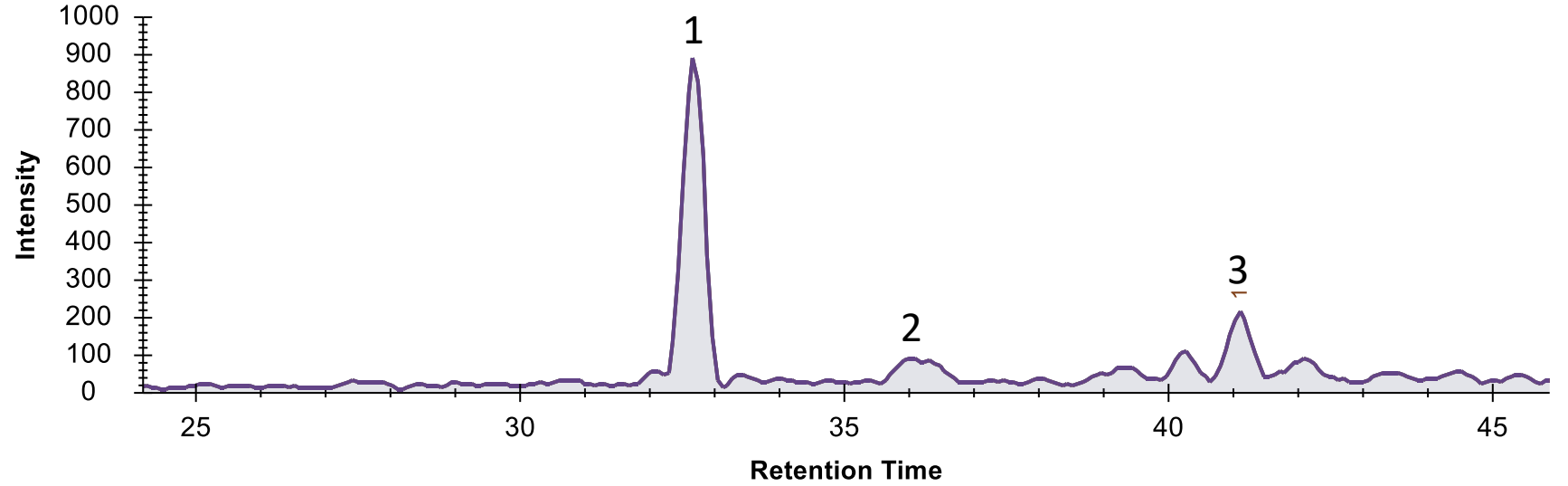
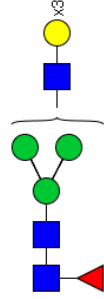
Glycan ID: 49



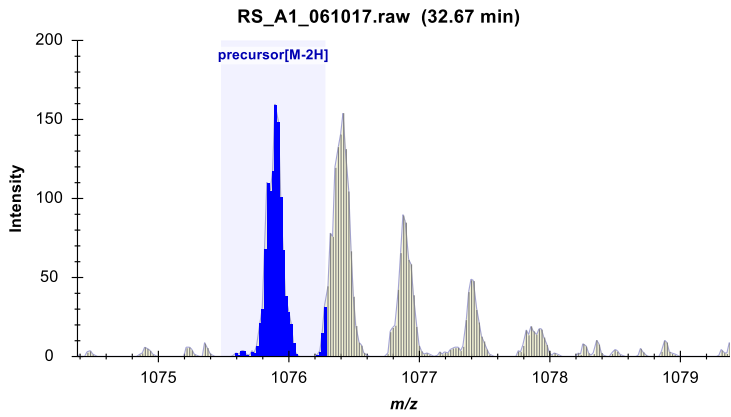
(Hex)3 (HexNAc)3 (Deoxyhexose)1 + (Man)3(GlcNAc)2

GlytouCan ID: G42397NB

[M-2H]<sup>-</sup> 1075.88

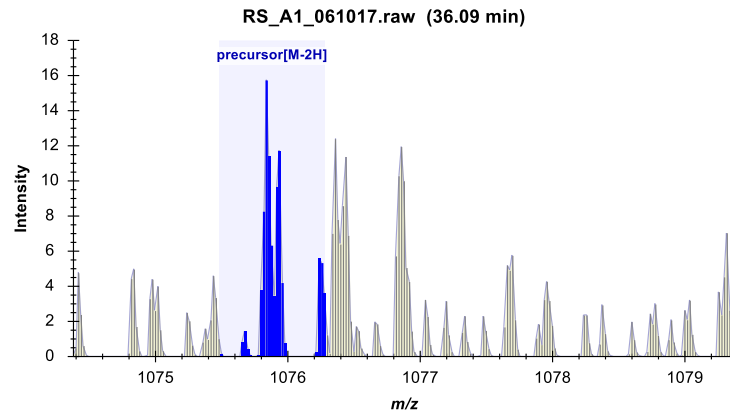


1



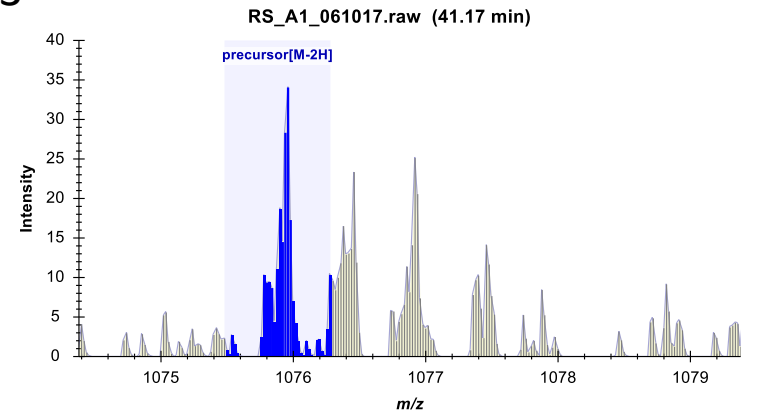
50a

2



50b

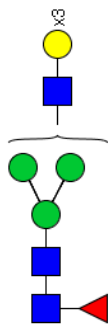
3



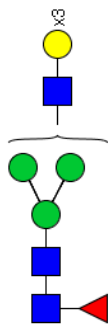
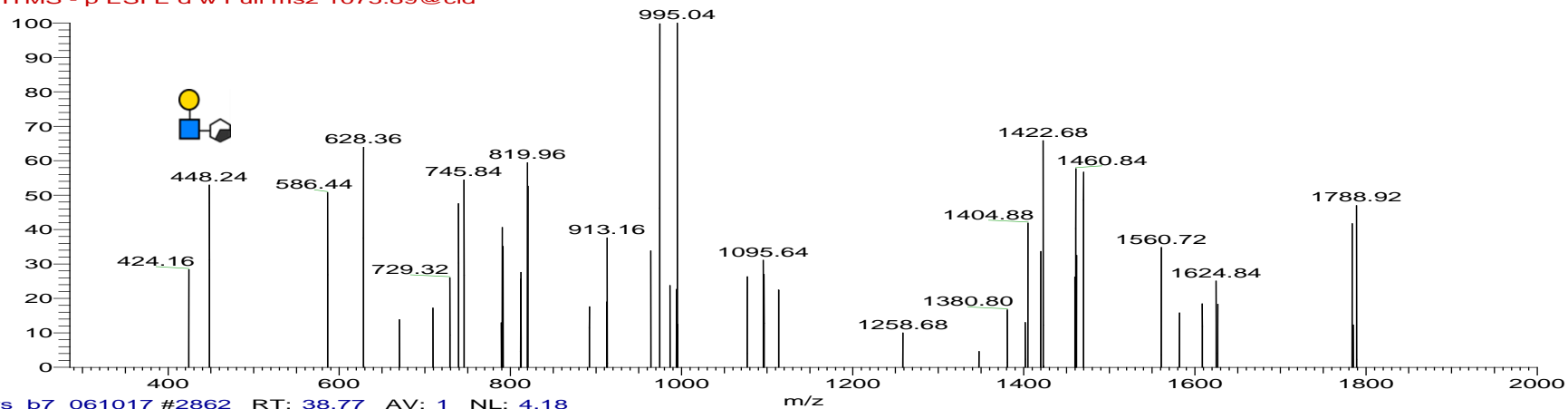
50c

GlytouCan ID: G42397NB

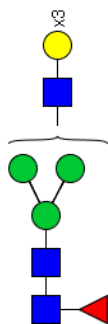
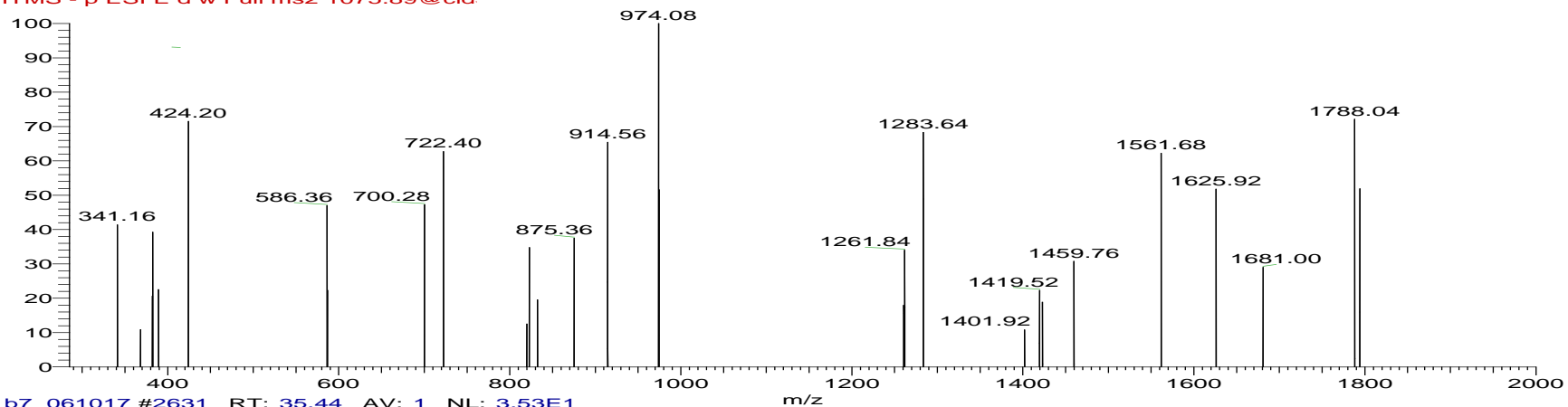
CID-MS/MS  
( $m/z$  1075.88  $^{2-}$ )



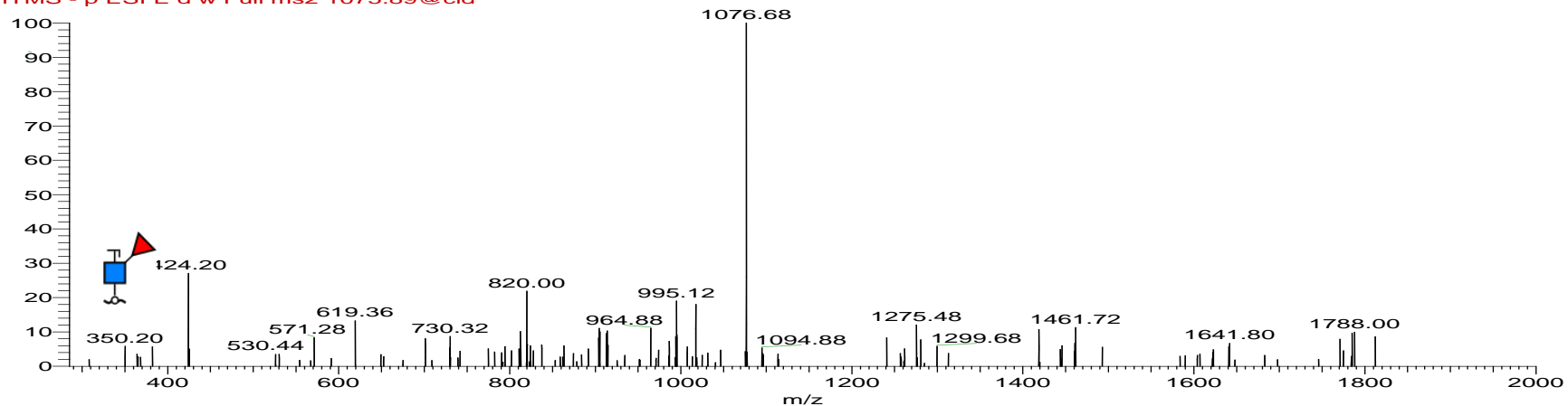
rs\_b7\_061017 #3220 RT: 43.91 AV: 1 NL: 5.07  
F: ITMS - p ESI E d w Full ms2 1075.89@cid



rs\_b7\_061017 #2862 RT: 38.77 AV: 1 NL: 4.18  
F: ITMS - p ESI E d w Full ms2 1075.89@cid



rs\_b7\_061017 #2631 RT: 35.44 AV: 1 NL: 3.53E1  
F: ITMS - p ESI E d w Full ms2 1075.89@cid



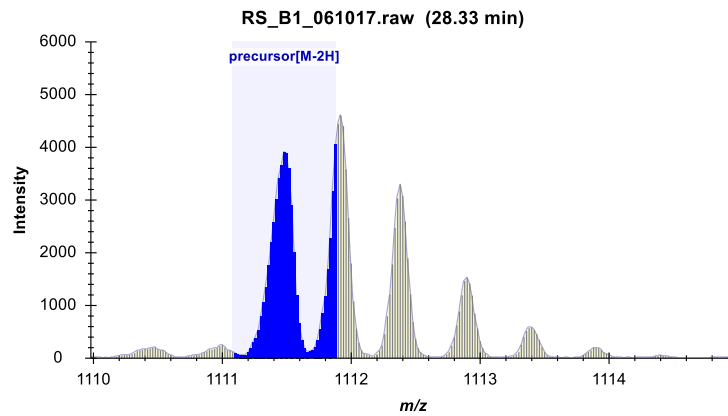
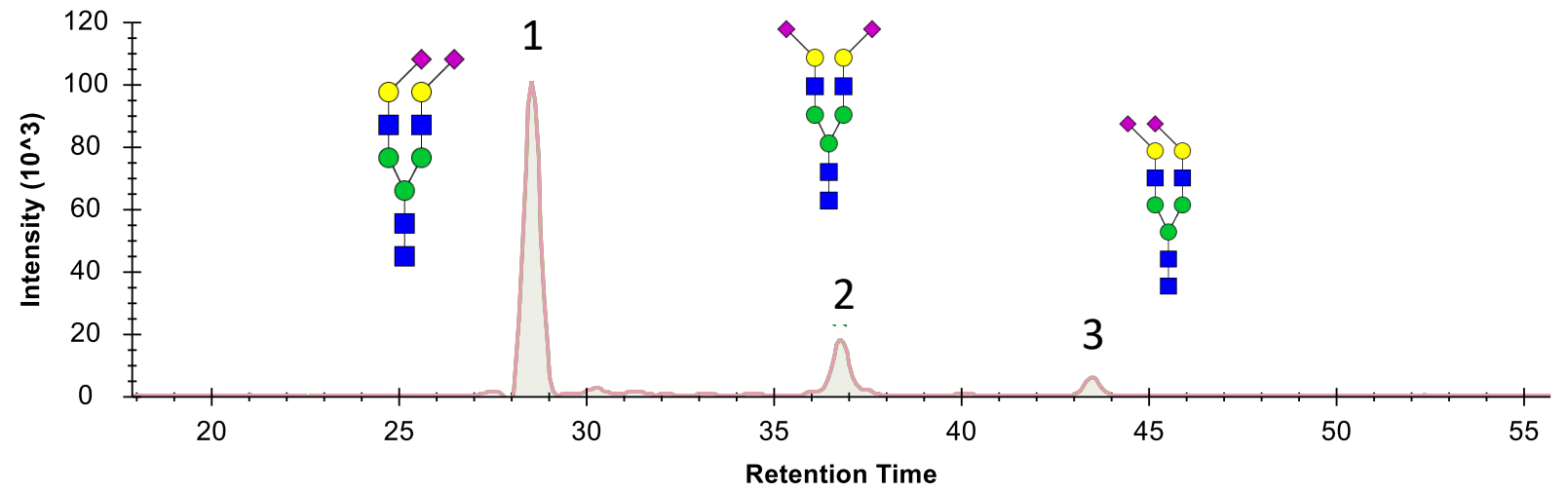
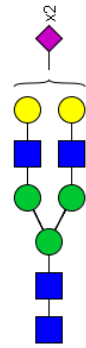




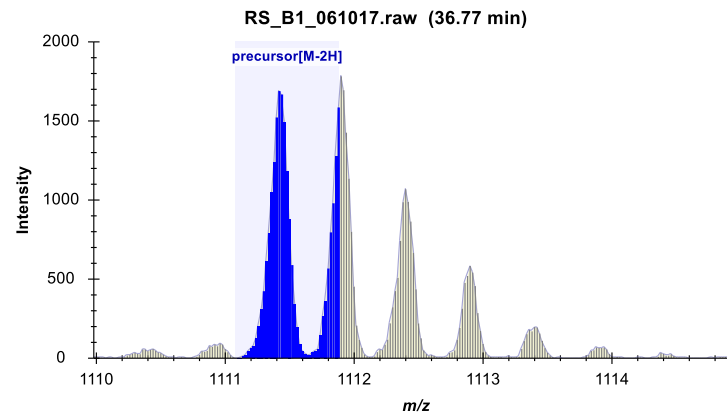
(Hex)2 (HexNAc)2 (NeuAc)2 + (Man)3(GlcNAc)2

GlytouCan ID: G09675DY

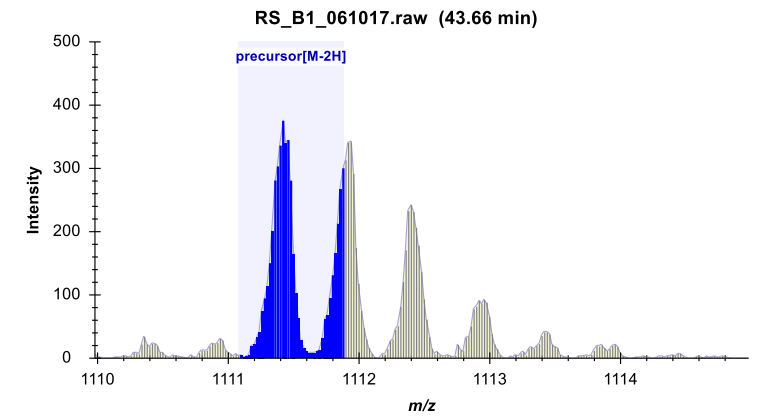
[M-2H] 1111.40



52a



52b

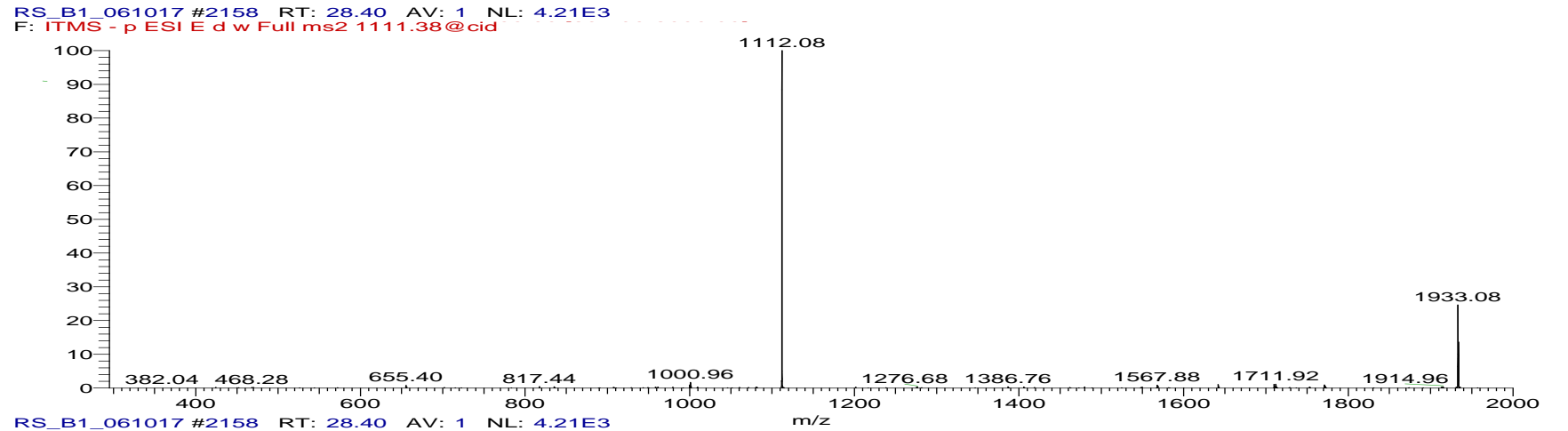
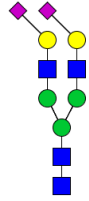


52c

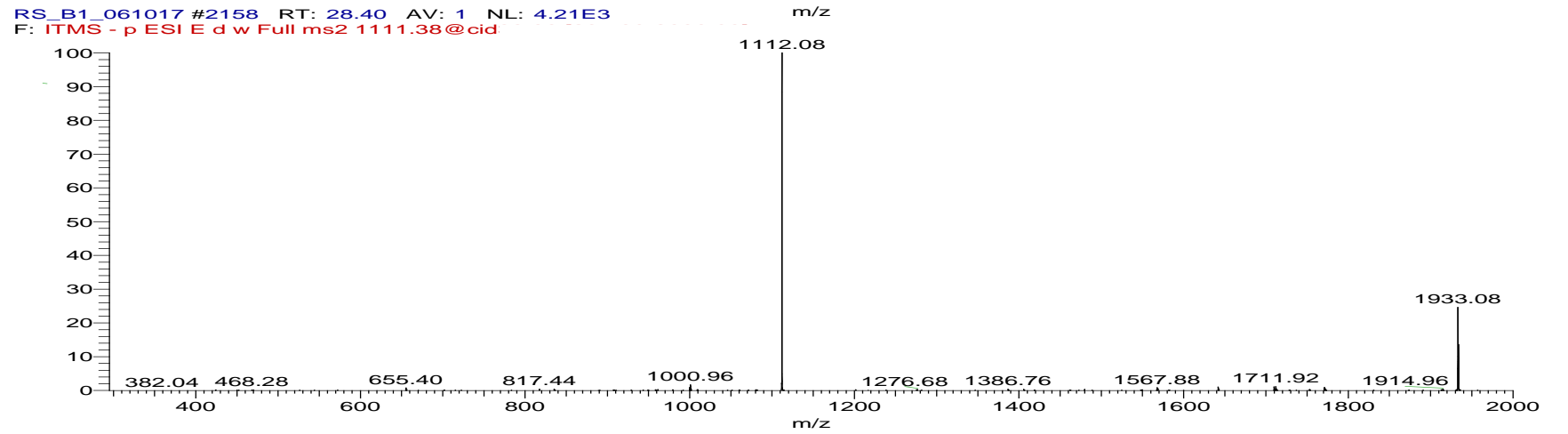
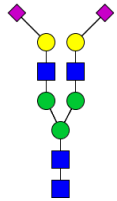
GlytouCan ID: G09675DY

CID-MS/MS  
( $m/z$  1111.40<sup>2-</sup>)

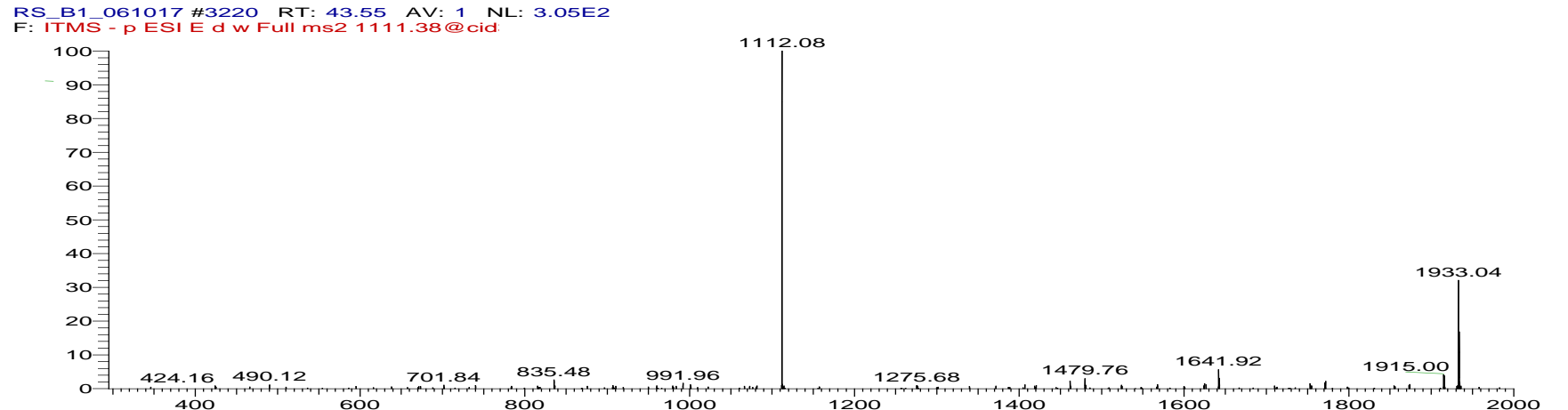
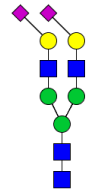
52a



52b



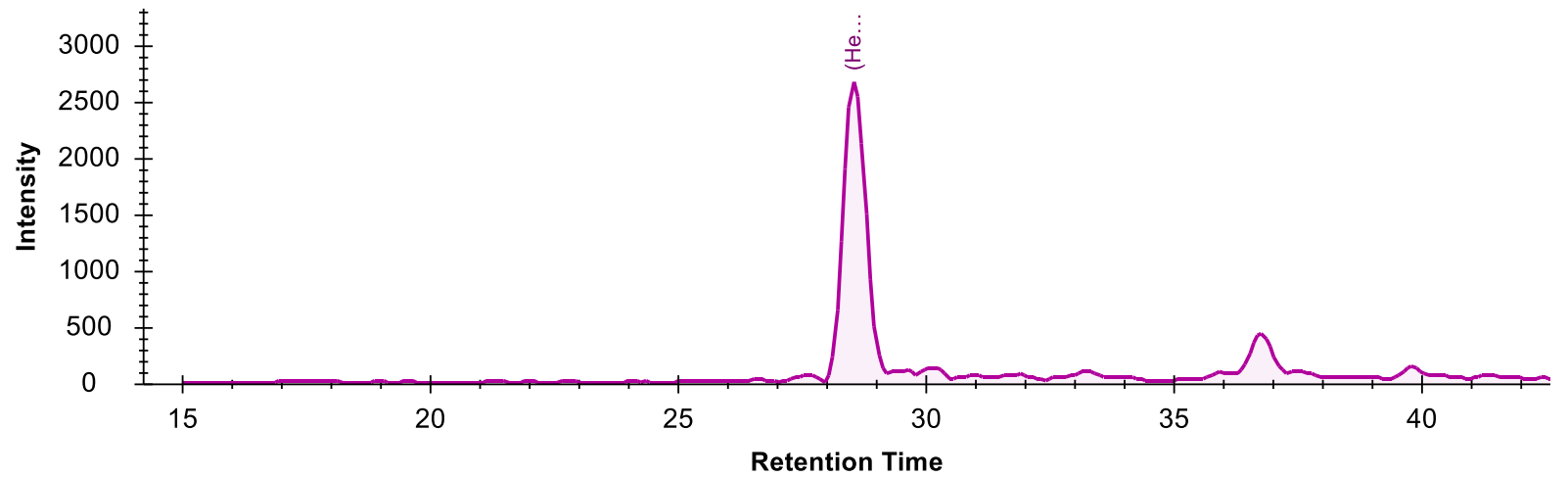
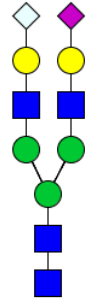
52c



(Hex)2 (HexNAc)2 (NeuAc)1 (NeuGc)1 + (Man)3(GlcNAc)2

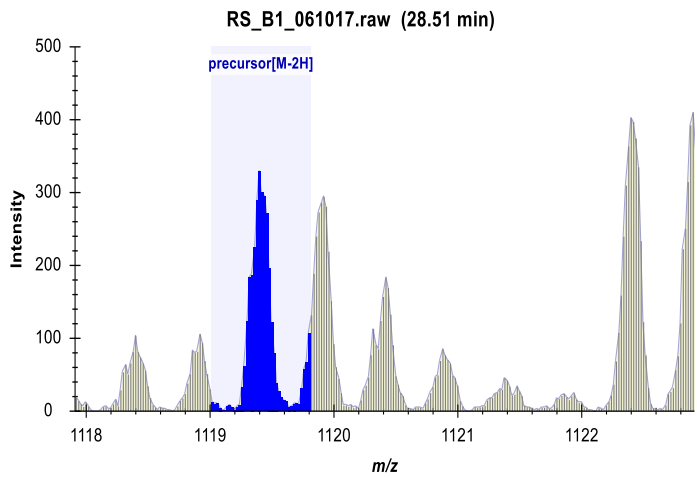
No Glytougan ID

[M-2H] 1119.41

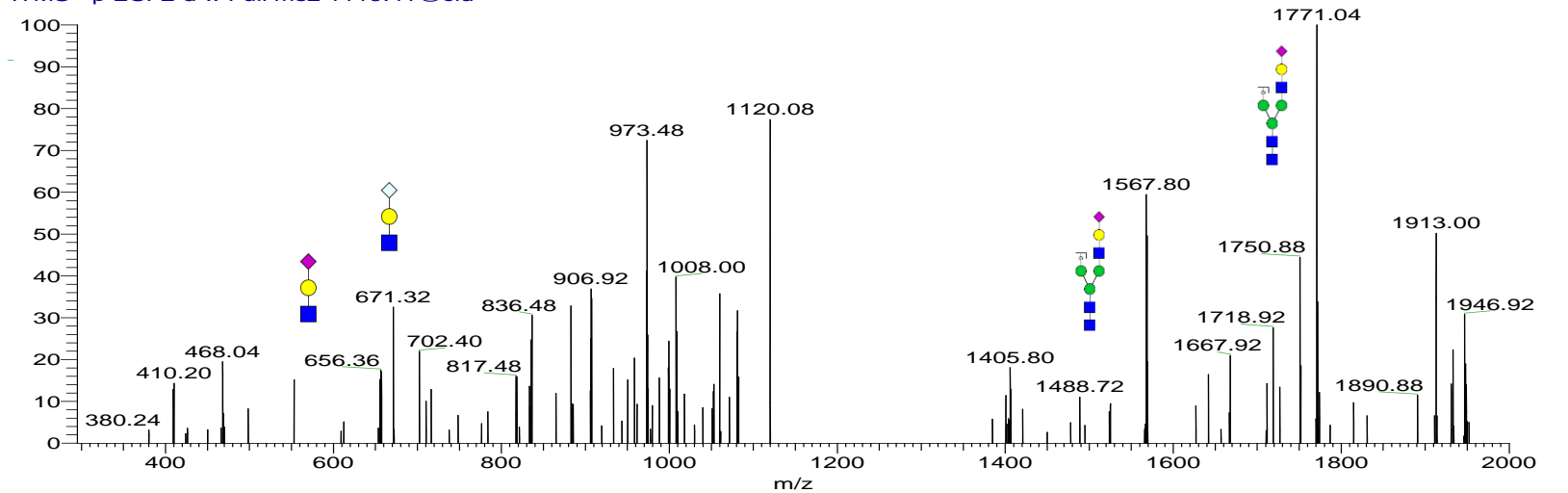


CID-MS/MS ( $m/z$  1119.41<sup>2-</sup>)

RS\_B1\_061017 #2172 RT: 28.59 AV: 1 NL: 1.67E1  
T: ITMS - p ESI E d w Full ms2 1119.41@cid



Glycan ID: 53

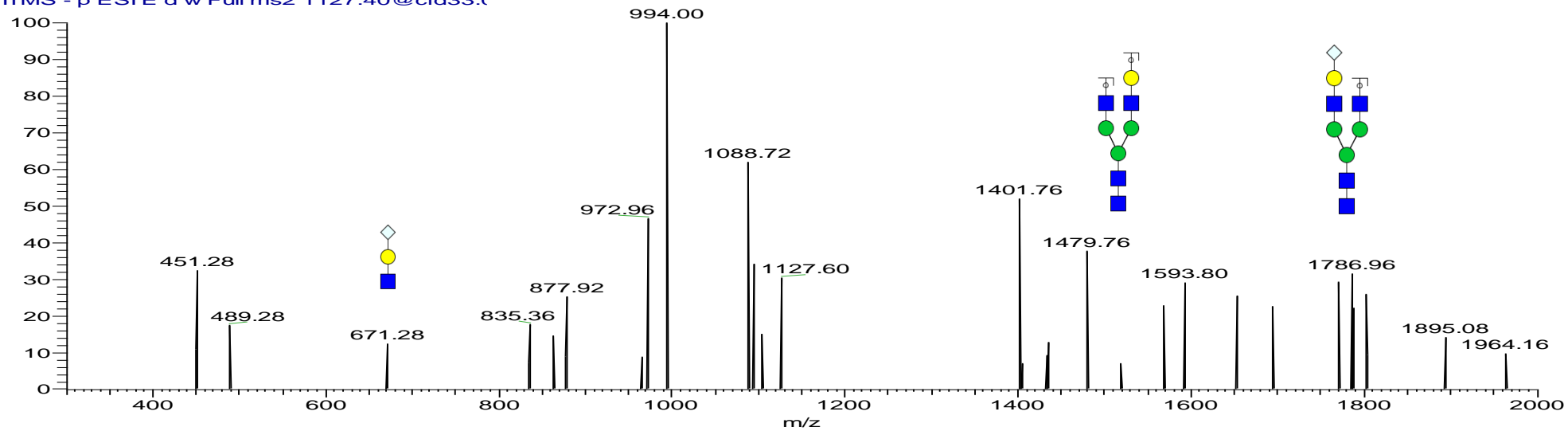
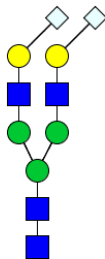




# CID-MS/MS ( $m/z$ 1127.39<sup>2-</sup>)

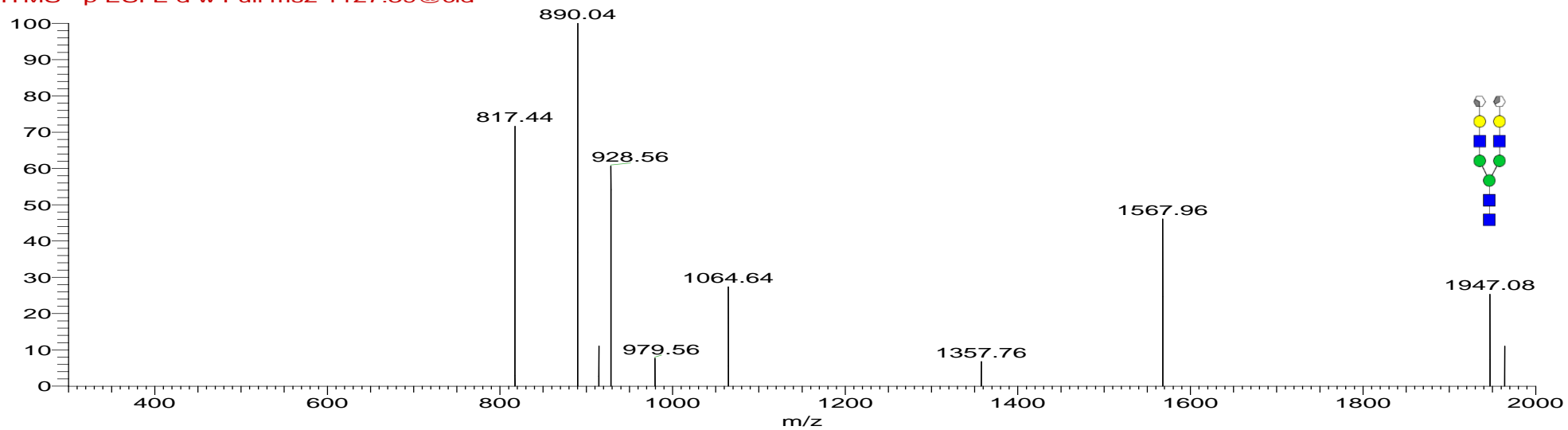
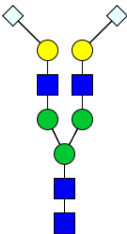
RS\_H3\_061017 #2278 RT: 29.79 AV: 1 NL: 7.15  
T: ITMS - p ESI E d w Full ms2 1127.40@cid33.(

54a



rs\_a3\_061017 #2886 RT: 38.61 AV: 1 NL: 6.01  
F: ITMS - p ESI E d w Full ms2 1127.39@cid

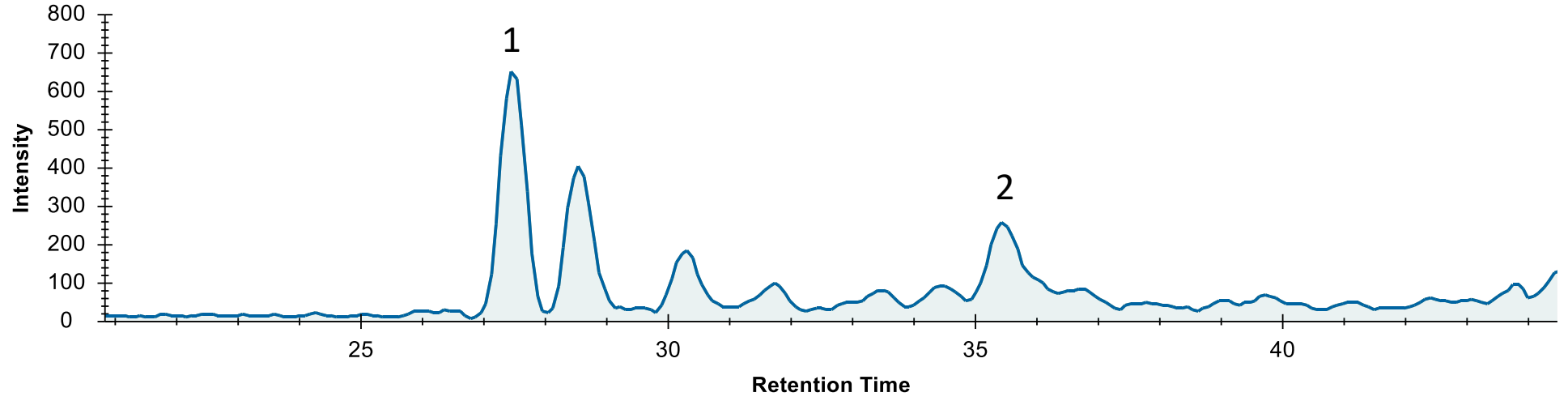
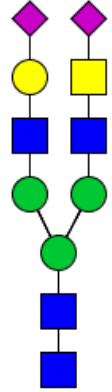
54b



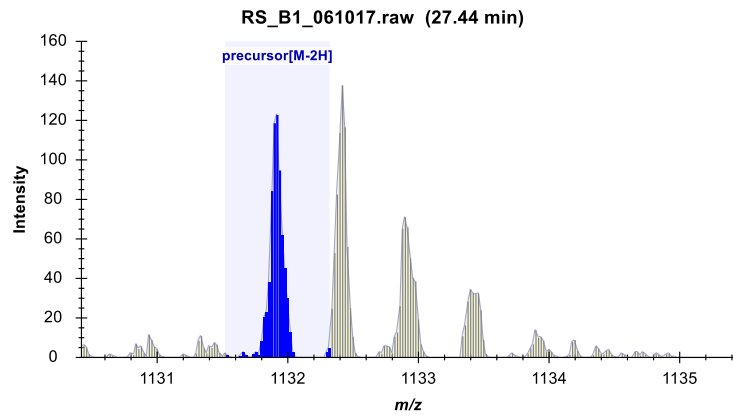
(Hex)1 (HexNAc)3 (NeuAc)2 + (Man)3(GlcNAc)2

No glytoucan

[M-2H] 1131.92

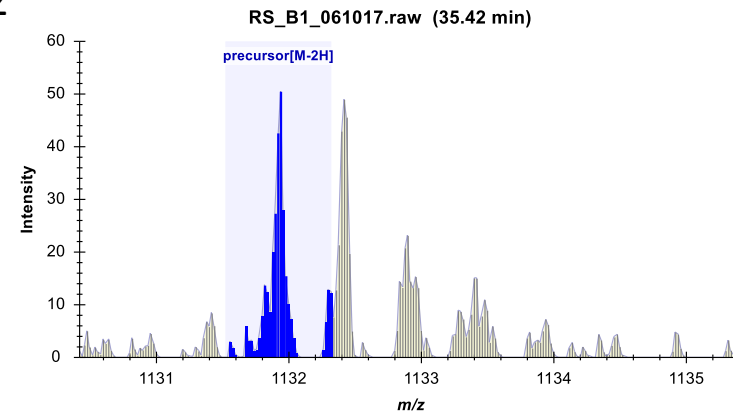


1



55a

2

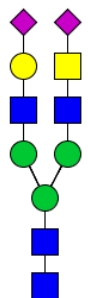


55b

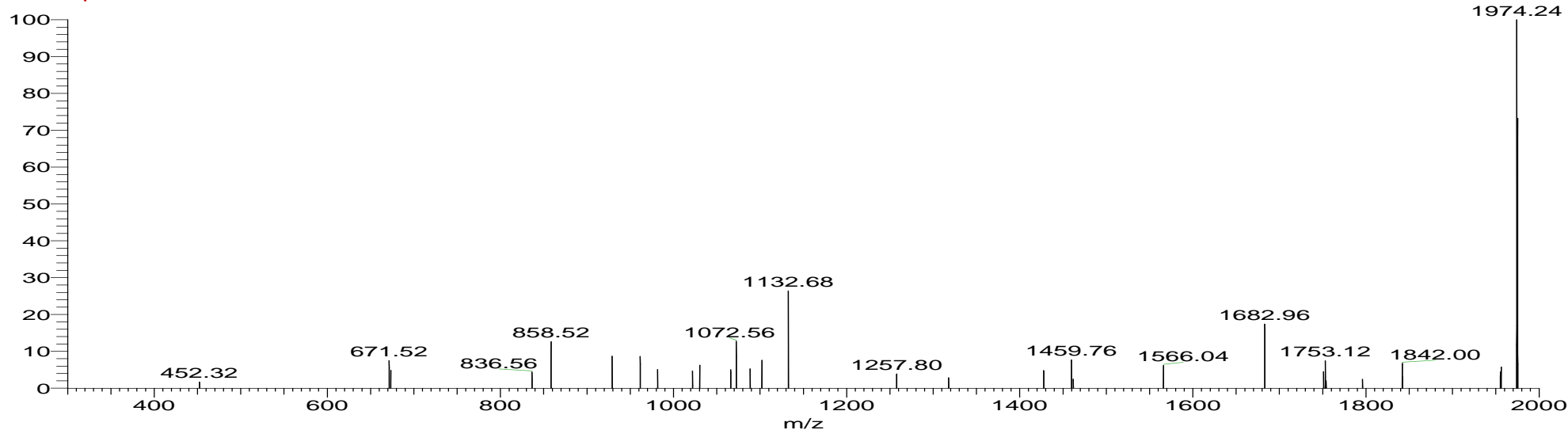
(Hex)1 (HexNAc)3 (NeuAc)2 + (Man)3(GlcNAc)2

CID-MS/MS  
( $m/z$  1131.94<sup>2-</sup>)

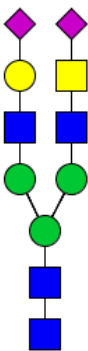
55a



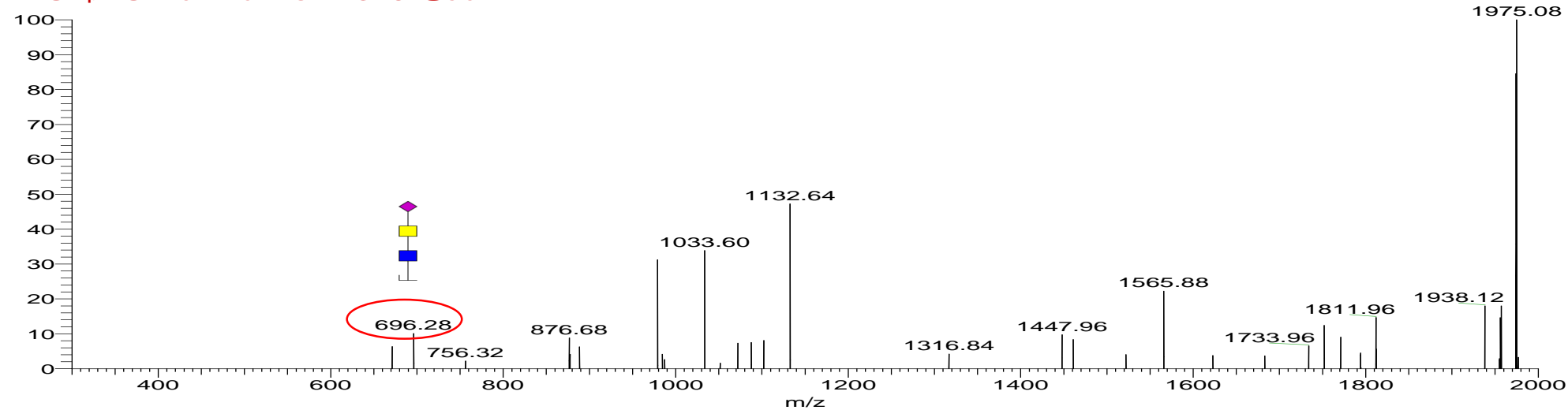
RS\_B5\_061017 #2242 RT: 29.75 AV: 1 NL: 2.45E1  
F: ITMS - p ESI E d w Full ms2 1131.94@cid



55b



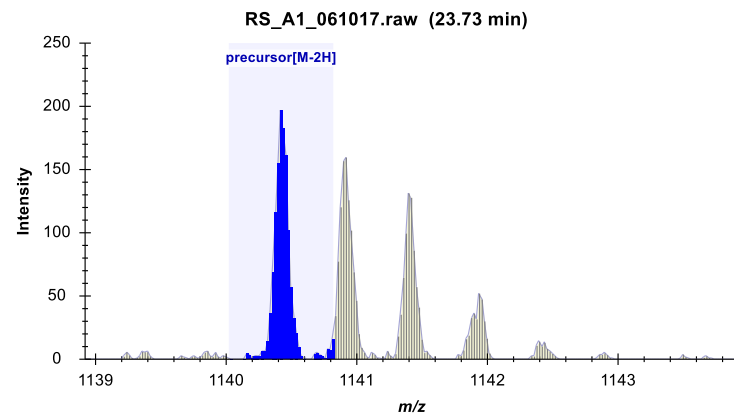
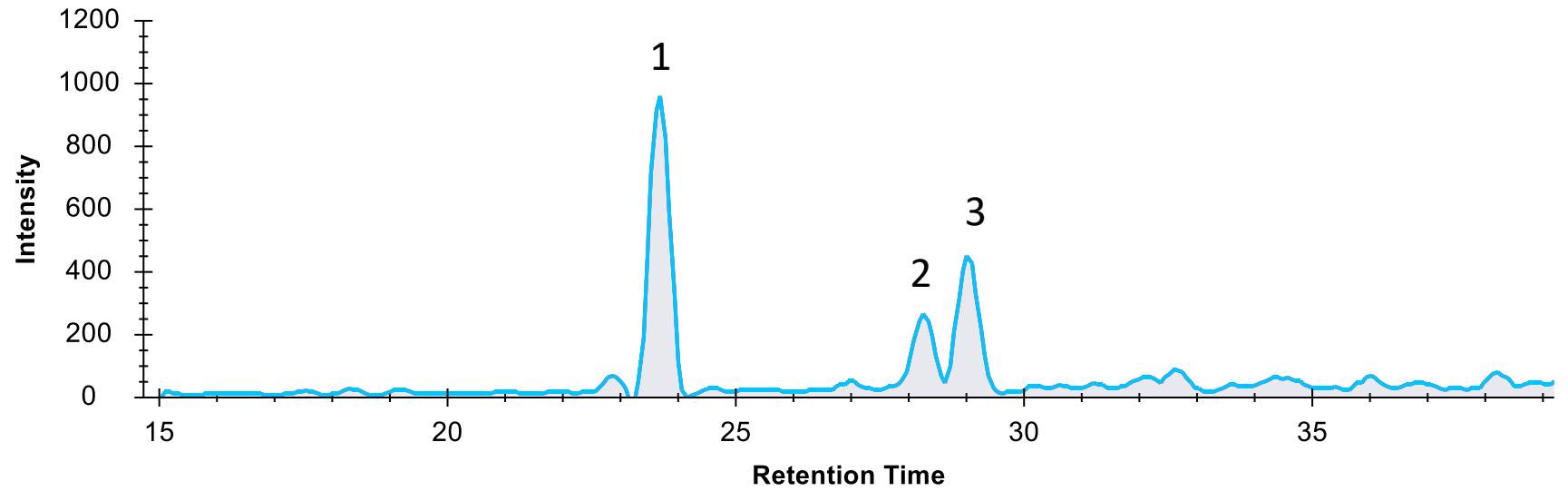
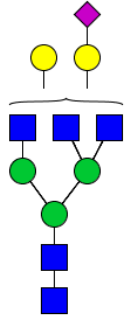
RS\_B5\_061017 #2800 RT: 37.89 AV: 1 NL: 1.83E1  
F: ITMS - p ESI E d w Full ms2 1131.94@cid



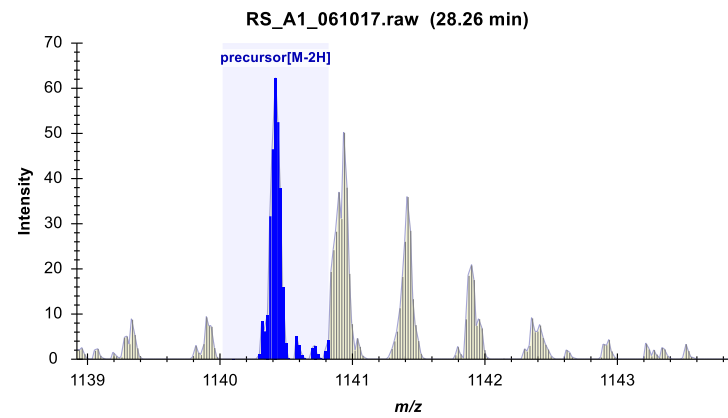
(Hex)2 (HexNAc)3 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

No GlytouCan ID

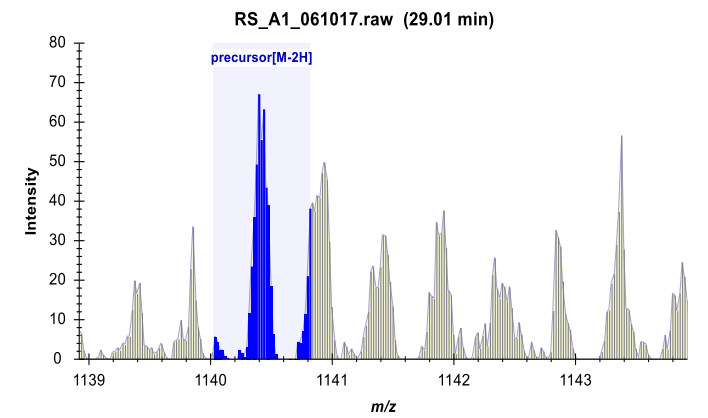
[M-2H] 1140.42



56a



56b

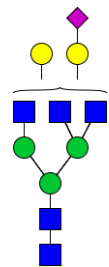


56c

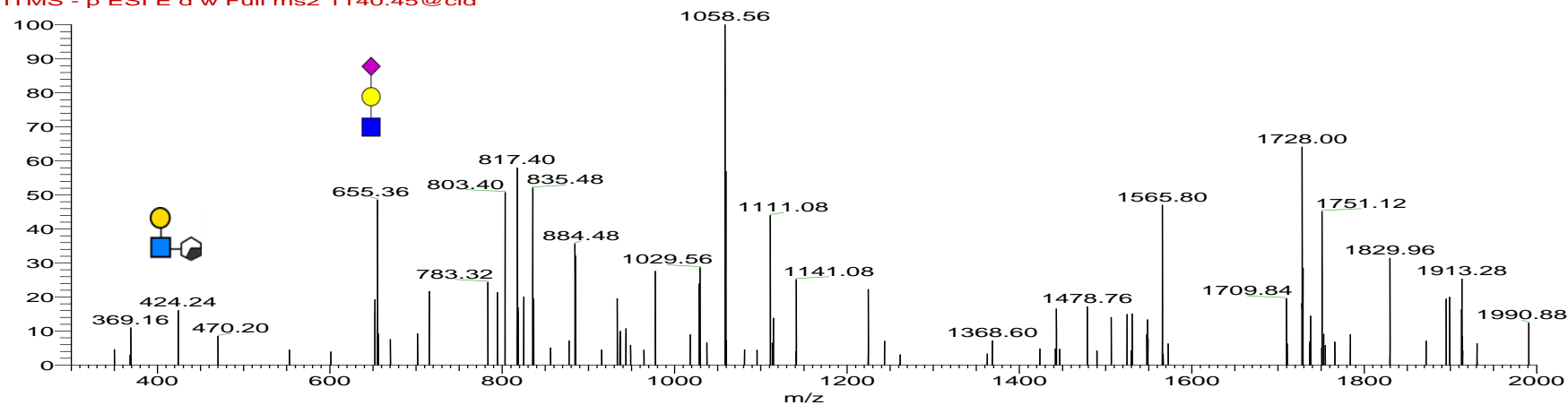


CID-MS/MS  
( $m/z$  1140.42  $^{2-}$ )

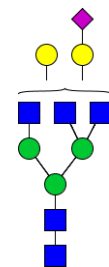
56a



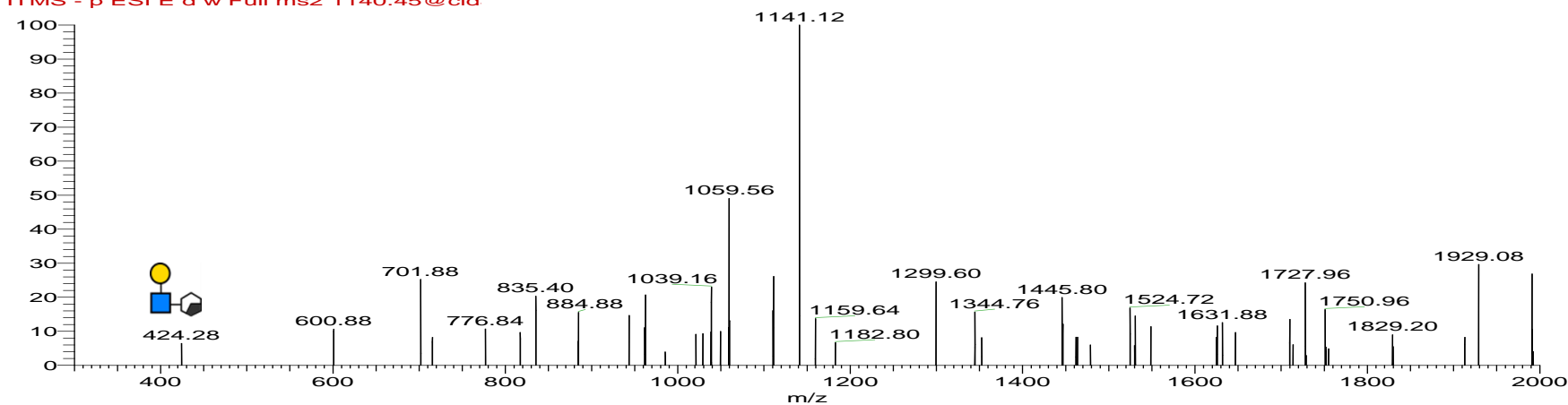
rs\_h4\_061017 #1980 RT: 25.82 AV: 1 NL: 1.39E1  
F: ITMS - p ESI E d w Full ms2 1140.45@cid



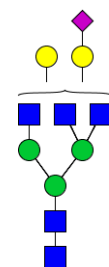
56b



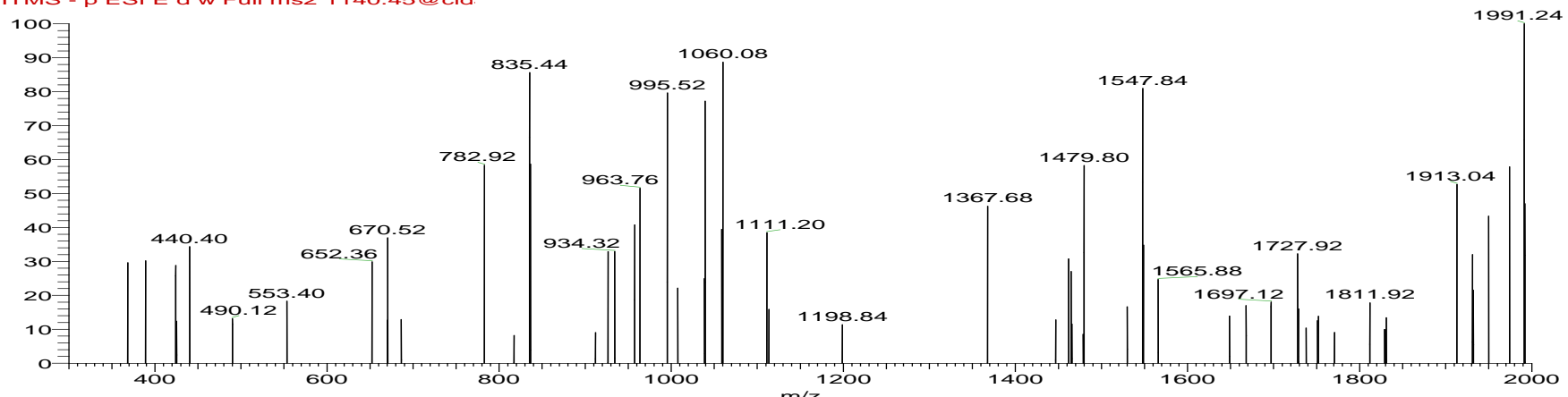
rs\_h4\_061017 #2330 RT: 30.55 AV: 1 NL: 1.29E1  
F: ITMS - p ESI E d w Full ms2 1140.45@cid



56c



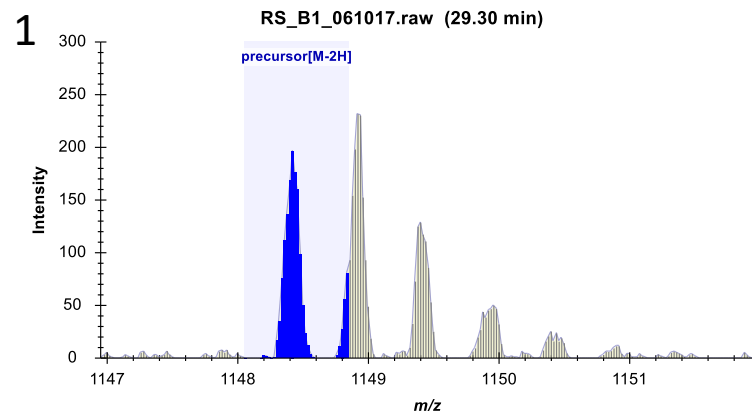
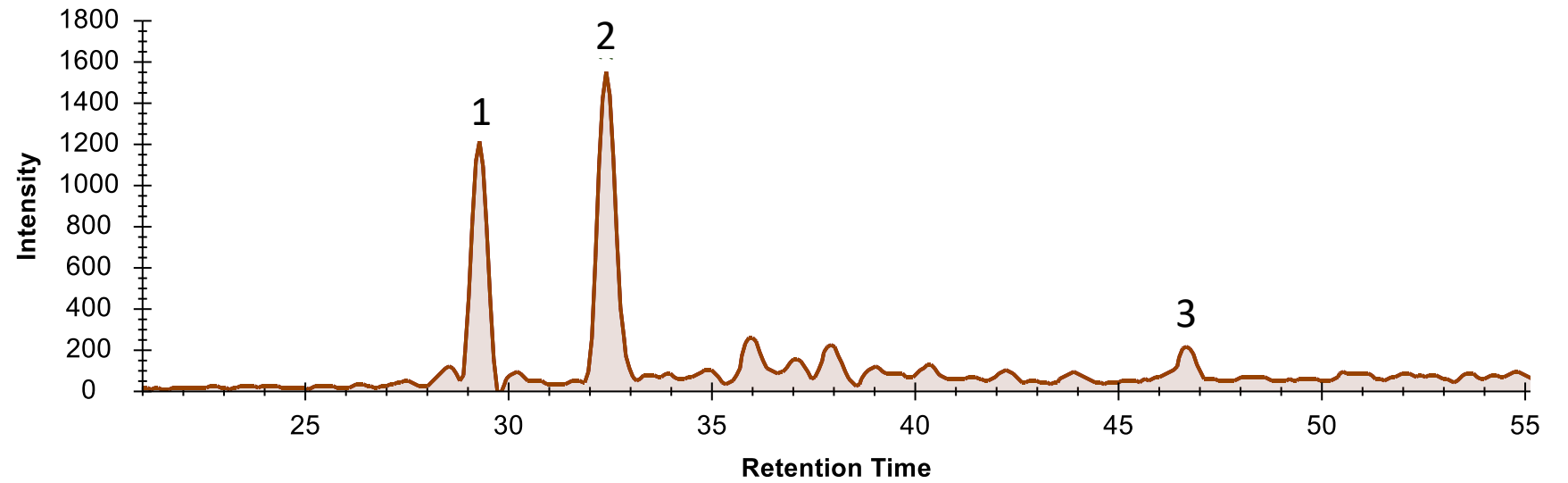
RS\_A8\_061017 #2304 RT: 30.62 AV: 1 NL: 5.75  
F: ITMS - p ESI E d w Full ms2 1140.45@cid



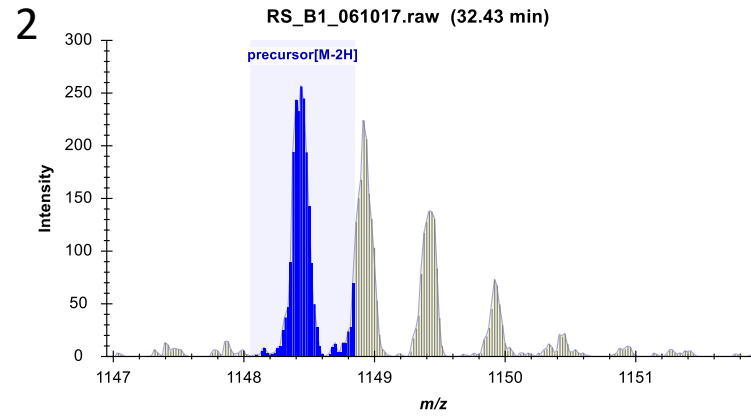
(Hex)<sub>3</sub> (HexNAc)<sub>3</sub> (NeuAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

GlytouCan ID: G029450A

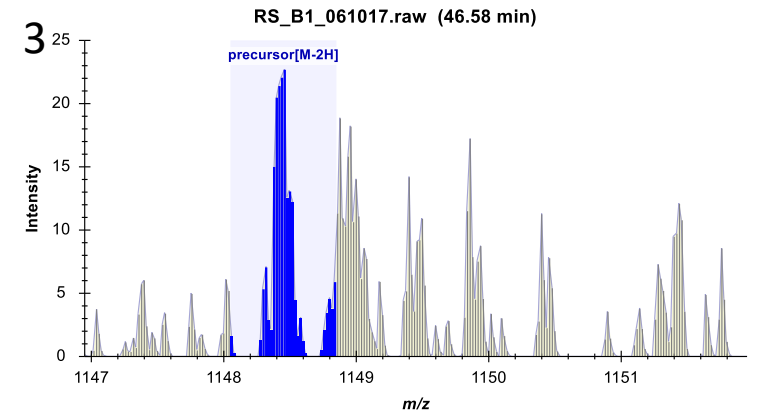
[M-2H]<sup>-</sup> 1148.45



57a



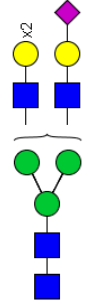
57b



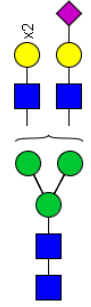
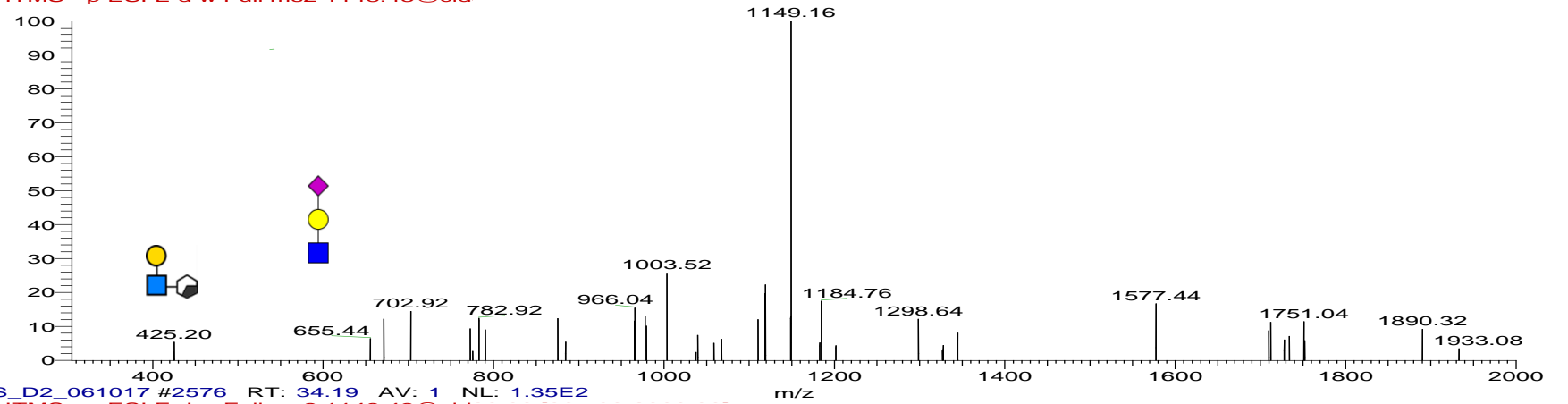
57c

GlytouCan ID: G029450A

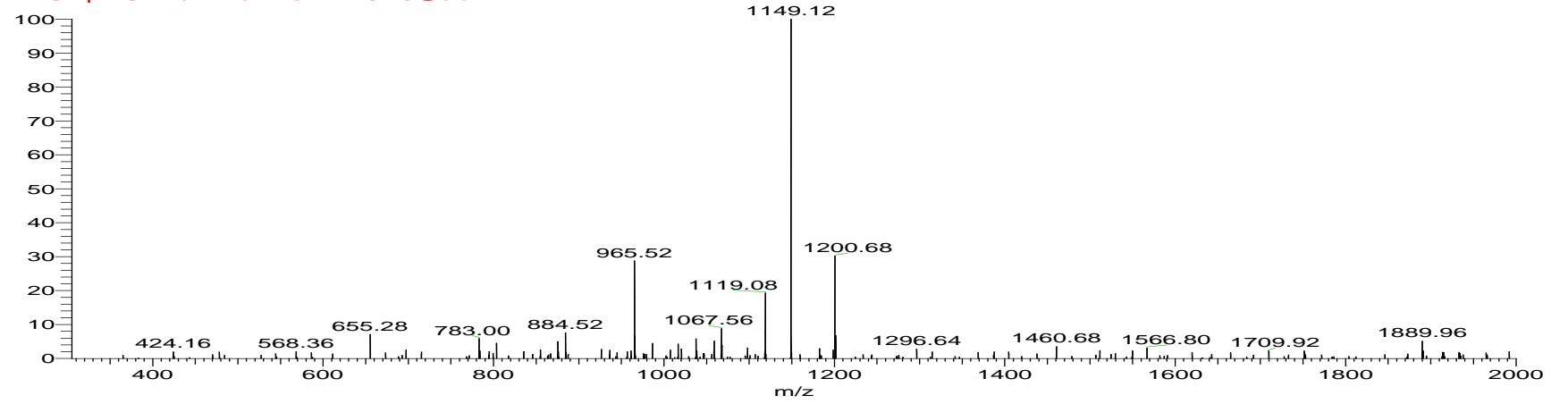
CID-MS/MS  
( $m/z$  1148.43<sup>2-</sup>)



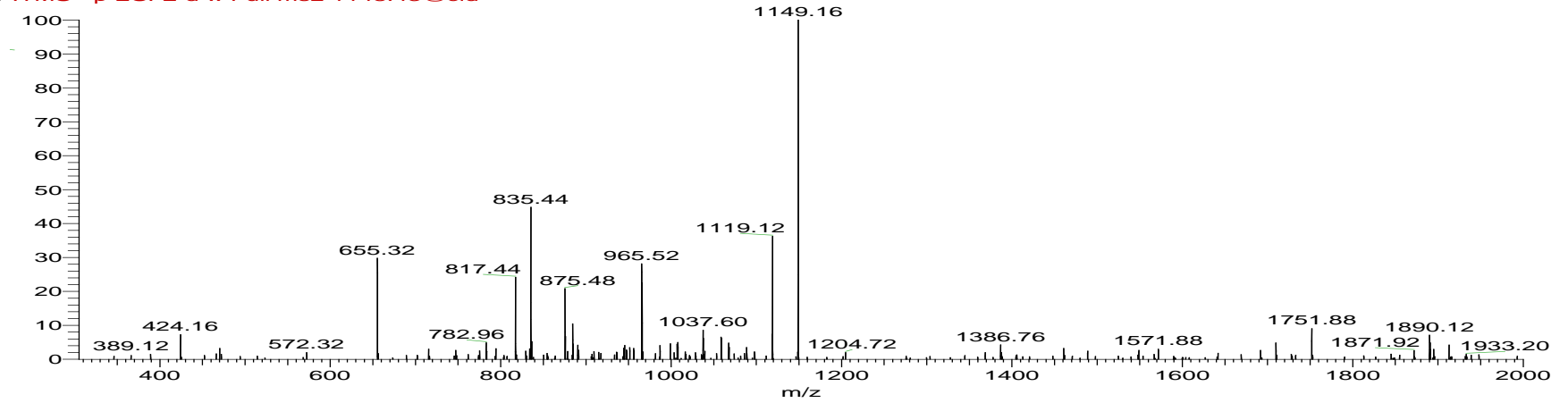
RS\_D2\_061017 #3521 RT: 47.73 AV: 1 NL: 1.72E1  
F: ITMS - p ESI E d w Full ms2 1148.43@cid



RS\_D2\_061017 #2576 RT: 34.19 AV: 1 NL: 1.35E2  
F: ITMS - p ESI E d w Full ms2 1148.43@cid



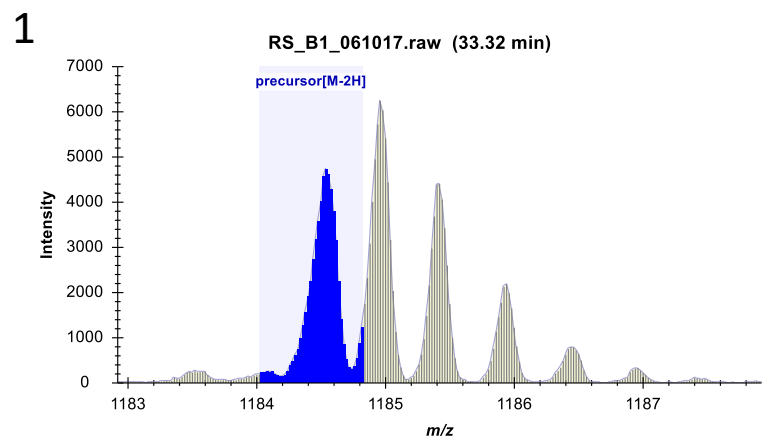
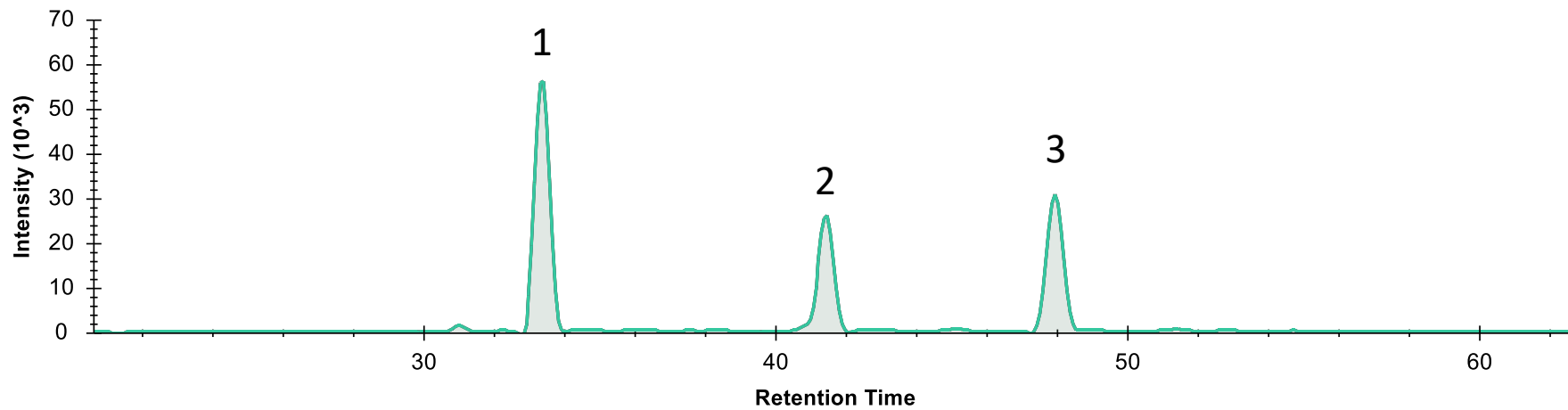
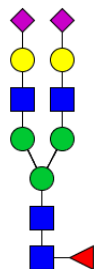
RS\_D2\_061017 #2354 RT: 30.98 AV: 1 NL: 1.46E2  
F: ITMS - p ESI E d w Full ms2 1148.43@cid



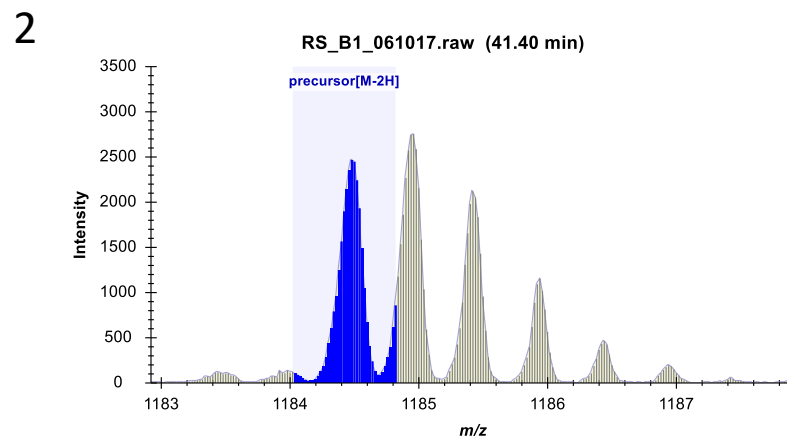
(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)

[M-2H] 1184.42

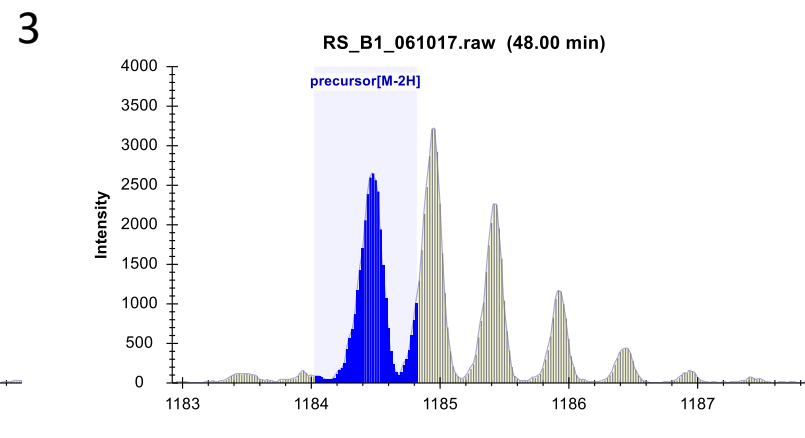
GlytouCan ID: G22754FQ



58a



58b



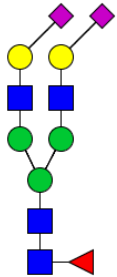
58c

GlytouCan ID: G22754FQ

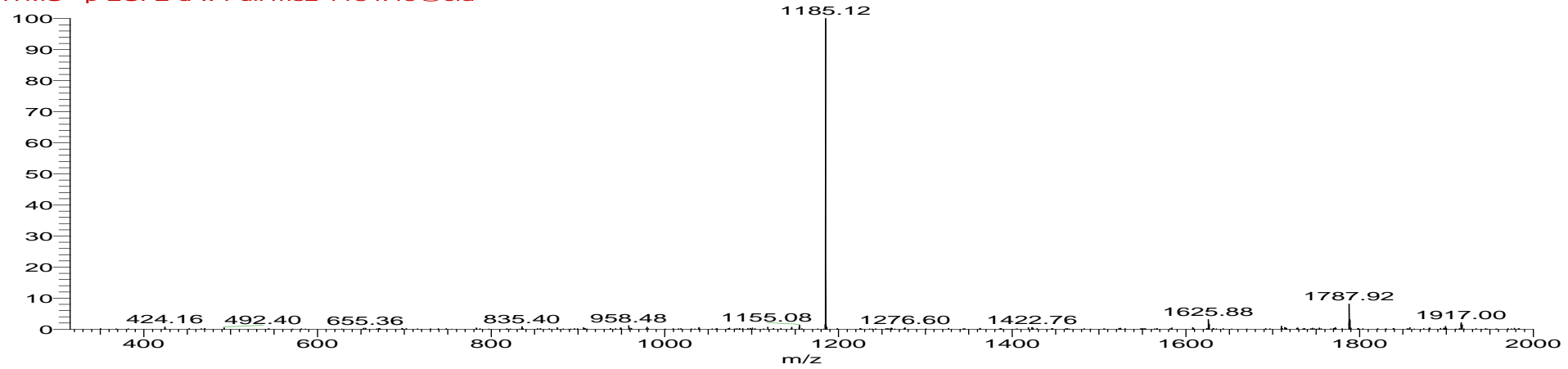
CID-MS/MS

( $m/z$  1184.49<sup>2-</sup>)

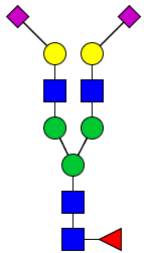
58a



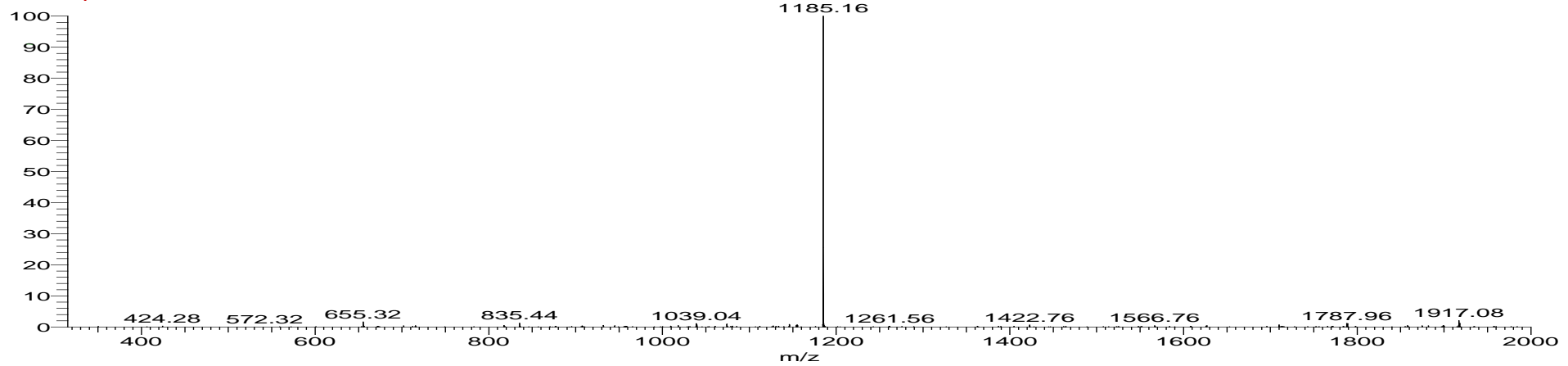
rs\_b1\_061017 #3536 RT: 47.88 AV: 1 NL: 1.20E3  
F: ITMS - p ESI E d w Full ms2 1184.49@cid



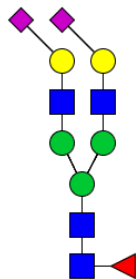
58b



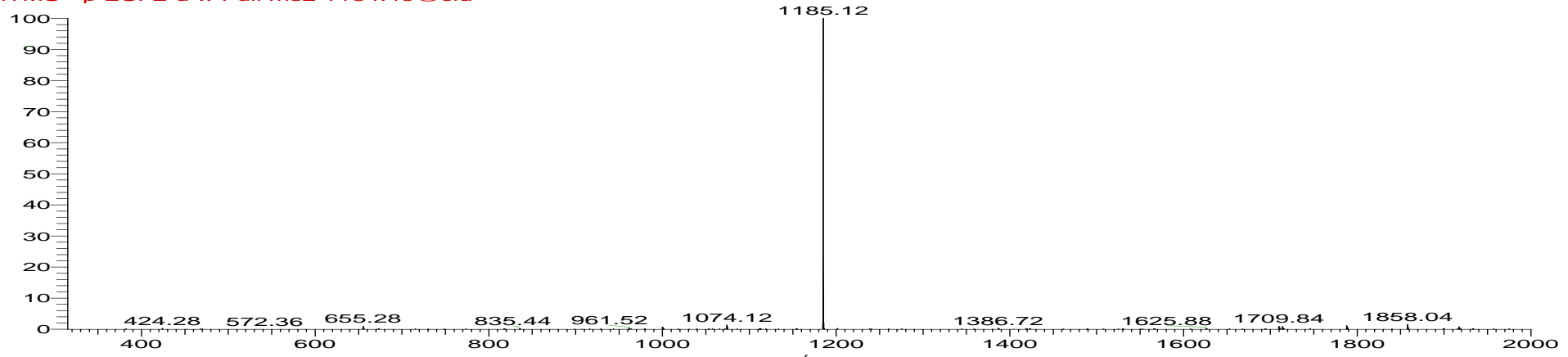
rs\_b1\_061017 #3080 RT: 41.61 AV: 1 NL: 1.35E3  
F: ITMS - p ESI E d w Full ms2 1184.49@cid



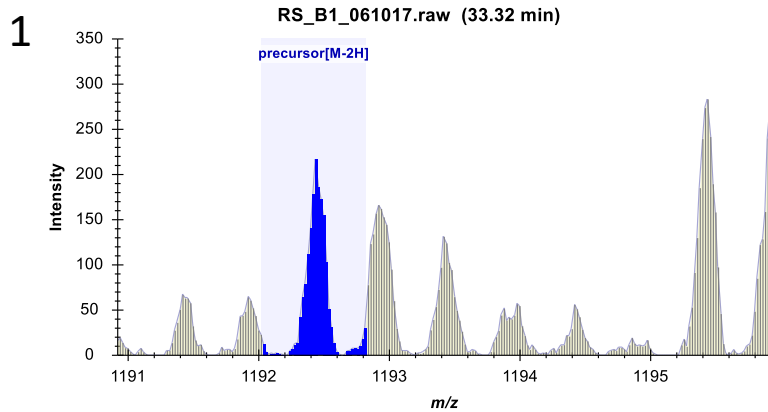
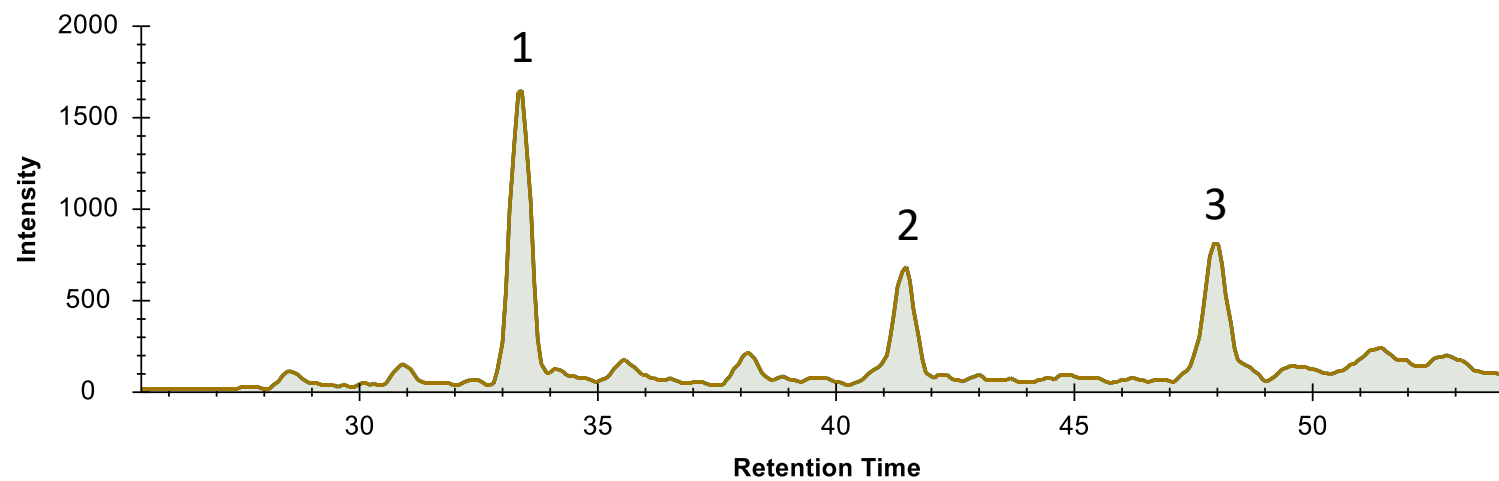
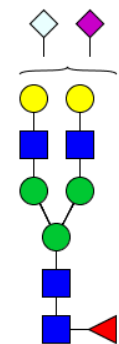
58c



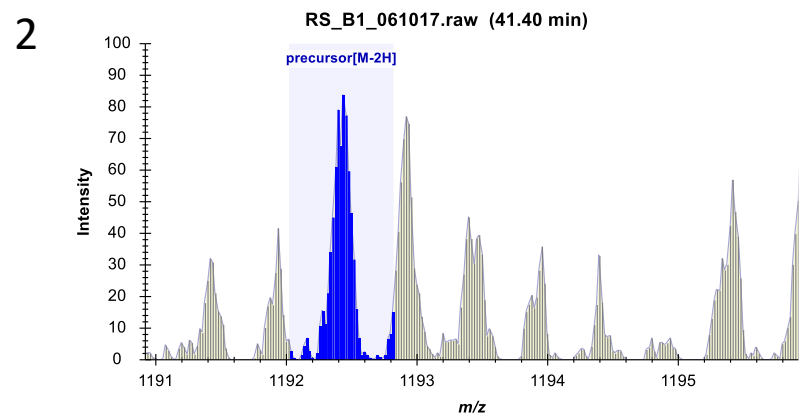
rs\_b1\_061017 #2504 RT: 33.45 AV: 1 NL: 4.18E3  
F: ITMS - p ESI E d w Full ms2 1184.49@cid



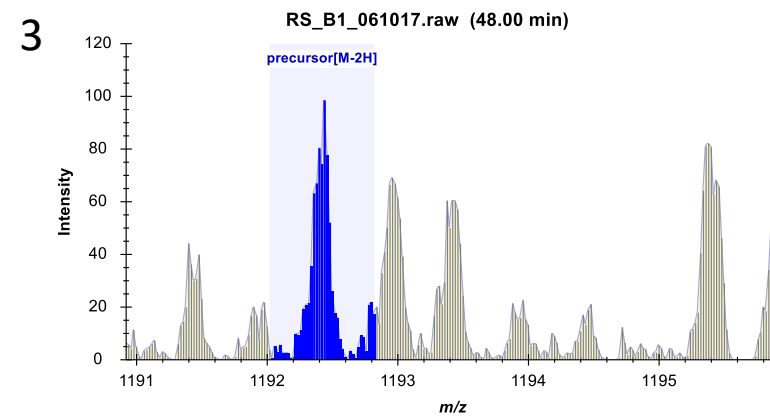
(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuAc)1 (NeuGc)1 + (Man)3(GlcNAc)2  
No Glytoucan ID  
[M-2H] 1192.42



59a



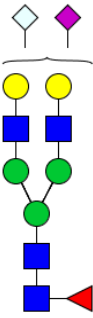
59b



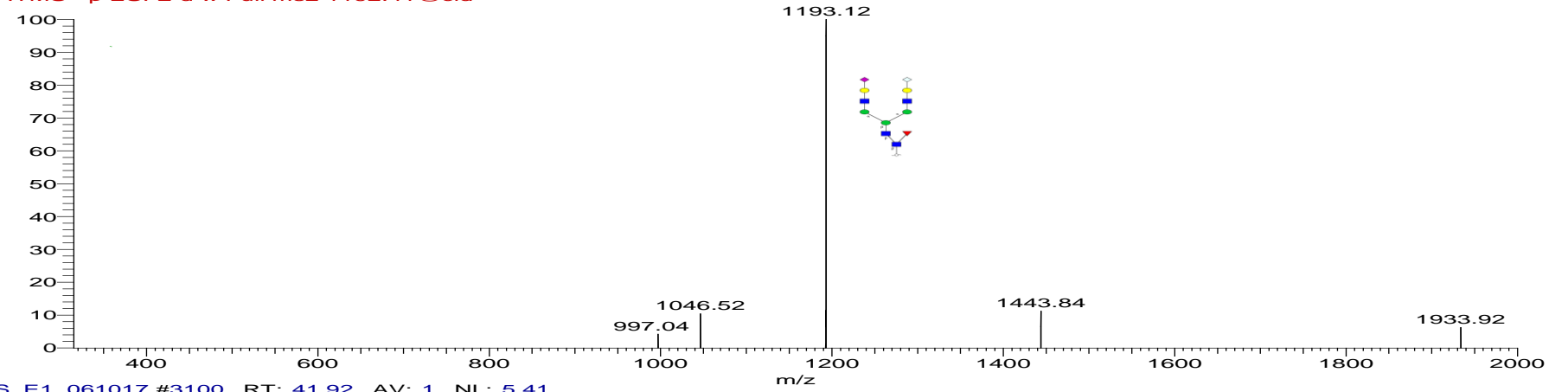
59c

# CID-MS/MS ( $m/z$ 1192.47<sup>2-</sup>)

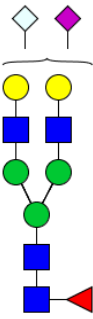
59a



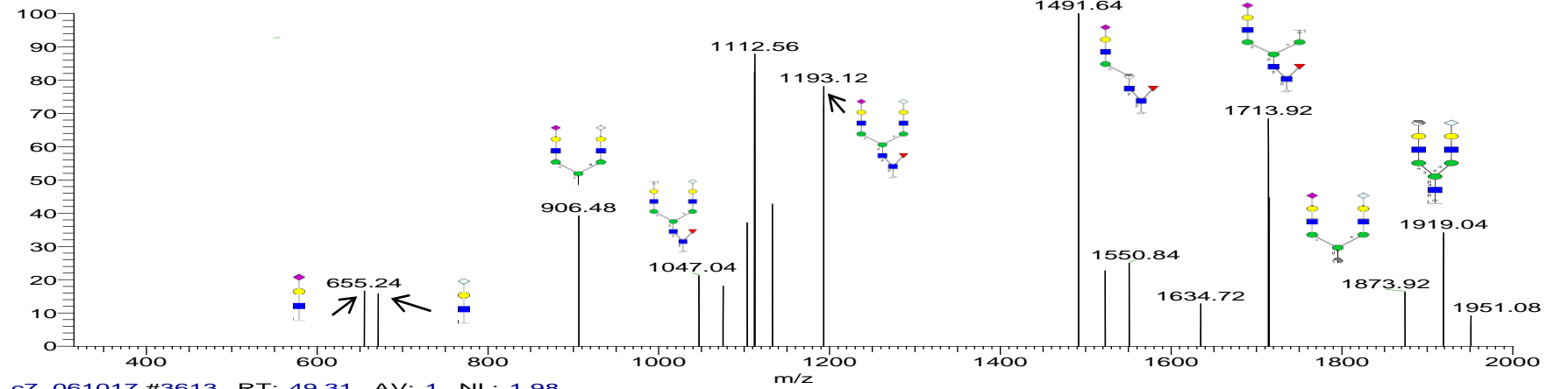
rs\_d1\_061017 #2718 RT: 35.91 AV: 1 NL: 1.89E1  
F: ITMS - p ESI E d w Full ms2 1192.41@cid



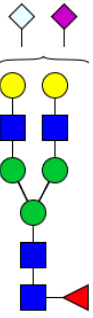
59b



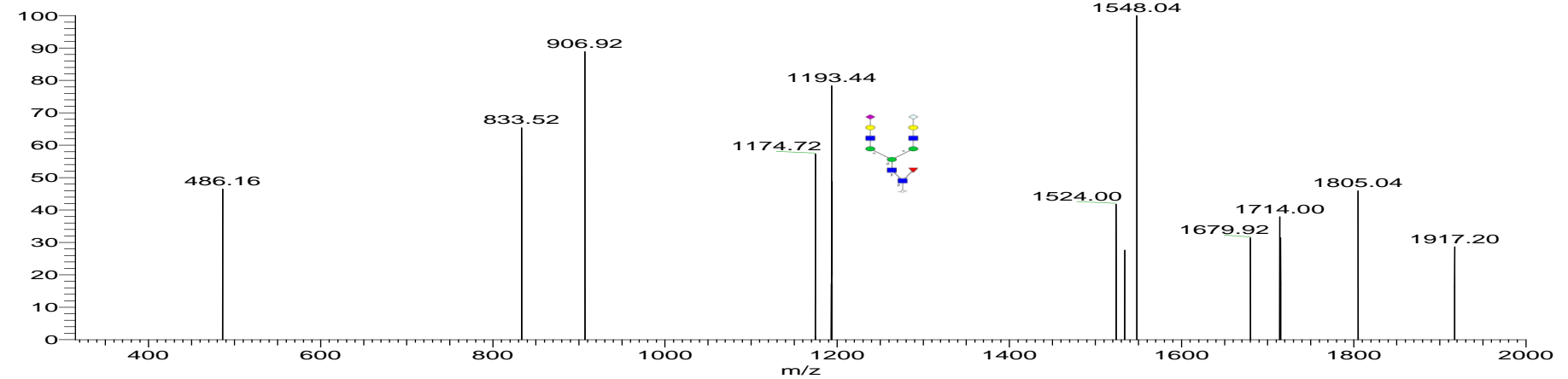
RS\_E1\_061017 #3100 RT: 41.92 AV: 1 NL: 5.41  
T: ITMS - p ESI E d w Full ms2 1192.43@cid



59c



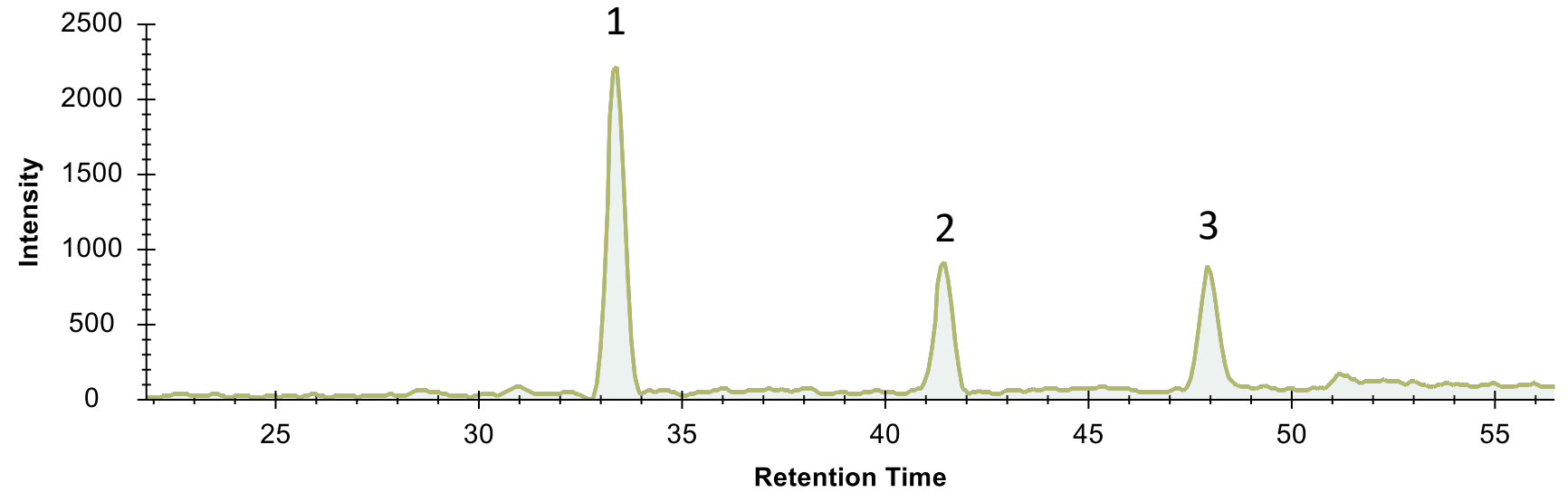
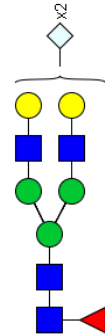
rs\_c7\_061017 #3613 RT: 49.31 AV: 1 NL: 1.98  
F: ITMS - p ESI E d w Full ms2 1192.47@cid



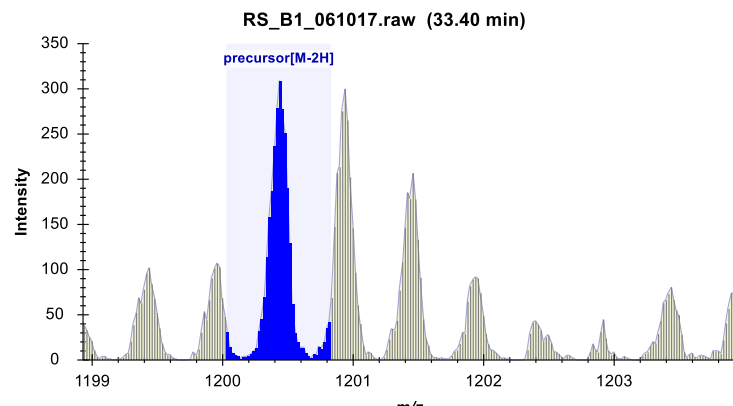
(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuGc)2 + (Man)3(GlcNAc)2

No GlytouCan ID

[M-2H] 1200.43

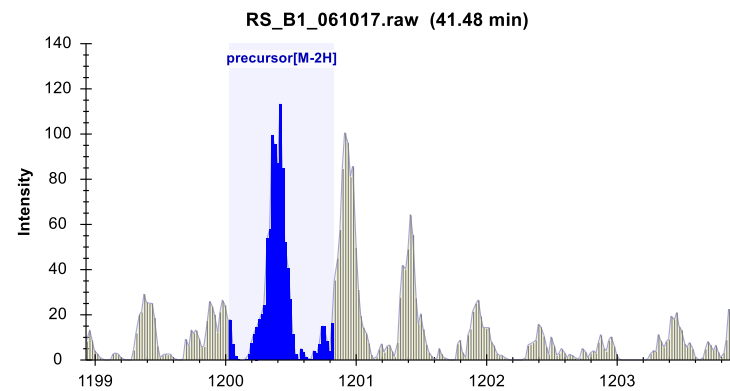


1



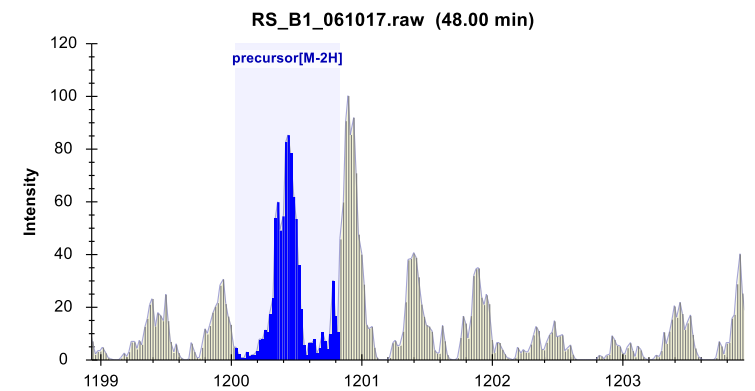
60a

2



60b

3

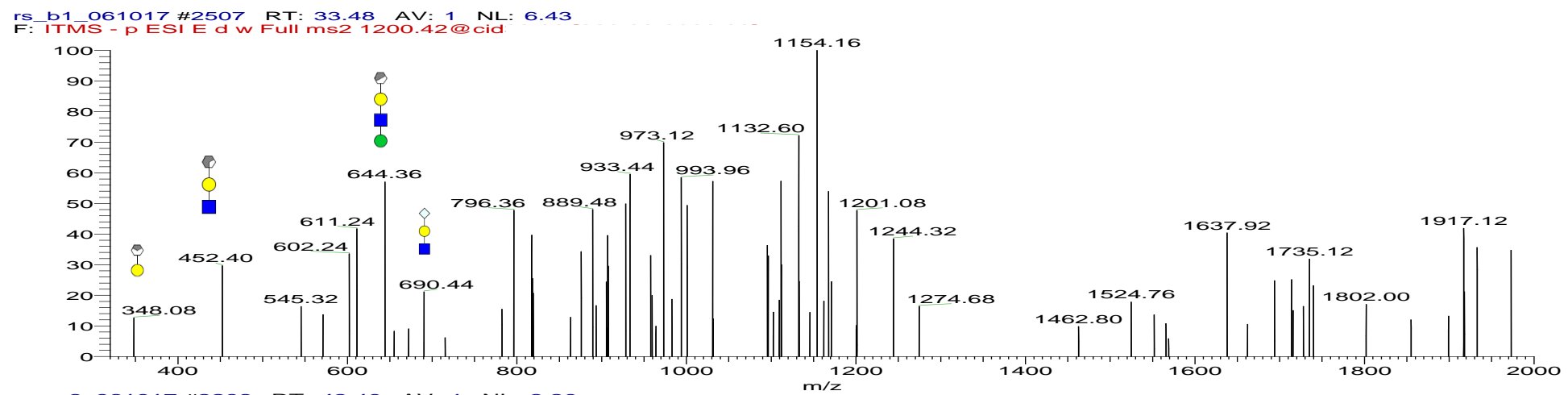
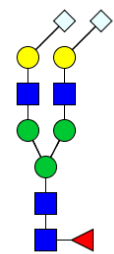


60c

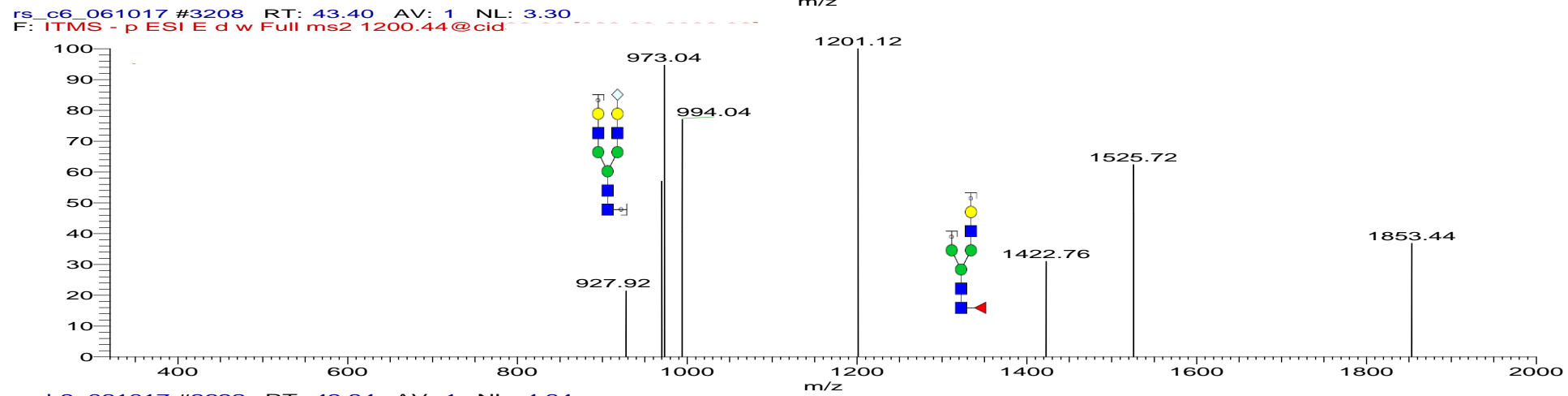
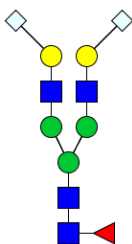


CID-MS/MS  
( $m/z$  1200.43<sup>2-</sup>)

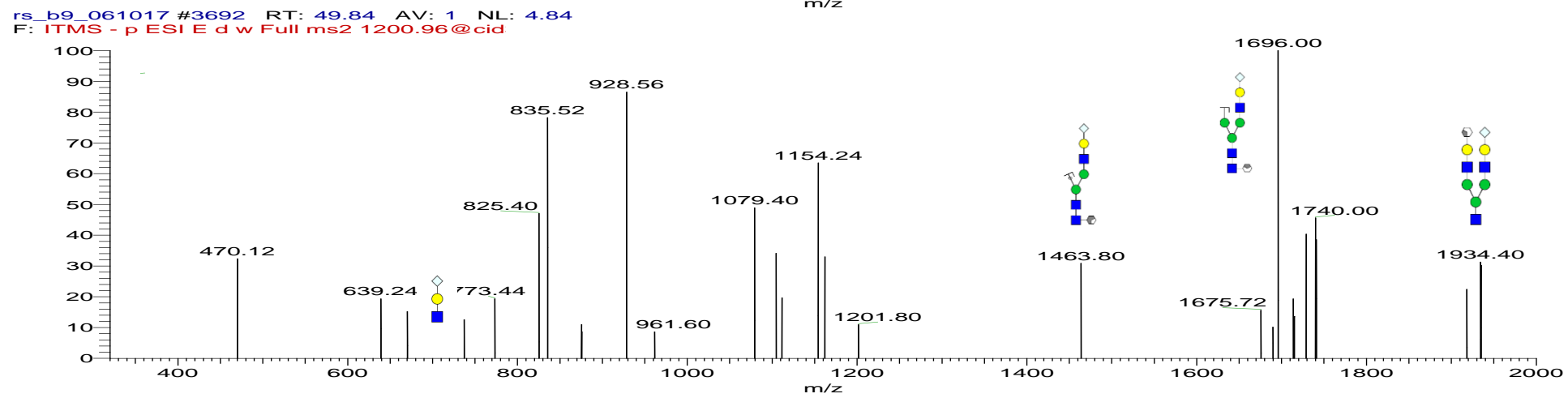
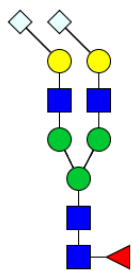
60a



60b



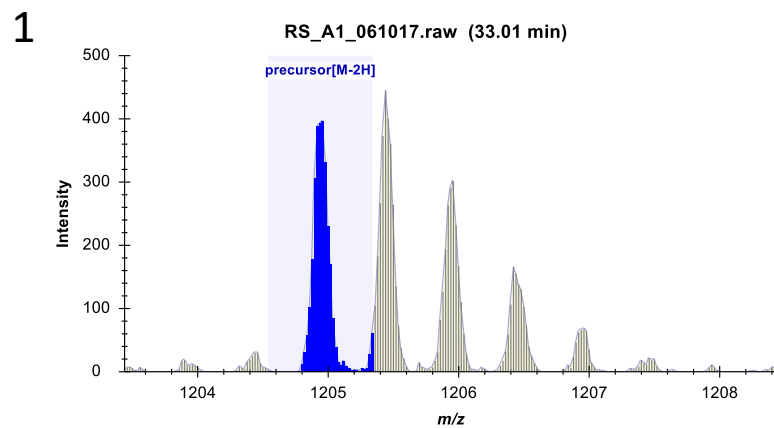
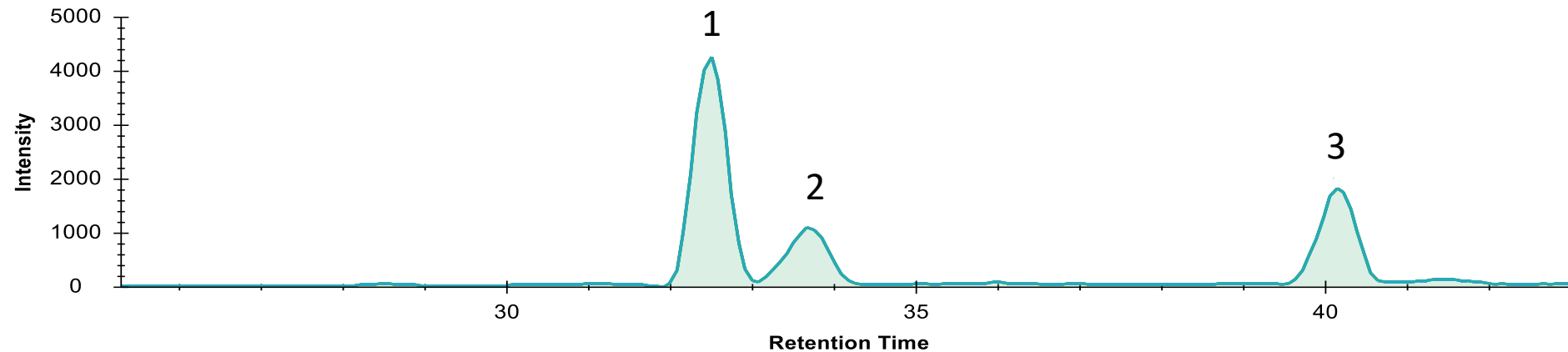
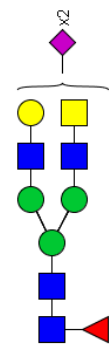
60c



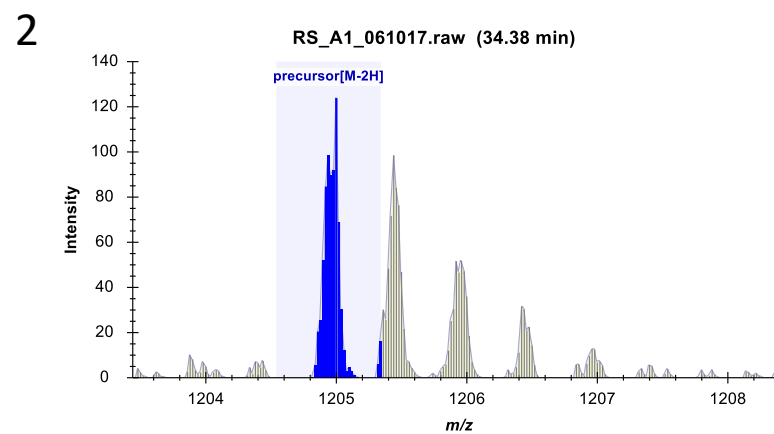
(Hex)1 (HexNAc)3 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)2

GlytouCan ID: G56309UJ

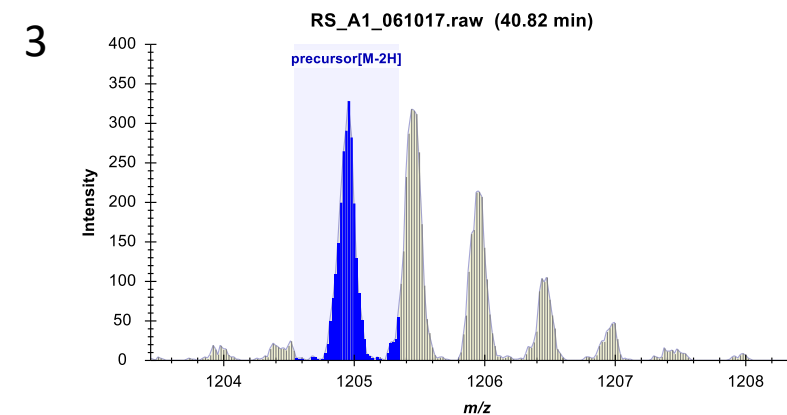
[M-2H]<sup>-</sup> 1204.94



61a



61b



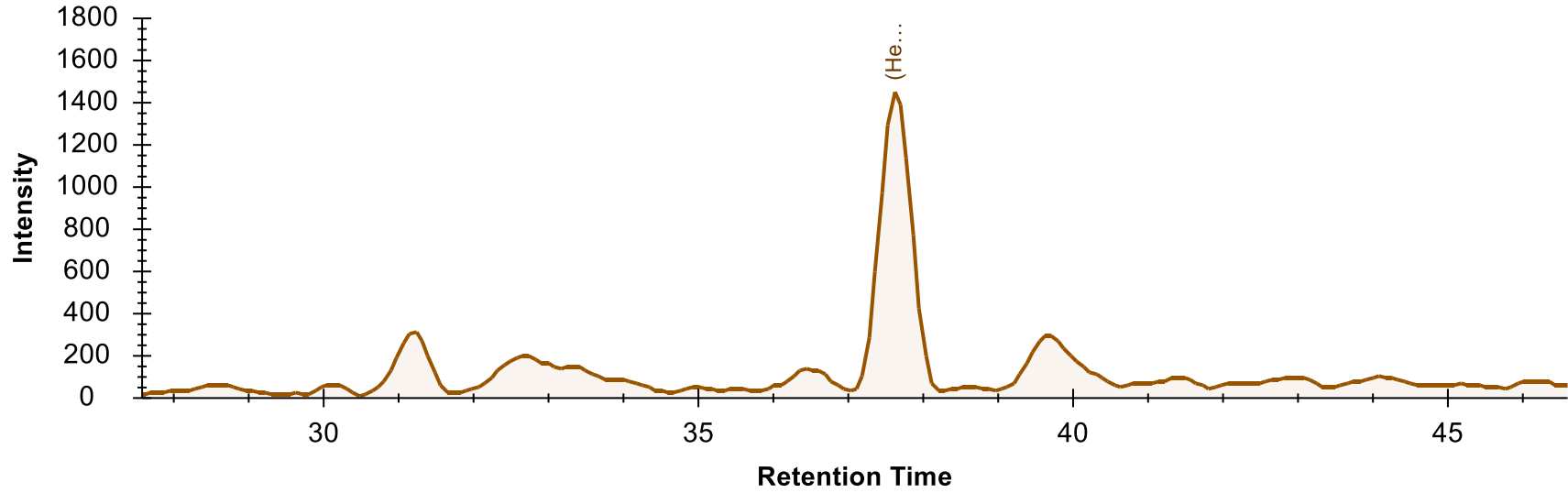
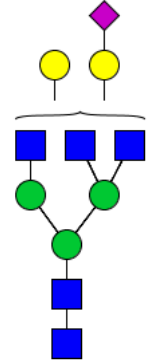
61c



(Hex)<sub>2</sub> (HexNAc)<sub>3</sub> (NeuAc)<sub>2</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

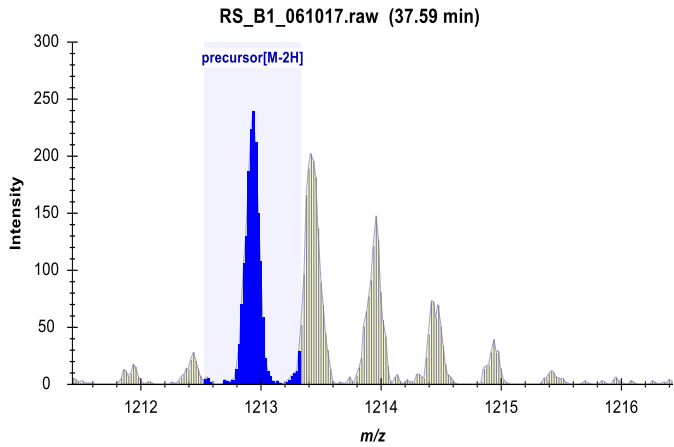
No GlytouCan ID

[M-2H]<sup>-</sup> 1212.93

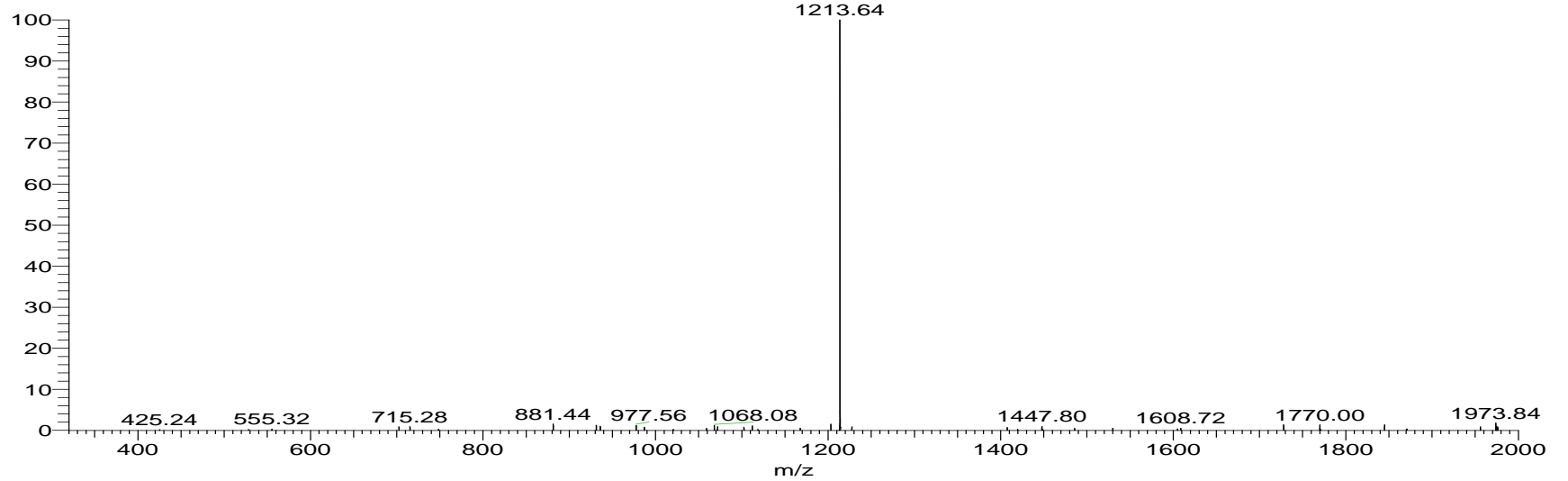


CID-MS/MS ( $m/z$  1212.93<sup>2-</sup>)

RS\_B1\_061017 #2801 RT: 37.65 AV: 1 NL: 2.18E2  
T: ITMS - p ESI E d w Full ms2 1212.93@cid



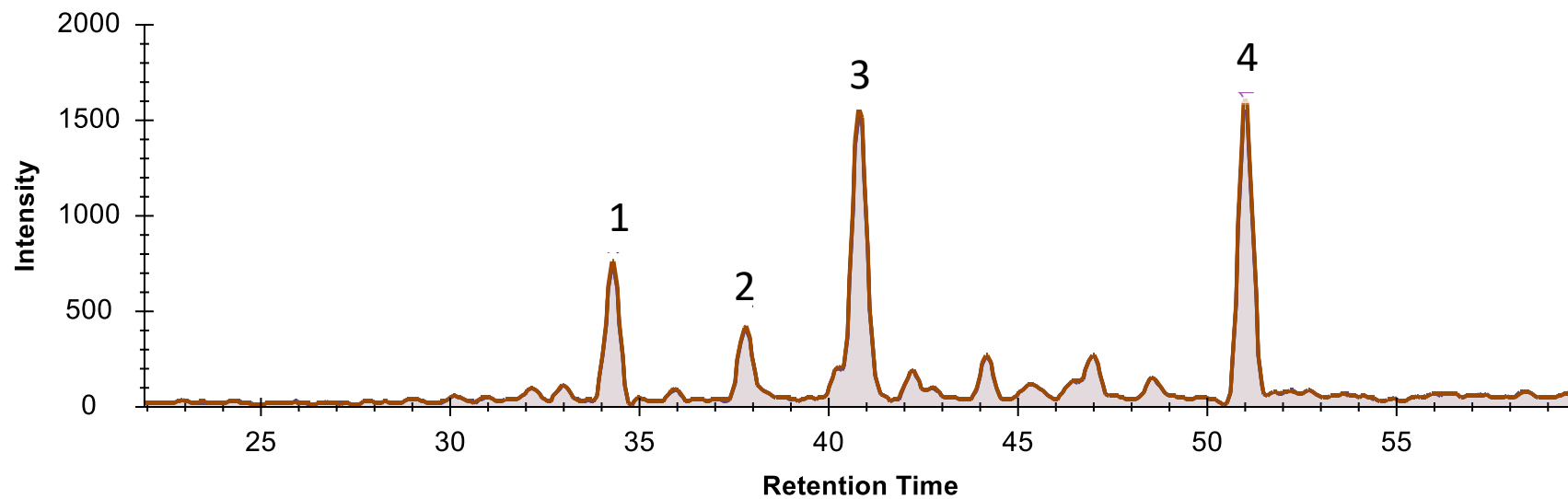
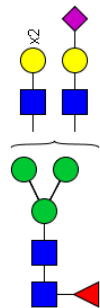
Glycan ID: 62



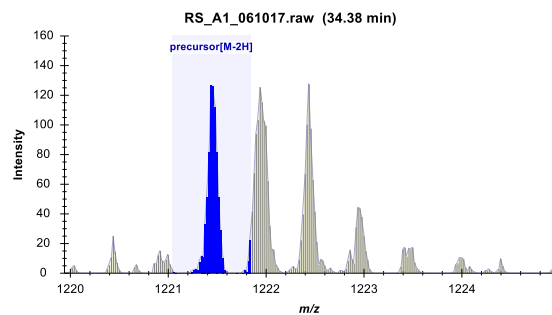
(Hex)3 (HexNAc)3 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

Glytocal ID: G13441RZ

[M-2H] 1221.44

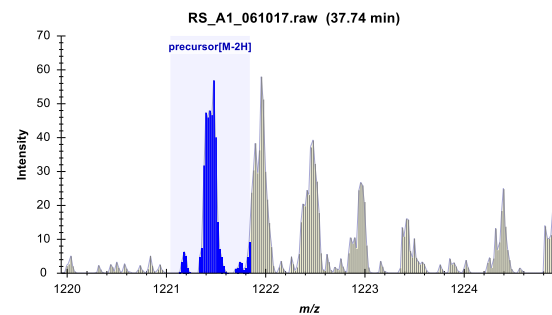


1



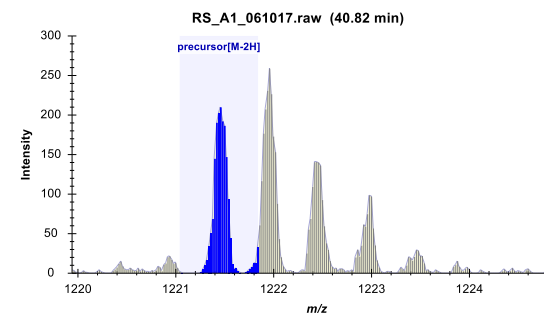
63a

2



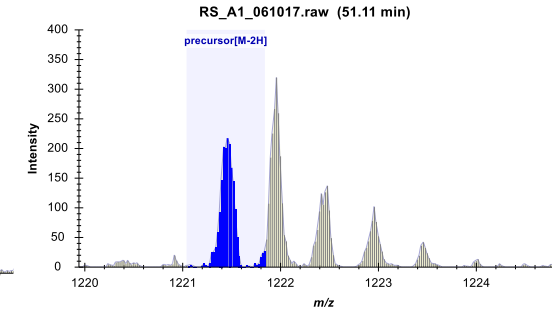
63b

3



63c

4



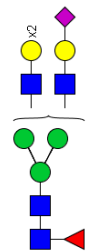
63d

GlytouCan ID: G13441RZ

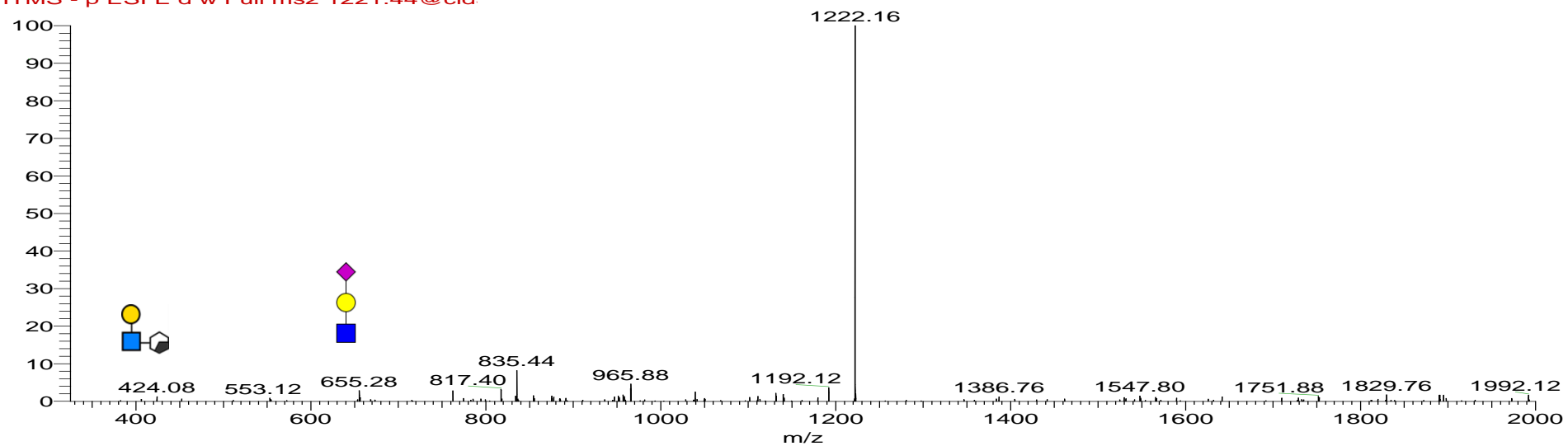
### CID-MS/MS

( $m/z$  1221.44  $^{1-}$ )

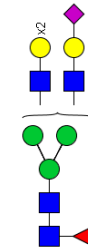
63a



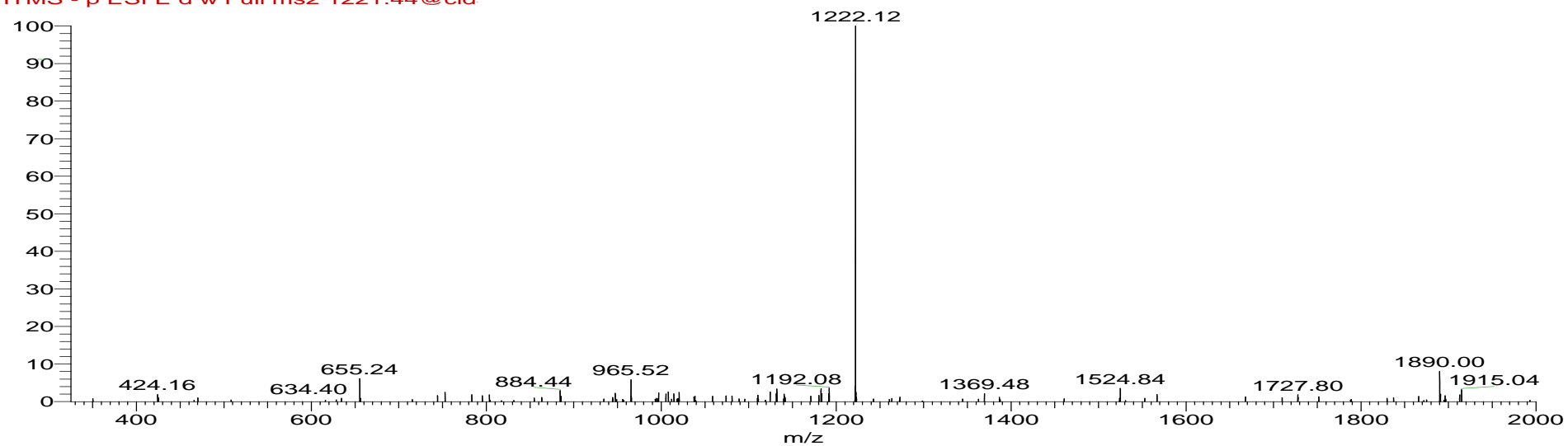
rs\_b1\_061017 #2535 RT: 33.90 AV: 1 NL: 2.93E2  
F: ITMS - p ESI E d w Full ms2 1221.44@cid



63b



rs\_b1\_061017 #2784 RT: 37.42 AV: 1 NL: 1.71E2  
F: ITMS - p ESI E d w Full ms2 1221.44@cid

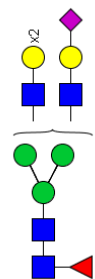


GlytouCan ID: G13441RZ

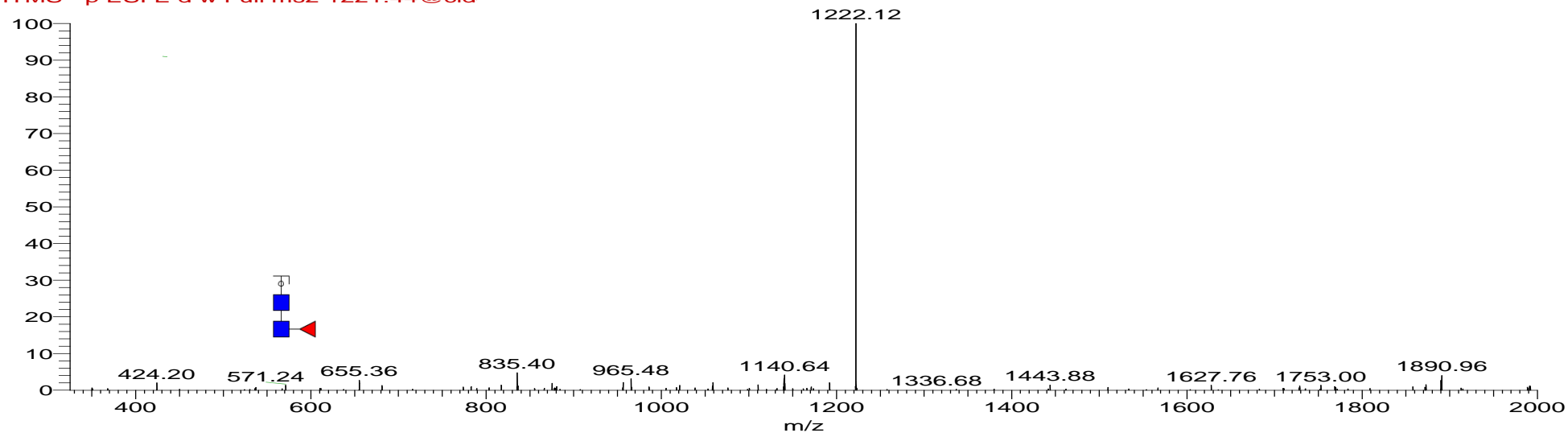
CID-MS/MS

( $m/z$  1221.44<sup>1-</sup>)

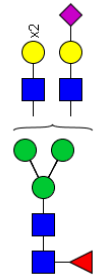
63c



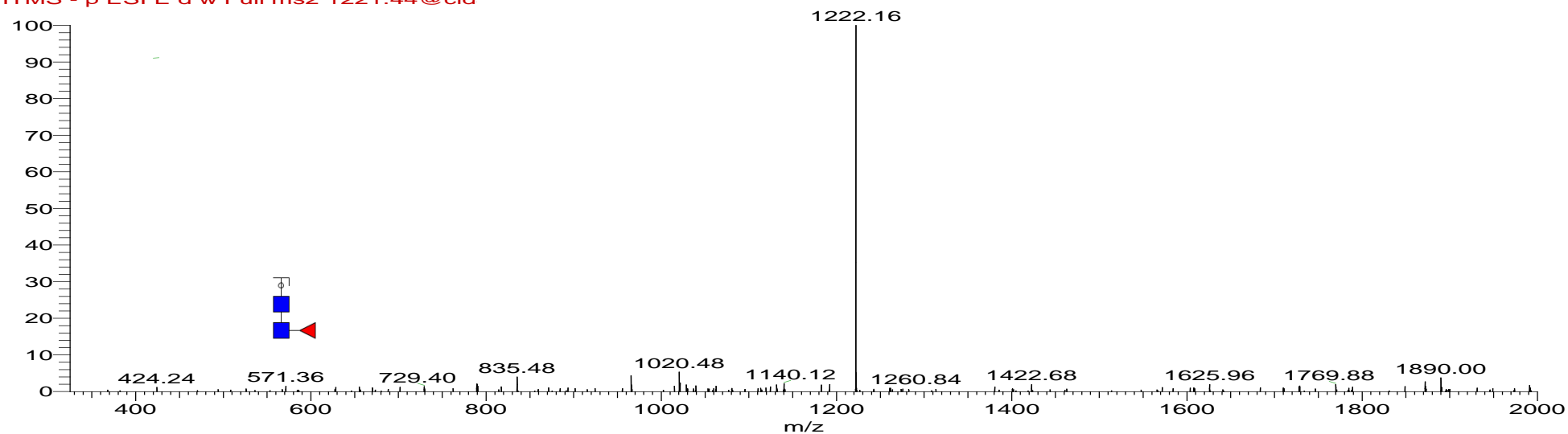
rs\_b1\_061017 #3006 RT: 40.55 AV: 1 NL: 2.60E2  
F: ITMS - p ESI E d w Full ms2 1221.44@cid



63d

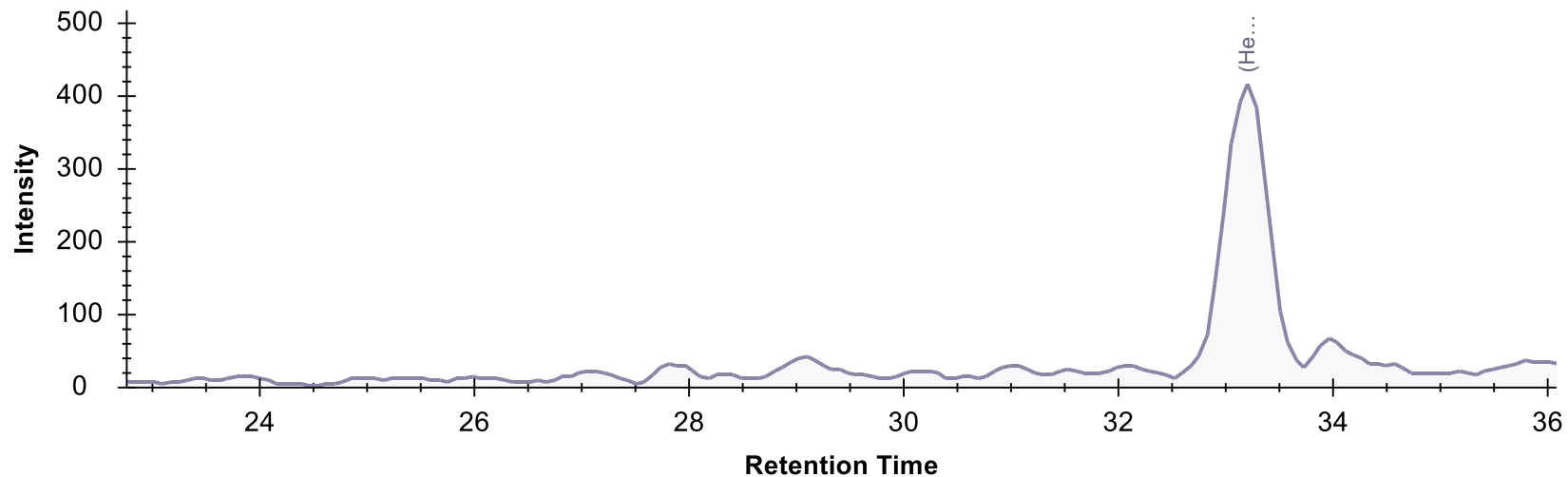
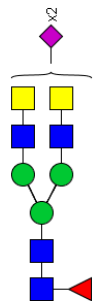


rs\_b1\_061017 #3728 RT: 50.52 AV: 1 NL: 2.40E2  
F: ITMS - p ESI E d w Full ms2 1221.44@cid



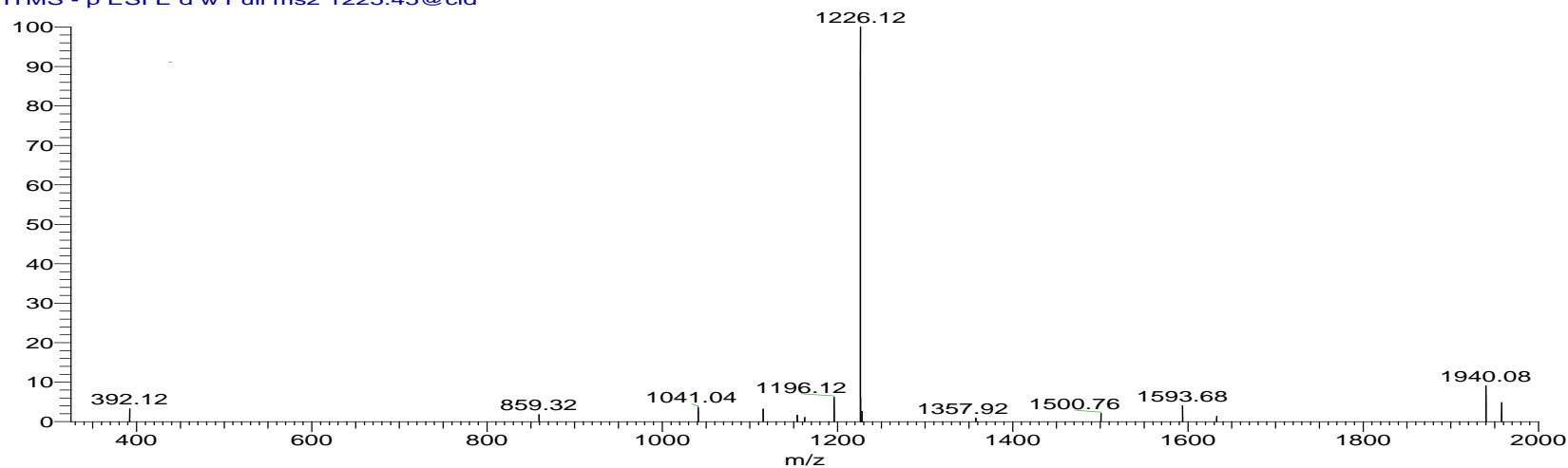
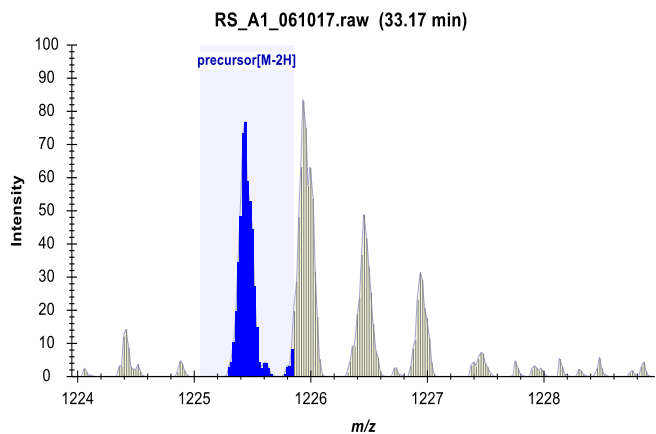
(HexNAc)4 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)2

[M-2H] 1225.45



CID-MS/MS ( $m/z$  1225.45<sup>2-</sup>)

RS\_A1\_061017 #2502 RT: 33.16 AV: 1 NL: 5.40E1  
T: ITMS - p ESI E d w Full ms2 1225.45@cid



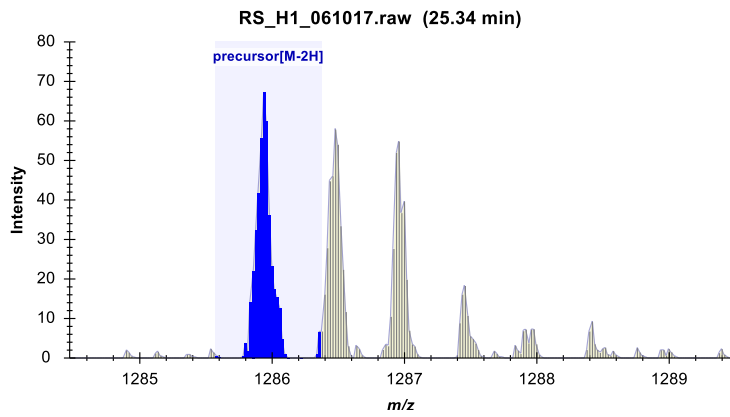
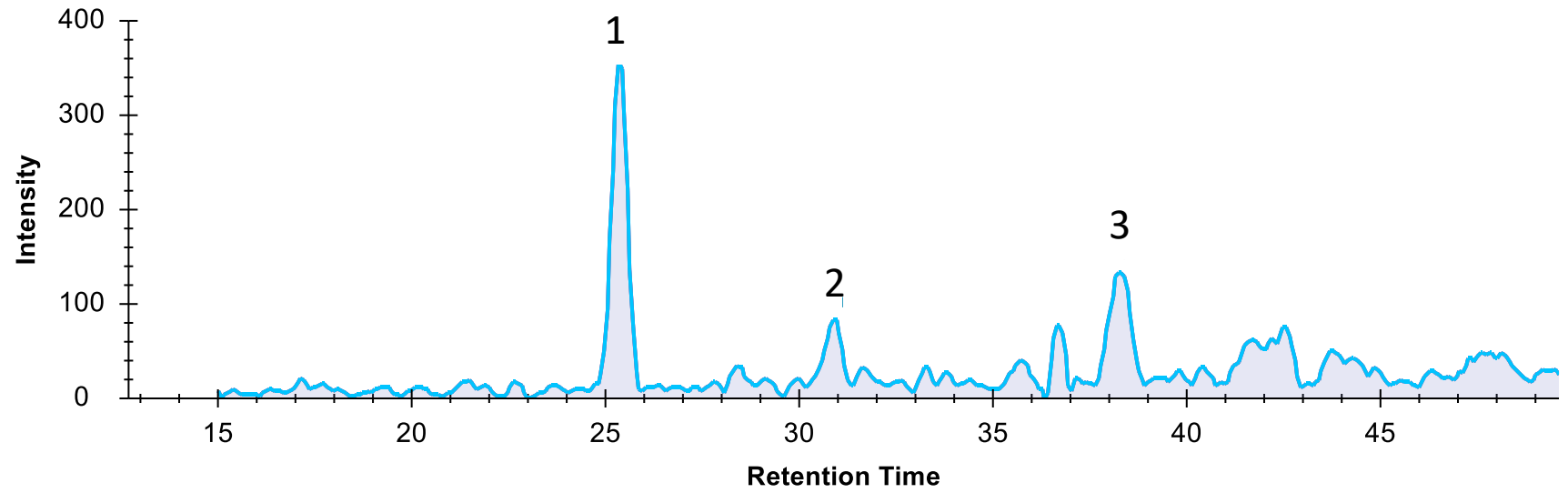
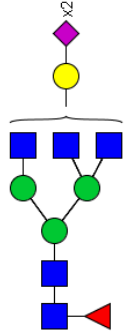
Glycan ID: 64



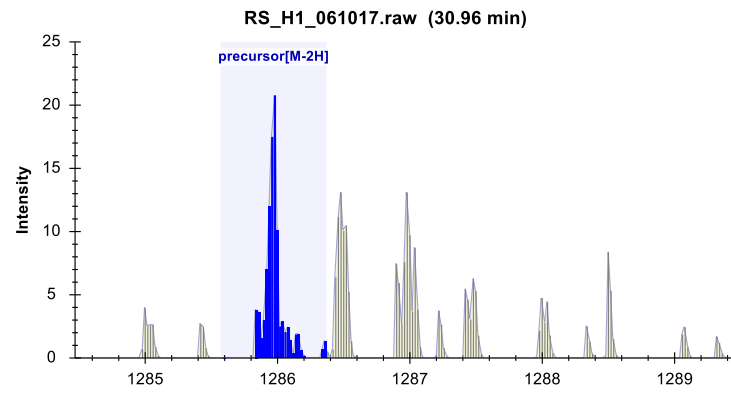
(Hex)2 (HexNAc)3 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)2

GlytouCan ID: G79553XF

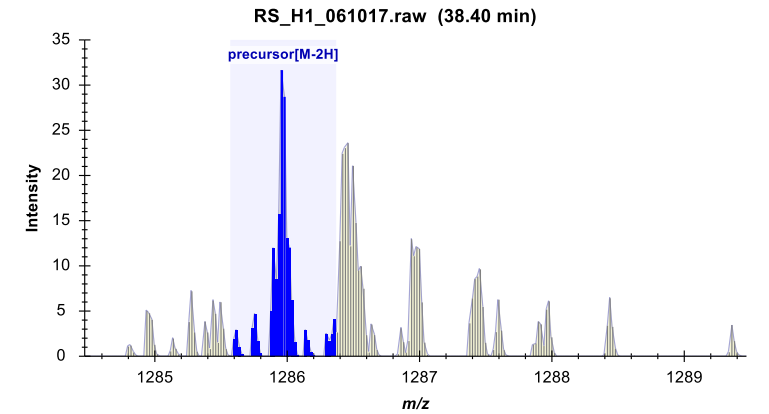
[M-2H] 1285.97



65a



65b



65c

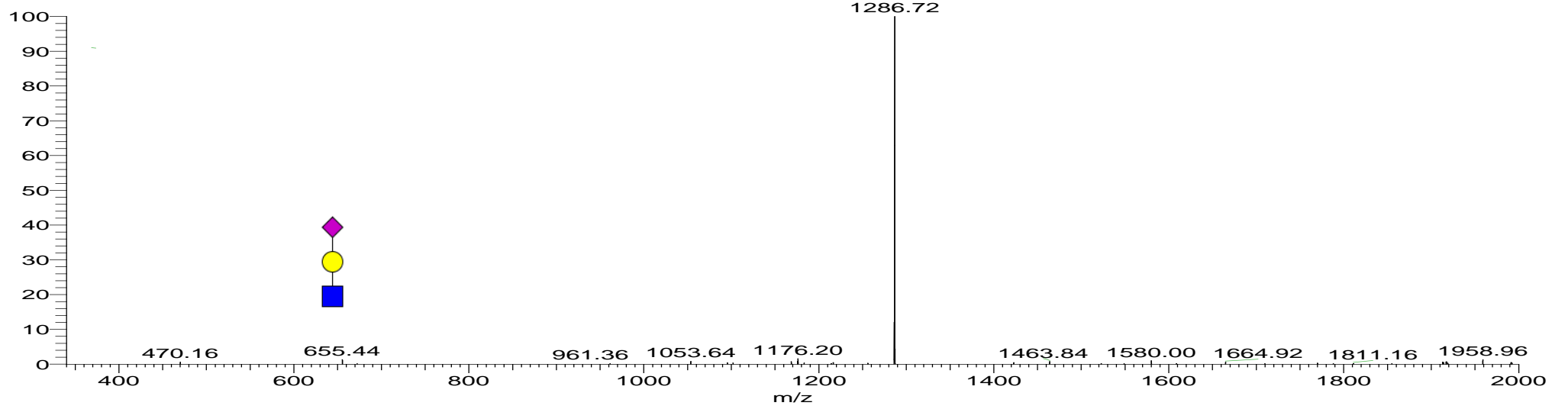
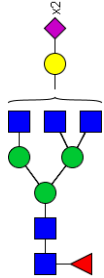
GlytouCan ID: G79553XF

CID-MS/MS

( $m/z$  1285.97<sup>2-</sup>)

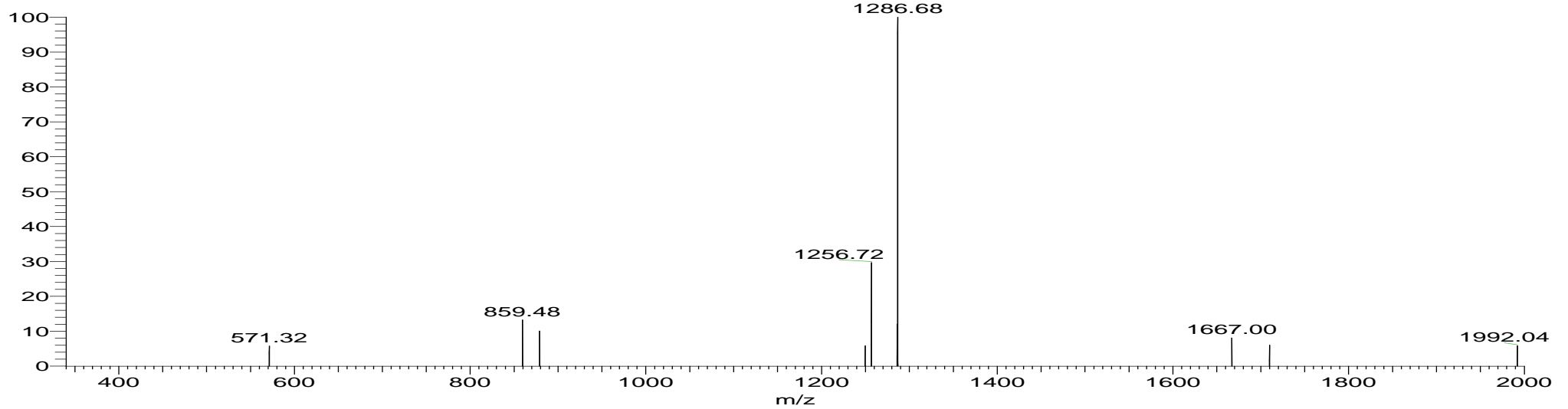
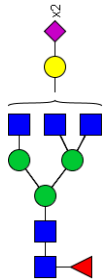
RS\_C1\_061017 #1922 RT: 25.27 AV: 1 NL: 3.29E2  
T: ITMS - p ESI E d w Full ms2 1285.97@cid

65a



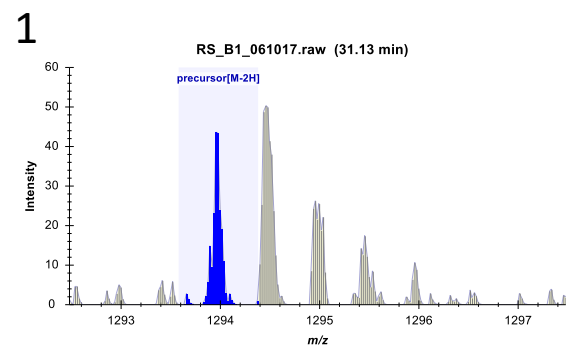
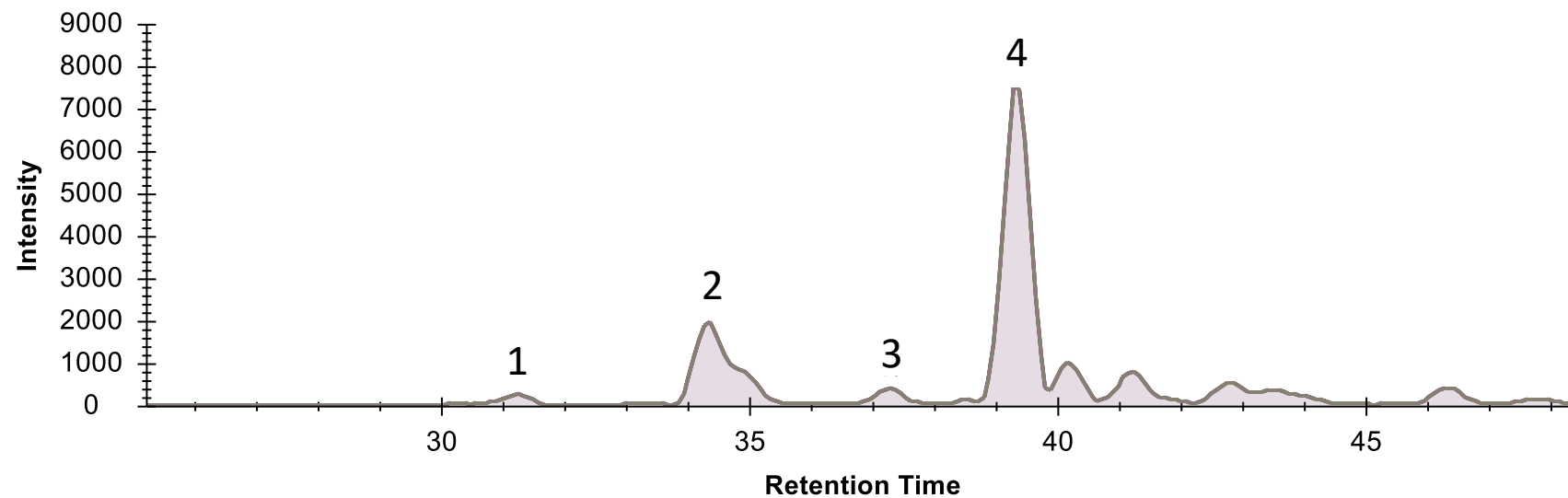
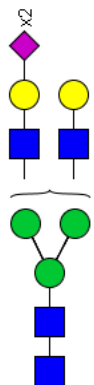
rs\_d1\_061017 #2909 RT: 38.50 AV: 1 NL: 2.02E1  
F: ITMS - p ESI E d w Full ms2 1285.96@cid

65c

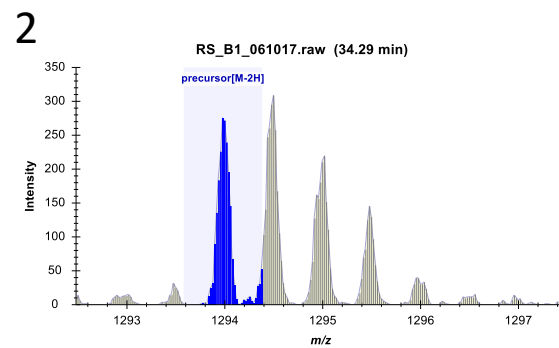


(Hex)3 (HexNAc)3 (NeuAc)2 + (Man)3(GlcNAc)2  
GlytouCan: G57551SM

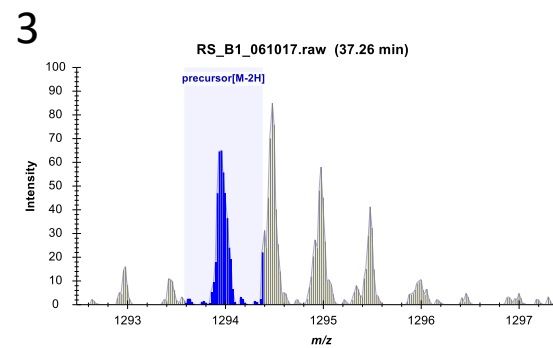
[M-2H] 1293.98



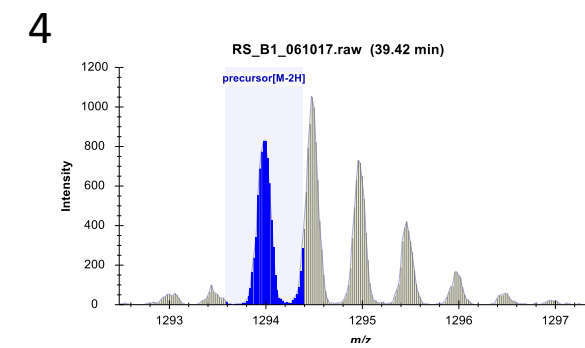
66a



66b



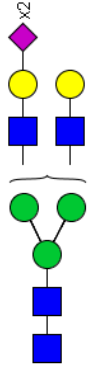
66c



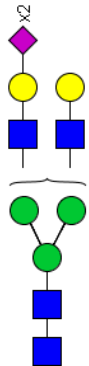
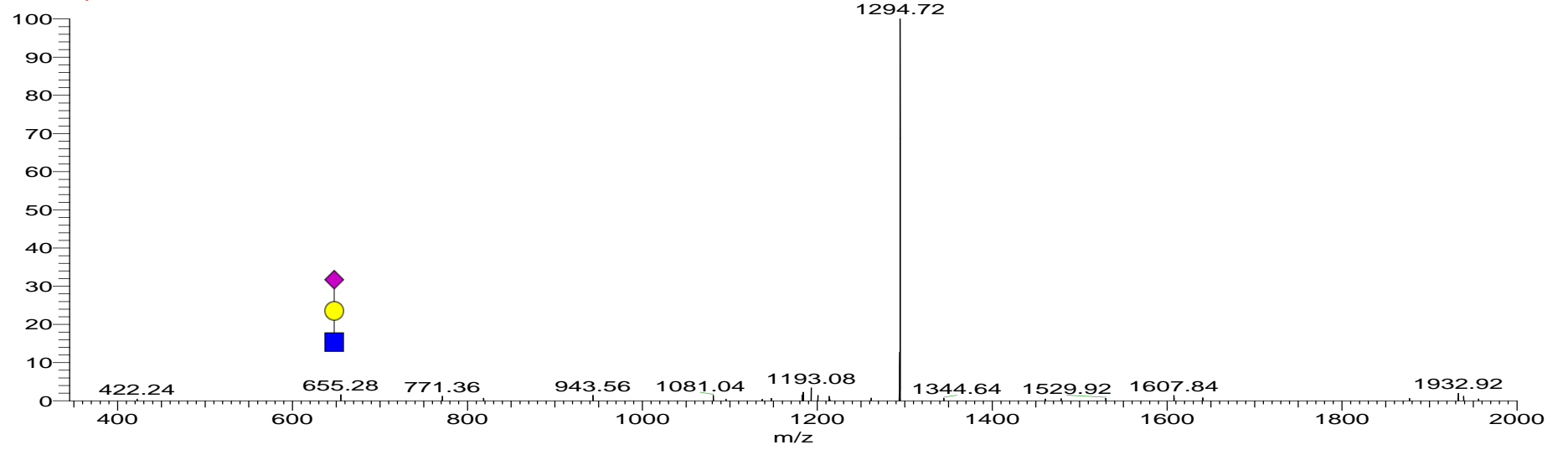
66d

CID-MS/MS

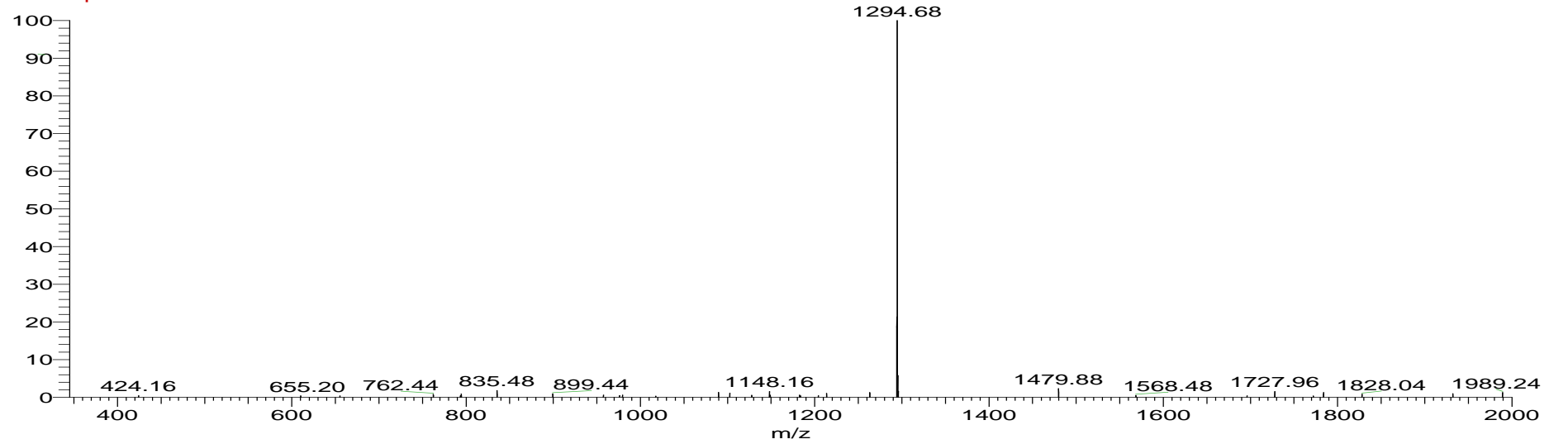
( $m/z$  1294.00  $^{2-}$ )



rs\_d3\_061017 #2493 RT: 32.86 AV: 1 NL: 1.15E2  
F: ITMS - p ESI E d w Full ms2 1294.00@cid



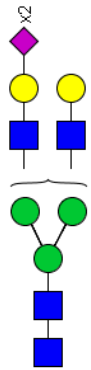
rs\_d3\_061017 #2921 RT: 39.09 AV: 1 NL: 1.91E2  
F: ITMS - p ESI E d w Full ms2 1294.00@cid



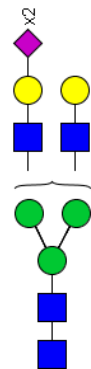
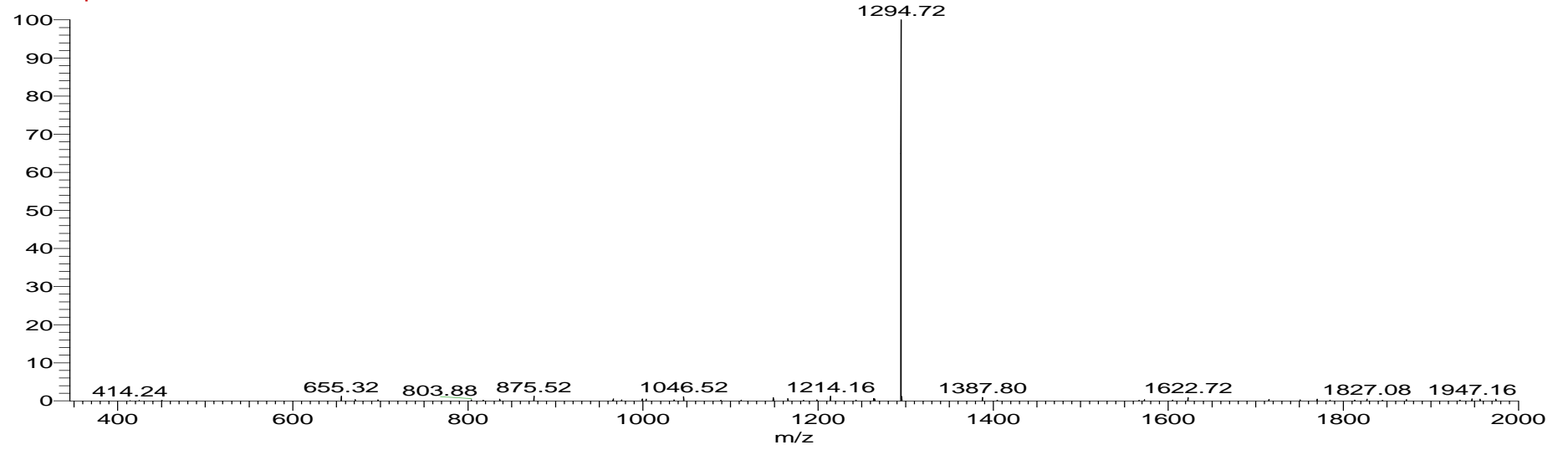
GlytouCan: G57551SM

CID-MS/MS

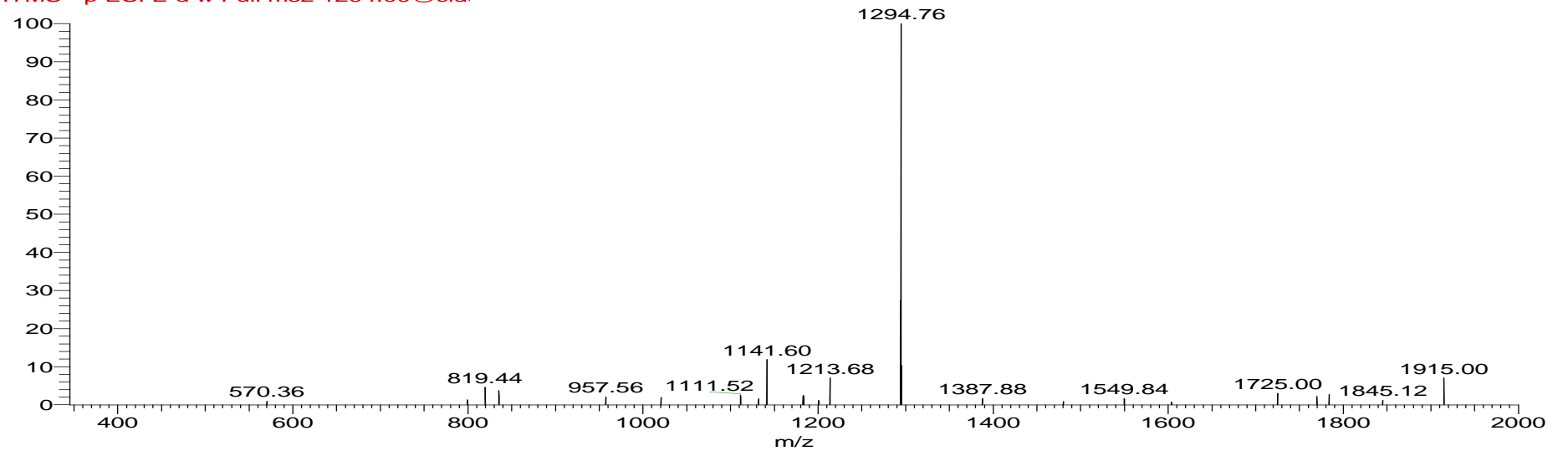
( $m/z$  1294.00  $2^-$ )



RS\_D3\_061017 #3119 RT: 41.86 AV: 1 NL: 3.75E2  
F: ITMS - p ESI E d w Full ms2 1294.00@cid:



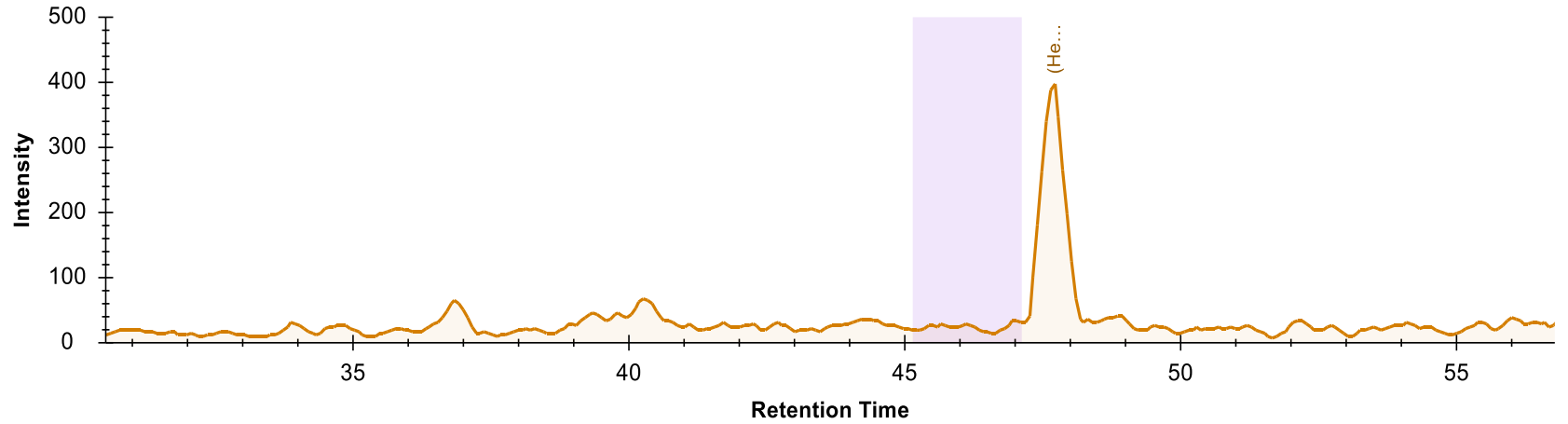
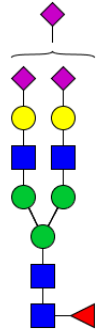
RS\_D3\_061017 #2727 RT: 36.30 AV: 1 NL: 5.07E1  
F: ITMS - p ESI E d w Full ms2 1294.00@cid:



(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuAc)3 + (Man)3(GlcNAc)2

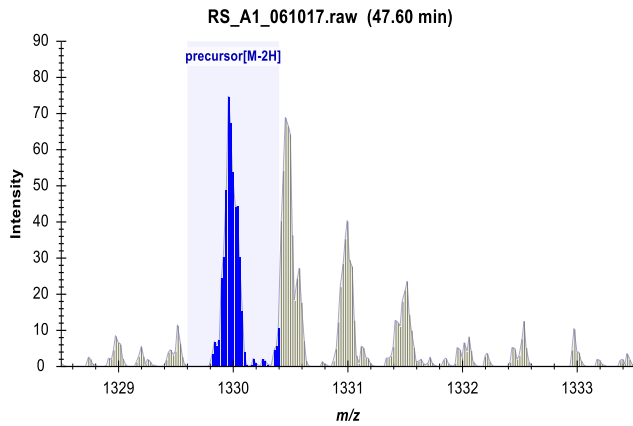
No Glytougan ID

[M-2H] 1330

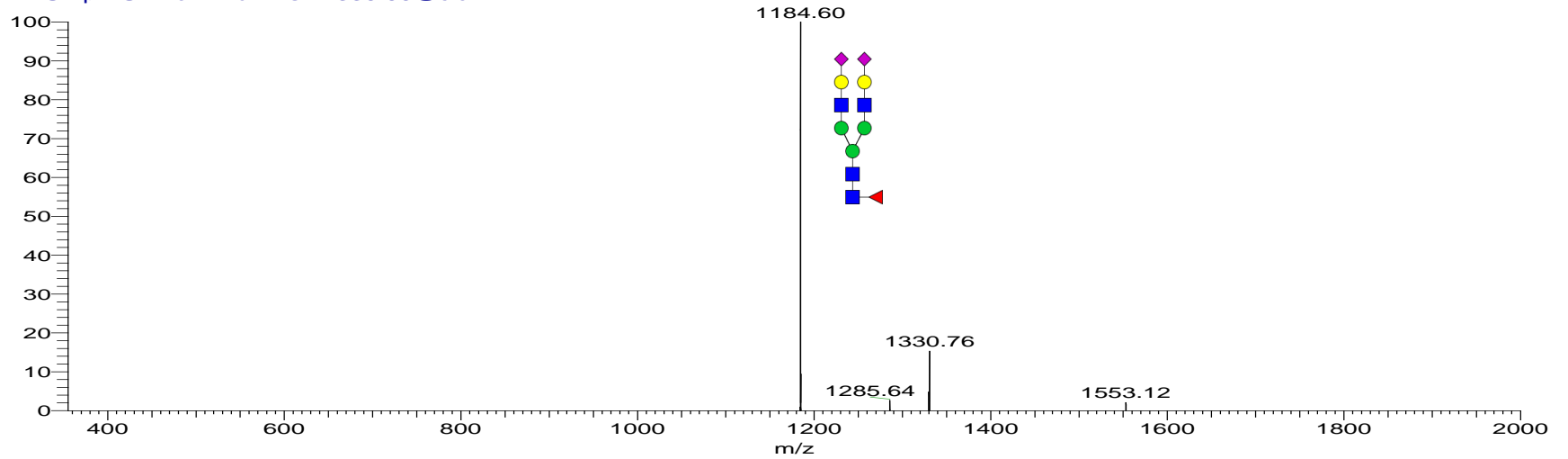


### CID-MS/MS ( $m/z$ 1330<sup>2-</sup>)

RS\_A1\_061017 #3575 RT: 47.67 AV: 1 NL: 5.99E1  
T: ITMS - p ESI E d w Full ms2 1330.00@cid



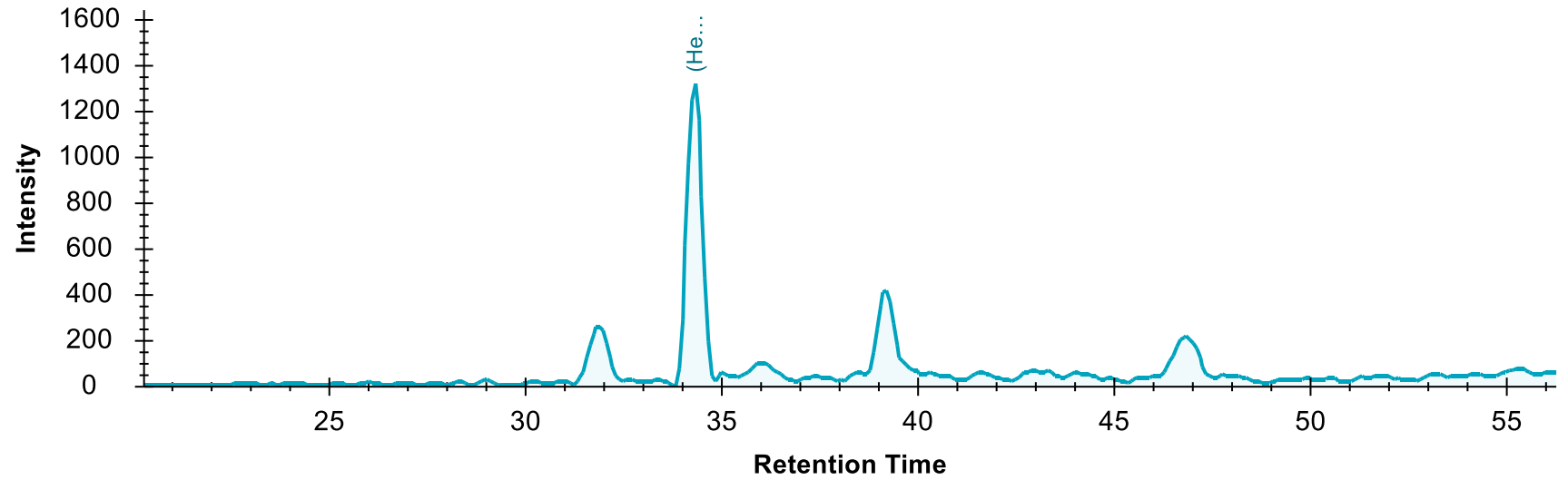
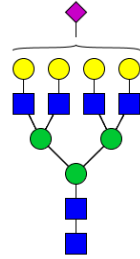
Glycan ID: 67



(Hex)4 (HexNAc)4 (NeuAc)1 + (Man)3(GlcNAc)2

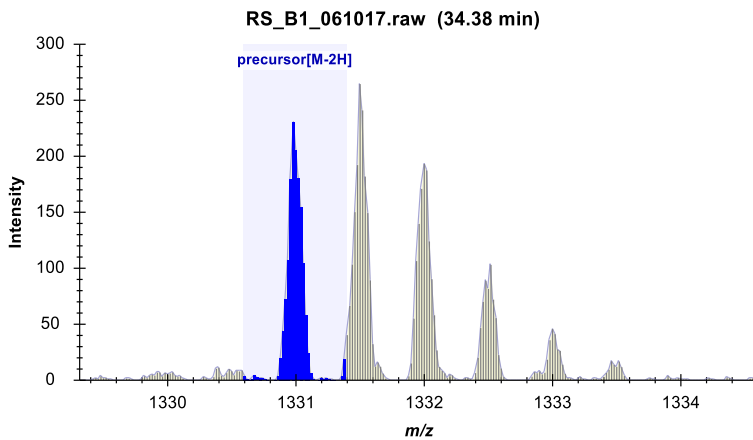
Glytougan ID: G93952RU

[M-2H] 1330.99

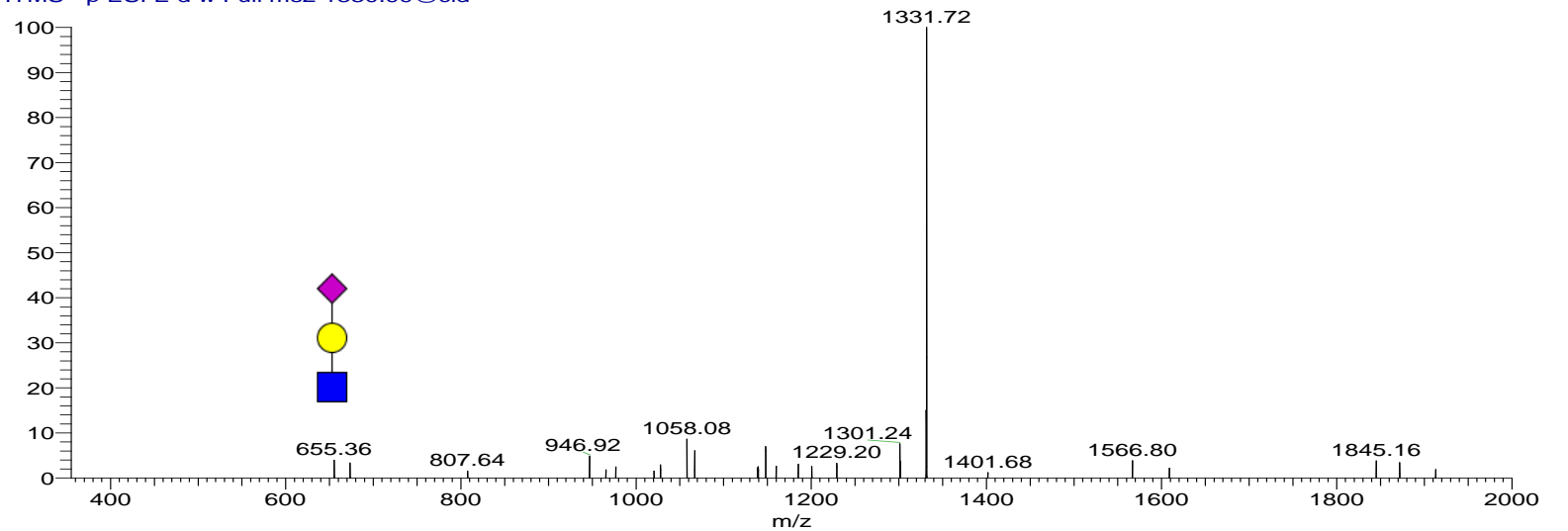


CID-MS/MS ( $m/z$  1330.99<sup>3-</sup>)

RS\_A1\_061017 #2608 RT: 34.69 AV: 1 NL: 6.74E1  
T: ITMS - p ESI E d w Full ms2 1330.99@cid



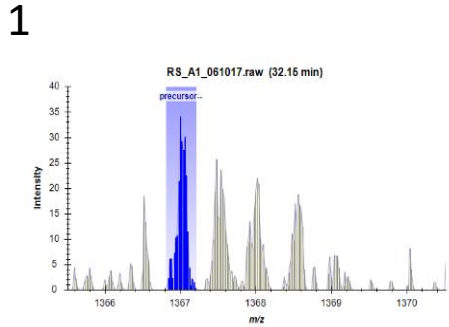
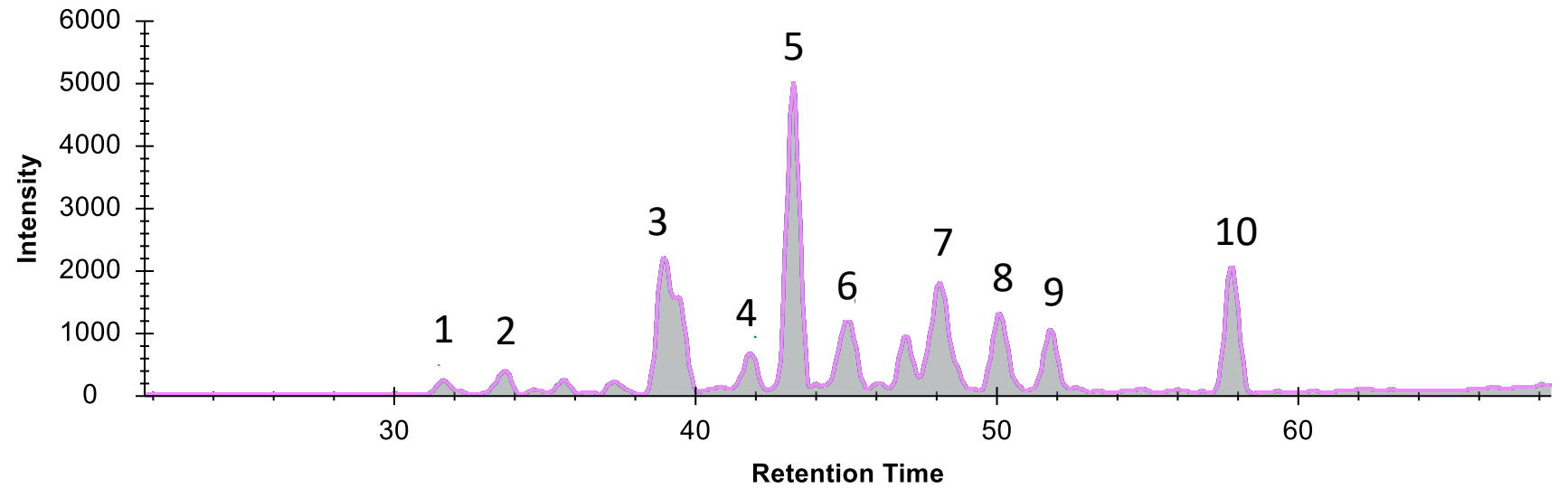
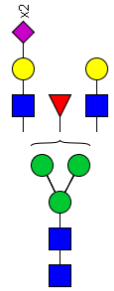
Glycan ID: 68



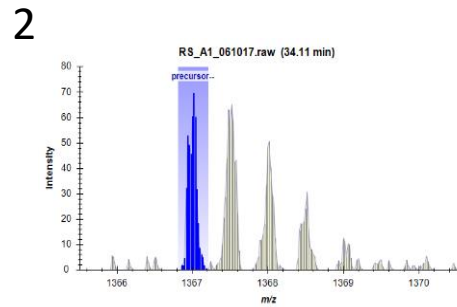
(Hex)3 (HexNAc)3 (Deoxyhexose)1 (NeuAc)2 +  
(Man)3(GlcNAc)2

GlytouCan ID: G04256WF

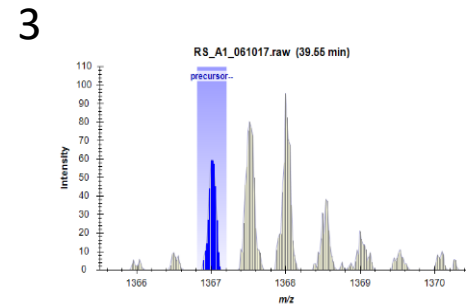
[M-2H]<sup>-</sup> 1367.01



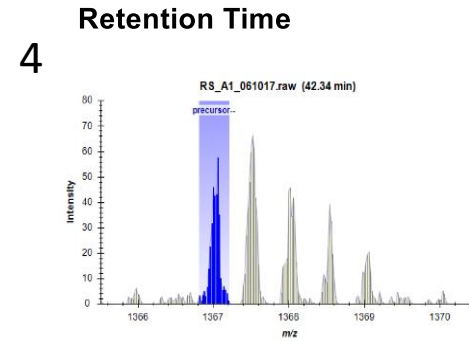
69a



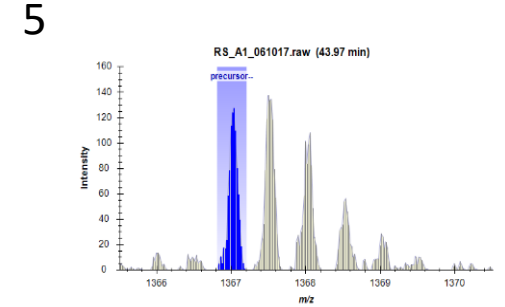
69b



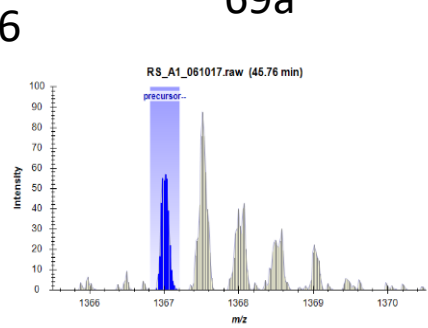
69c



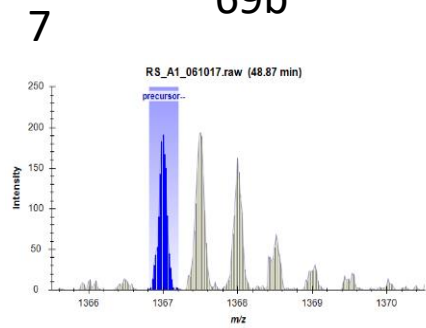
69d



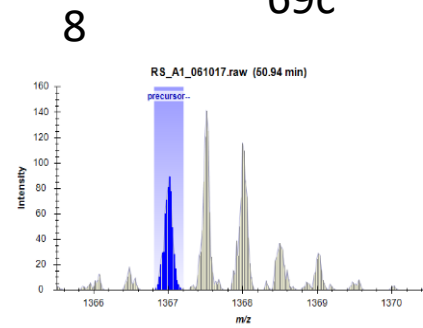
69e



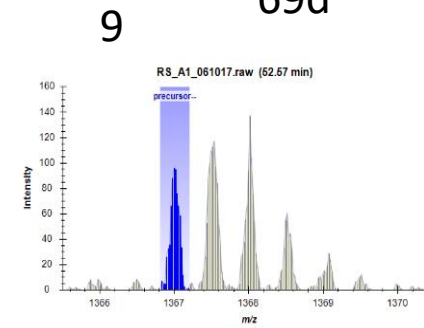
69f



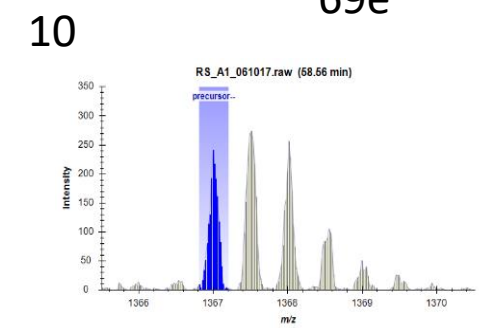
69g



69h



69i



69j

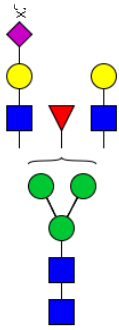


GlytouCan ID: G04256WF

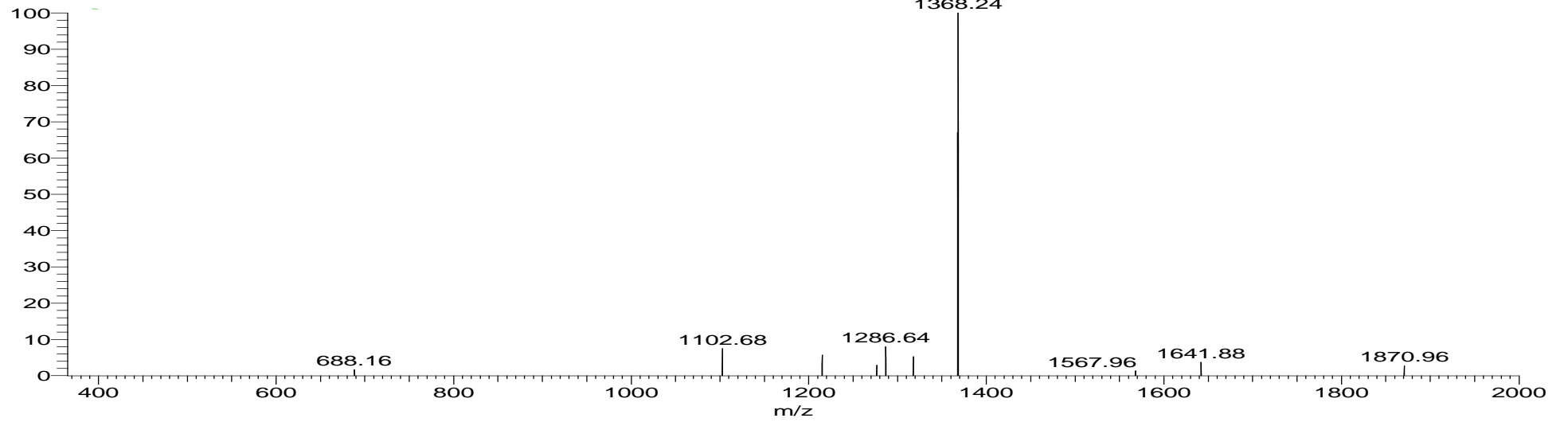
CID-MS/MS

( $m/z$  1367.52  $^{2-}$ )

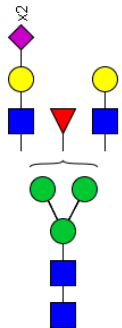
69a



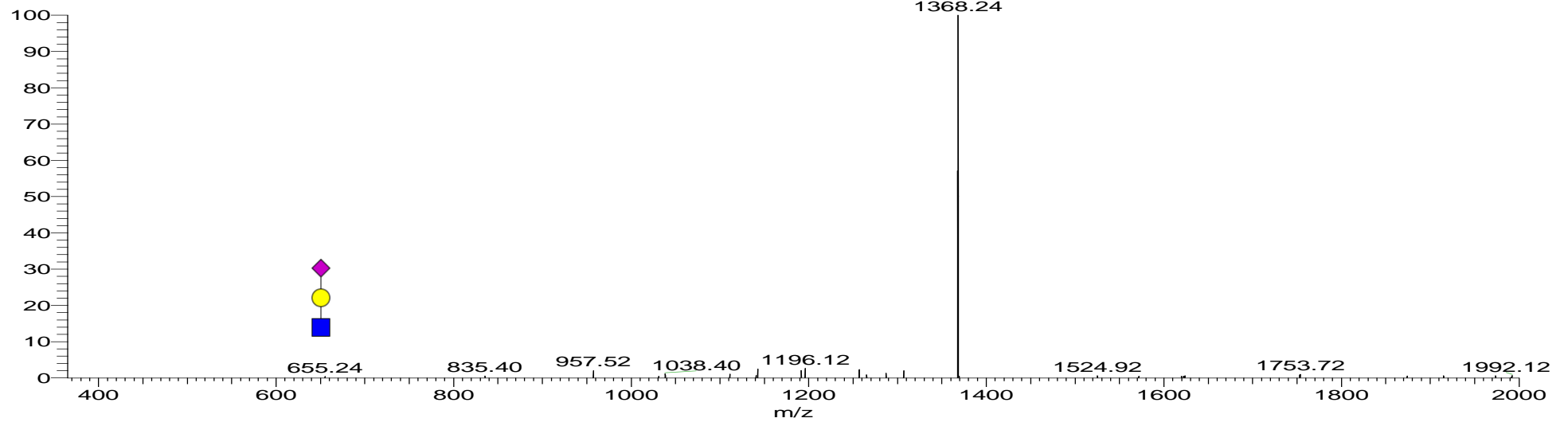
RS\_C3\_061017 #2526 RT: 33.58 AV: 1 NL: 3.45E1  
F: ITMS - p ESI E d w Full ms2 1367.52@cid:



69b



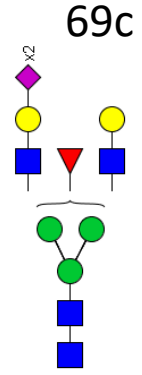
RS\_C3\_061017 #2637 RT: 35.22 AV: 1 NL: 1.73E2  
F: ITMS - p ESI E d w Full ms2 1367.52@cid:



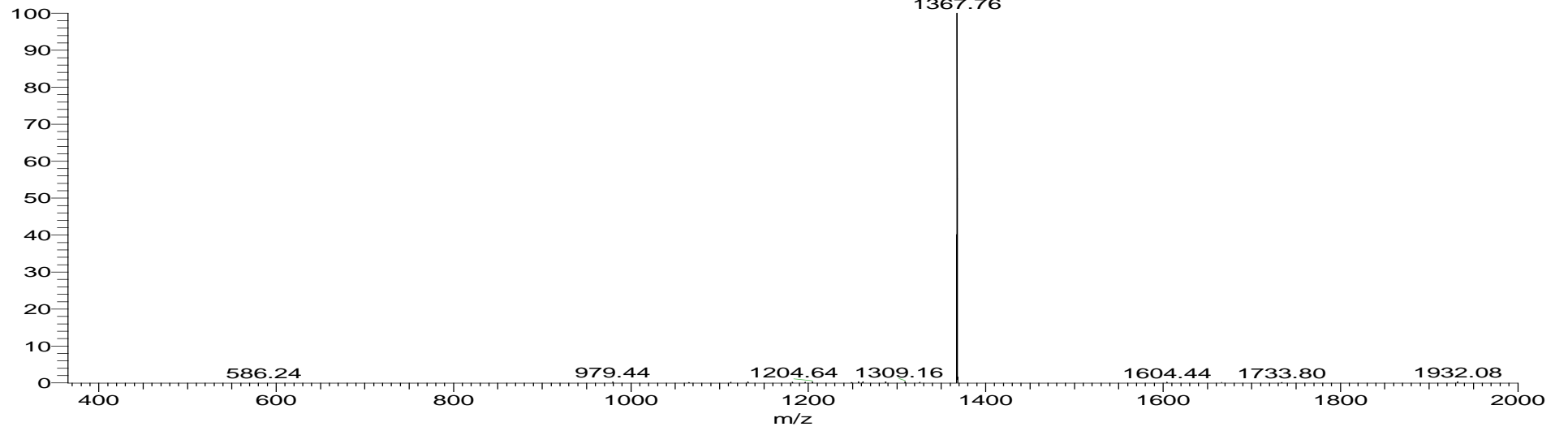
GlytouCan ID: G04256WF

CID-MS/MS

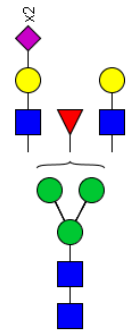
( $m/z$  1367.52  $^{2-}$ )



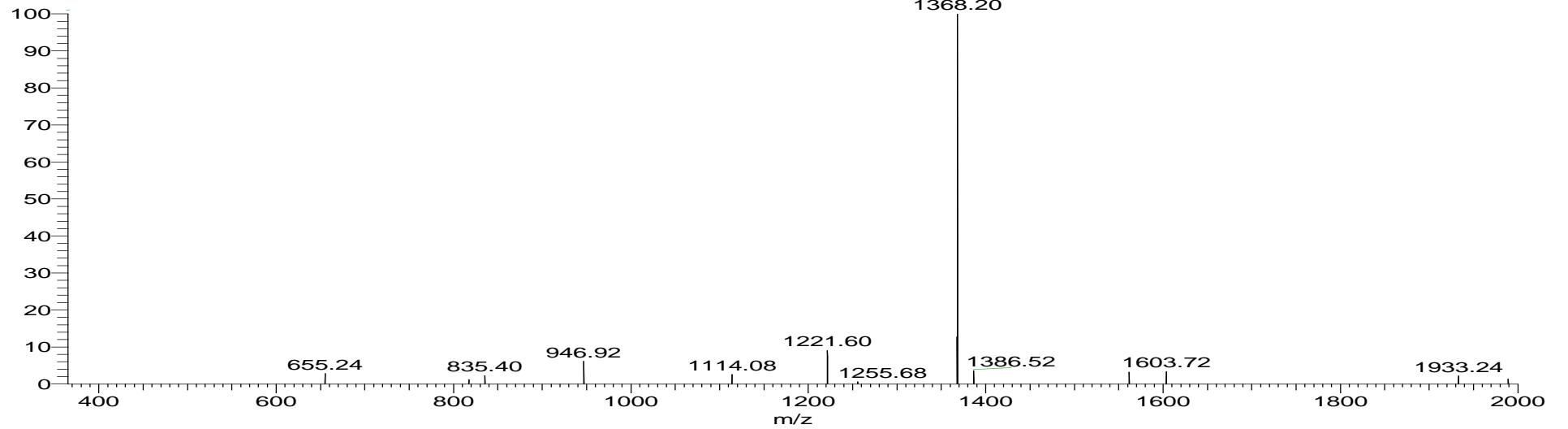
RS\_B1\_061017 #2903 RT: 39.06 AV: 1 NL: 6.05E2  
F: ITMS - p ESI E d w Full ms2 1367.00@cid:



69d



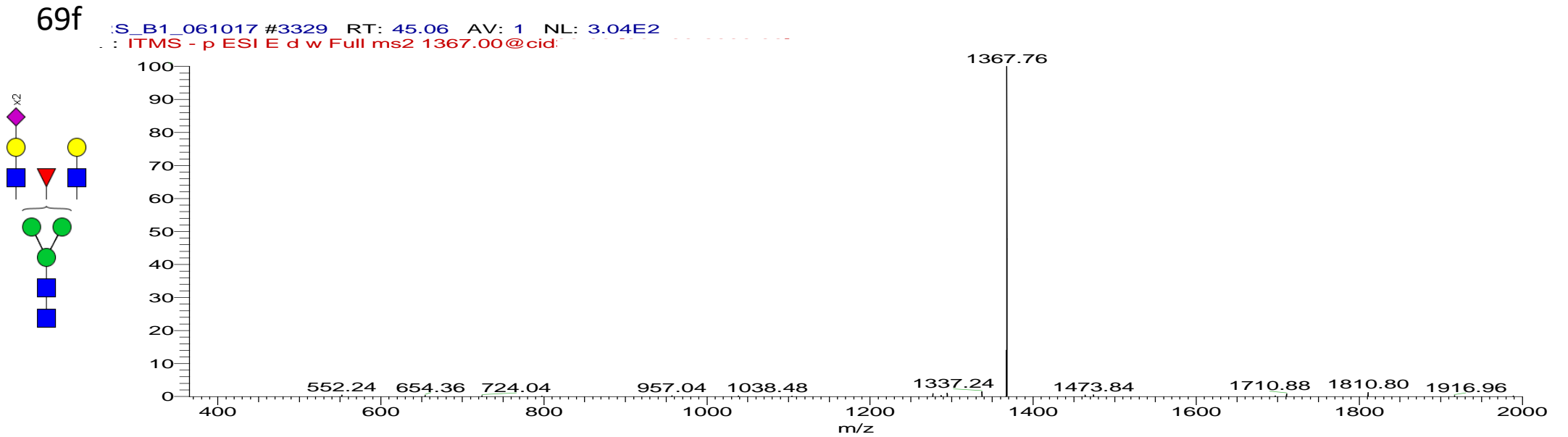
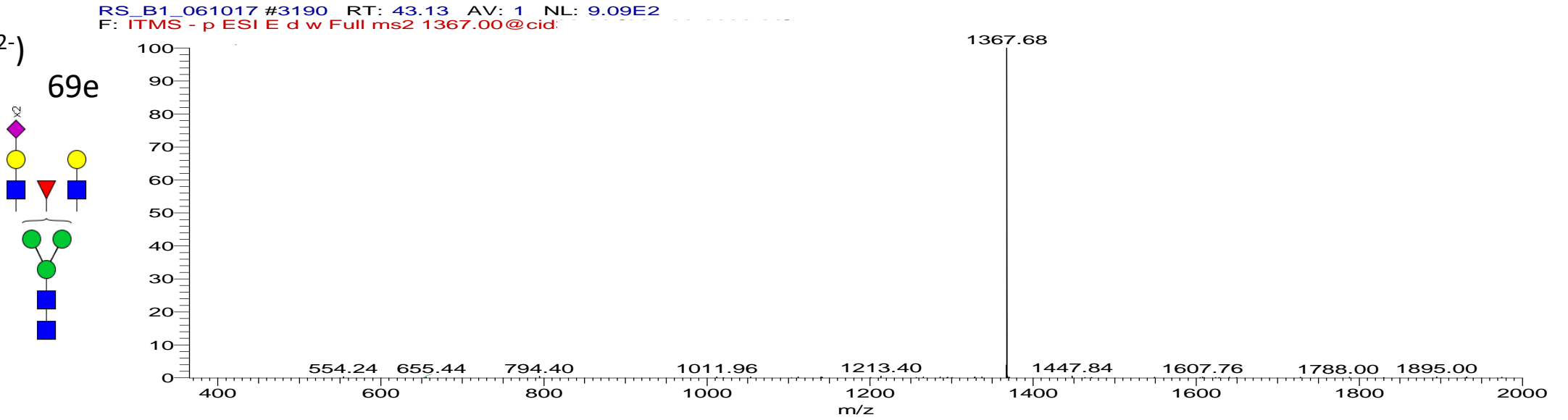
rs\_c1\_061017 #3089 RT: 41.74 AV: 1 NL: 5.84E1  
F: ITMS - p ESI E d w Full ms2 1367.49@cid:



GlytouCan ID: G04256WF

CID-MS/MS

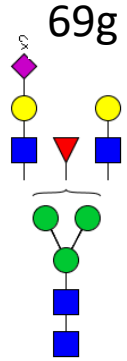
( $m/z$  1367.52  $^{2-}$ )



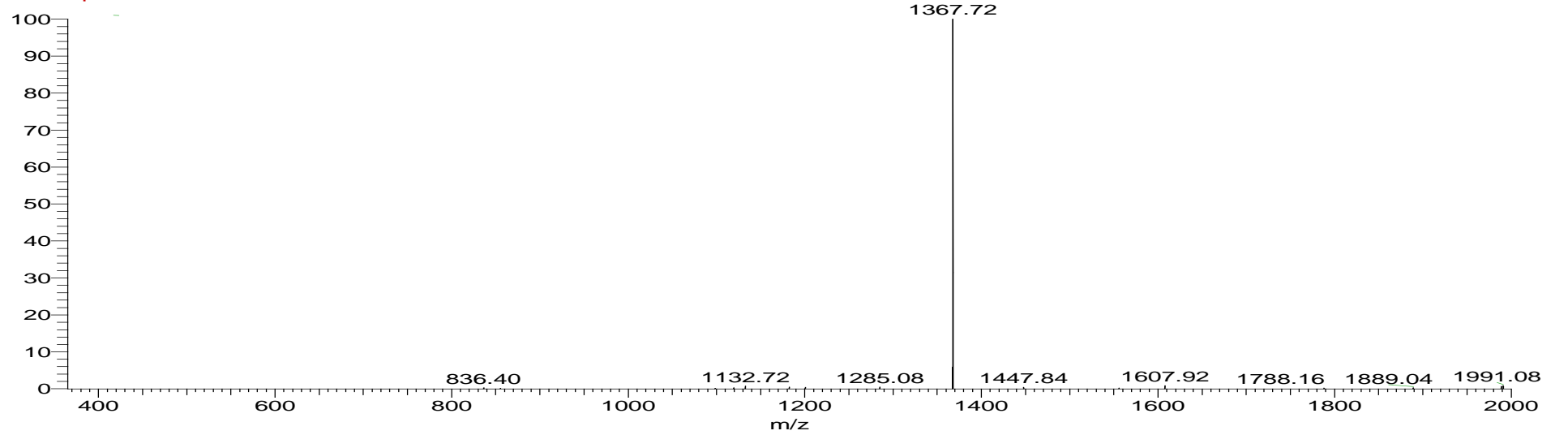
GlytouCan ID: G04256WF

CID-MS/MS

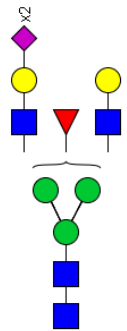
( $m/z$  1367.52  $^{2-}$ )



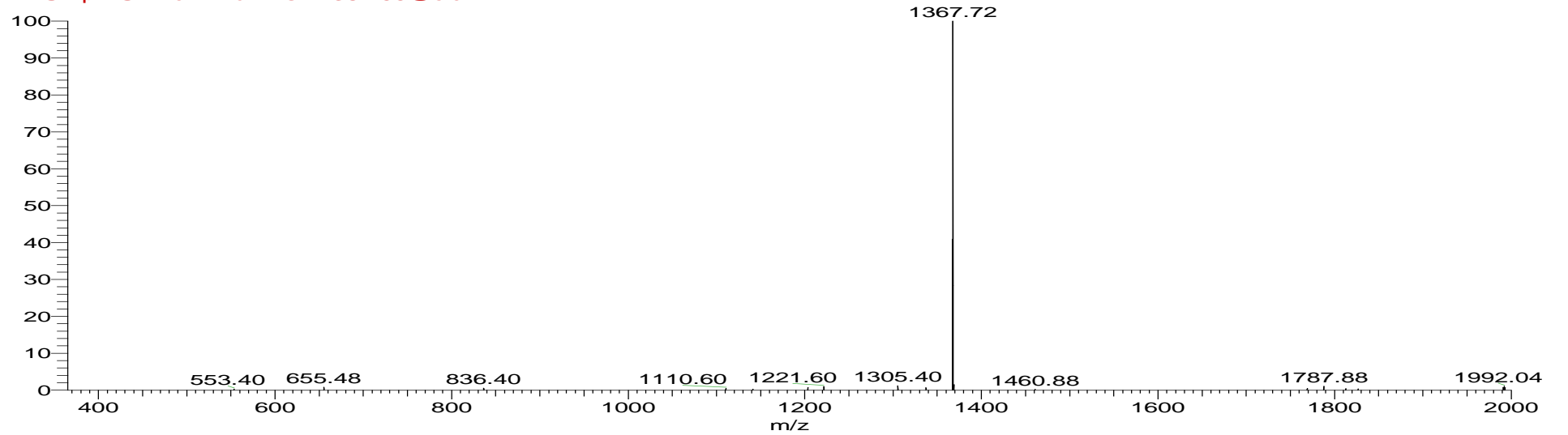
rs\_a1\_061017 #3678 RT: 49.04 AV: 1 NL: 2.75E2  
F: ITMS - p ESI E d w Full ms2 1367.00@cid:



69h



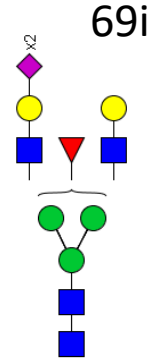
rs\_a1\_061017 #3819 RT: 50.91 AV: 1 NL: 2.28E2  
F: ITMS - p ESI E d w Full ms2 1367.00@cid:



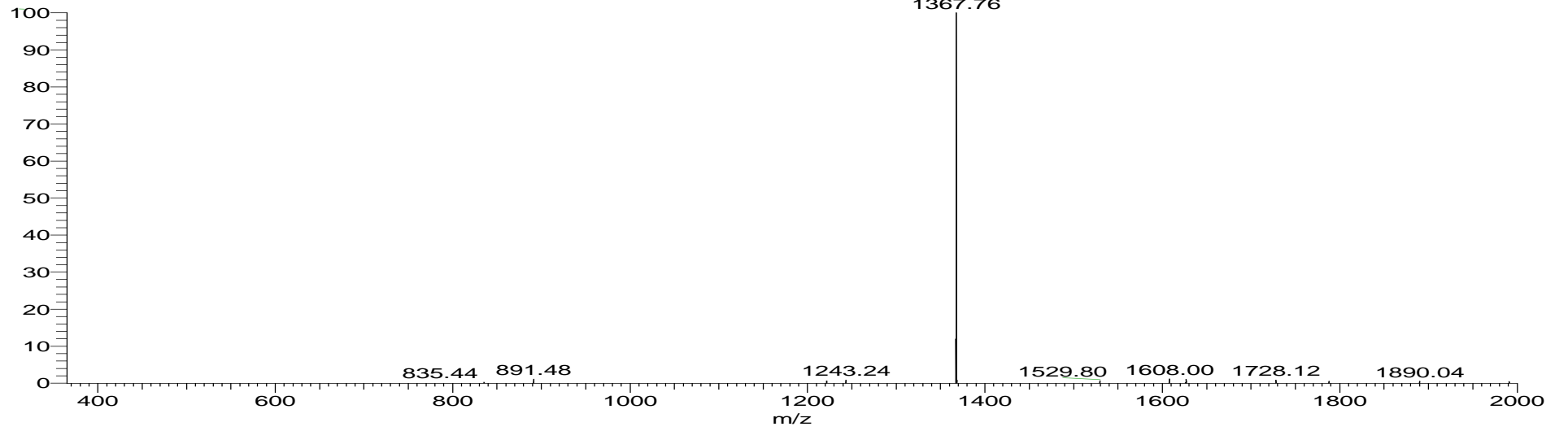
GlytouCan ID: G04256WF

CID-MS/MS

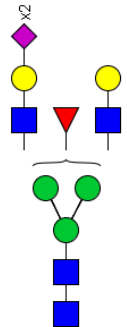
( $m/z$  1367.52  $^{2-}$ )



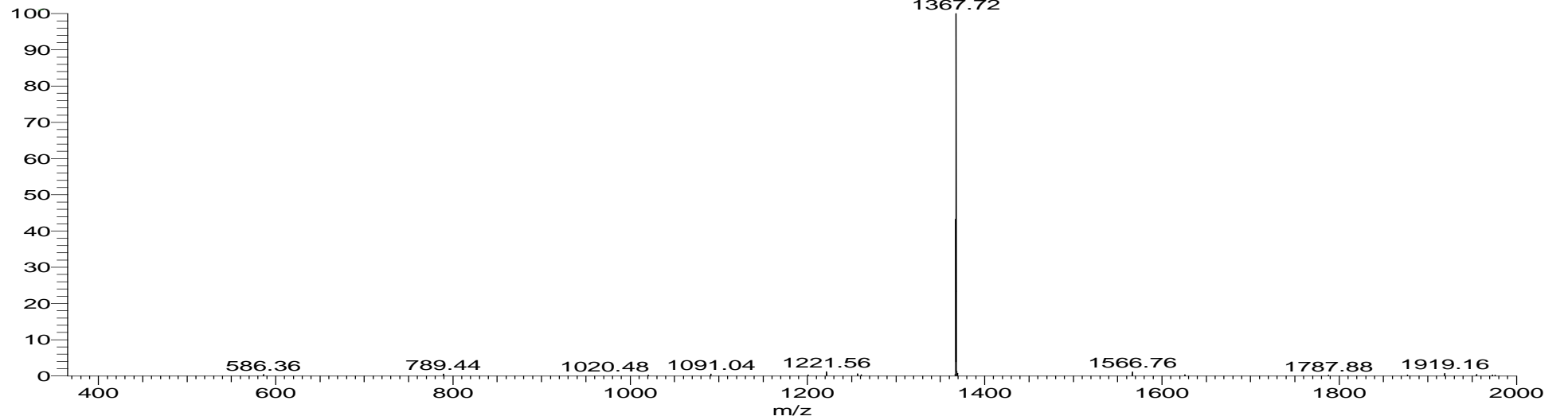
rs\_a1\_061017 #3941 RT: 52.55 AV: 1 NL: 2.11E2  
F: ITMS - p ESI E d w Full ms2 1367.00@cid:



69j



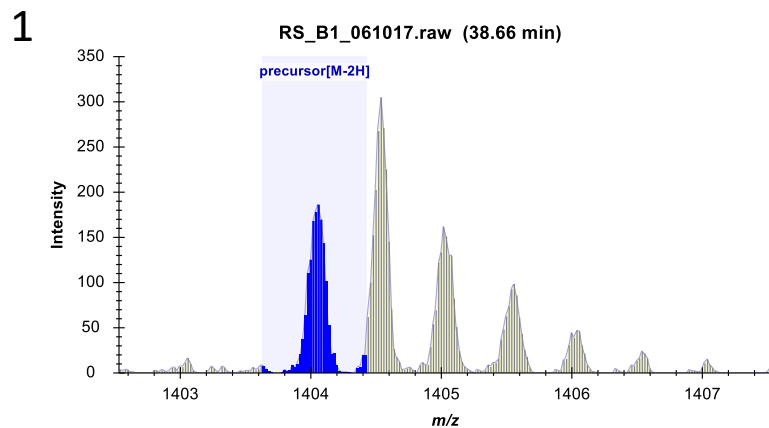
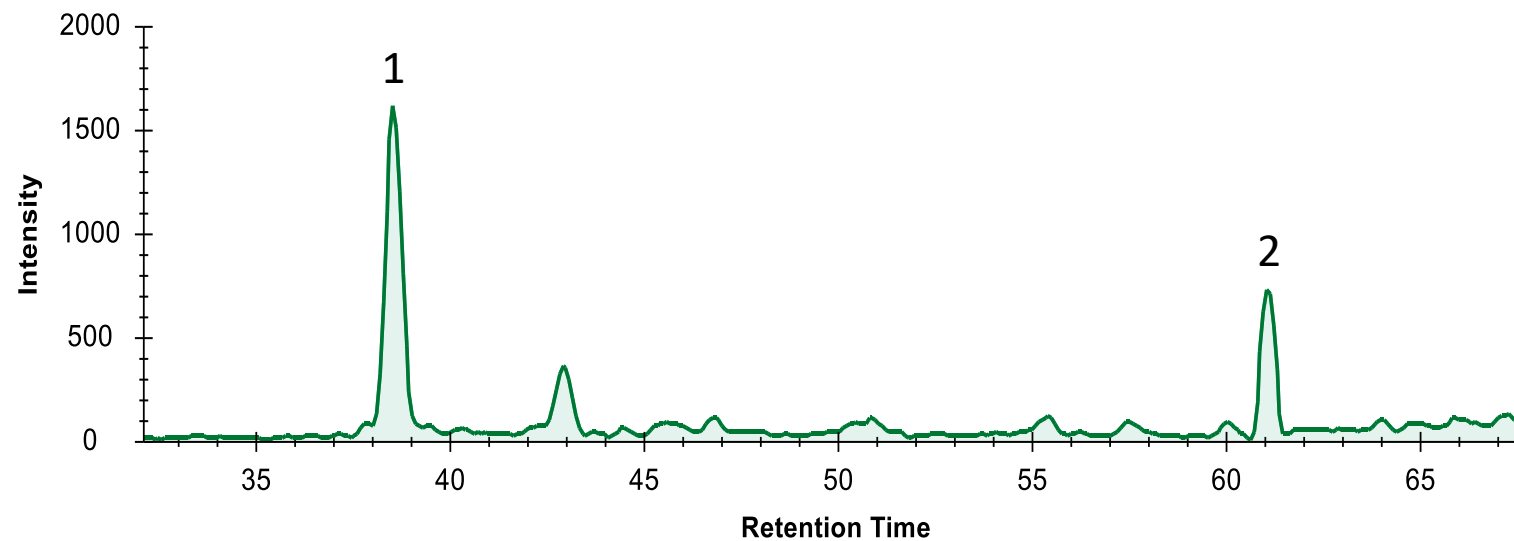
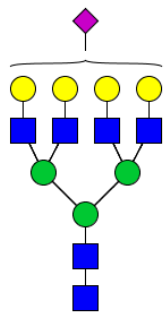
rs\_a1\_061017 #4395 RT: 58.53 AV: 1 NL: 3.54E2  
F: ITMS - p ESI E d w Full ms2 1367.00@cid:



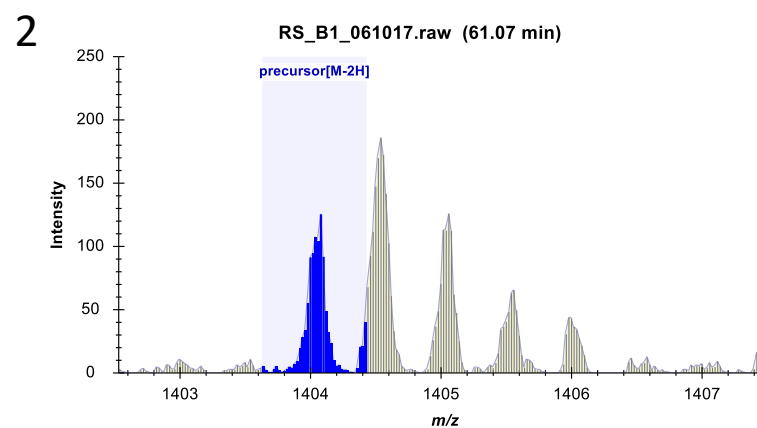
(Hex)<sub>4</sub> (HexNAc)<sub>4</sub> (Deoxyhexose)<sub>1</sub> (NeuAc)<sub>1</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

GlytouCan ID: G30676OW

[M-2H]<sup>-</sup> 1404.03



70a

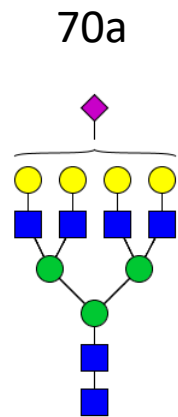


70b

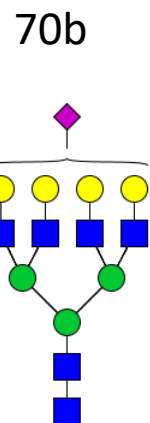
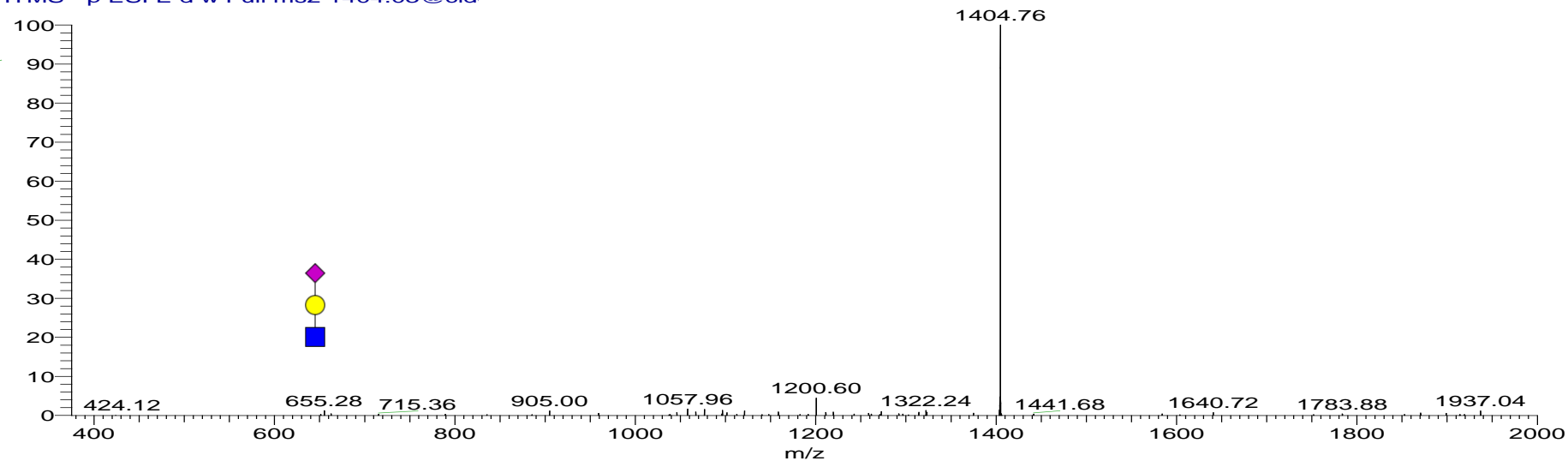
GlytouCan ID: G306760W

CID-MS/MS

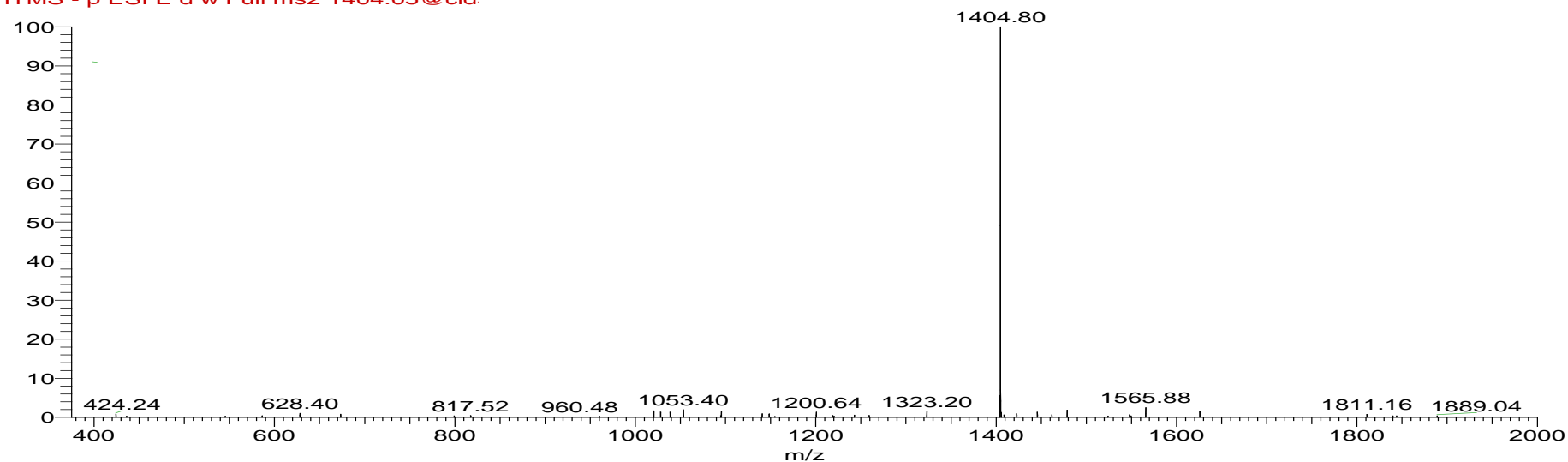
( $m/z$  1404.05<sup>2-</sup>)



RS\_B1\_061017 #2860 RT: 38.46 AV: 1 NL: 3.10E2  
T: ITMS - p ESI E d w Full ms2 1404.03@cid



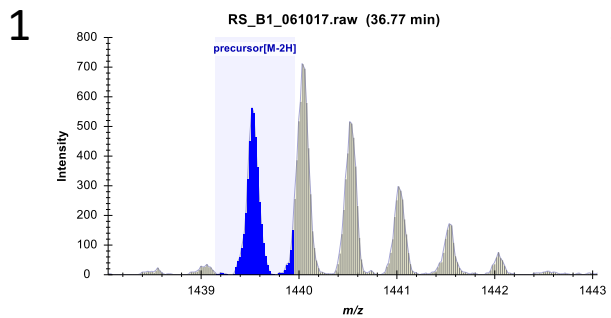
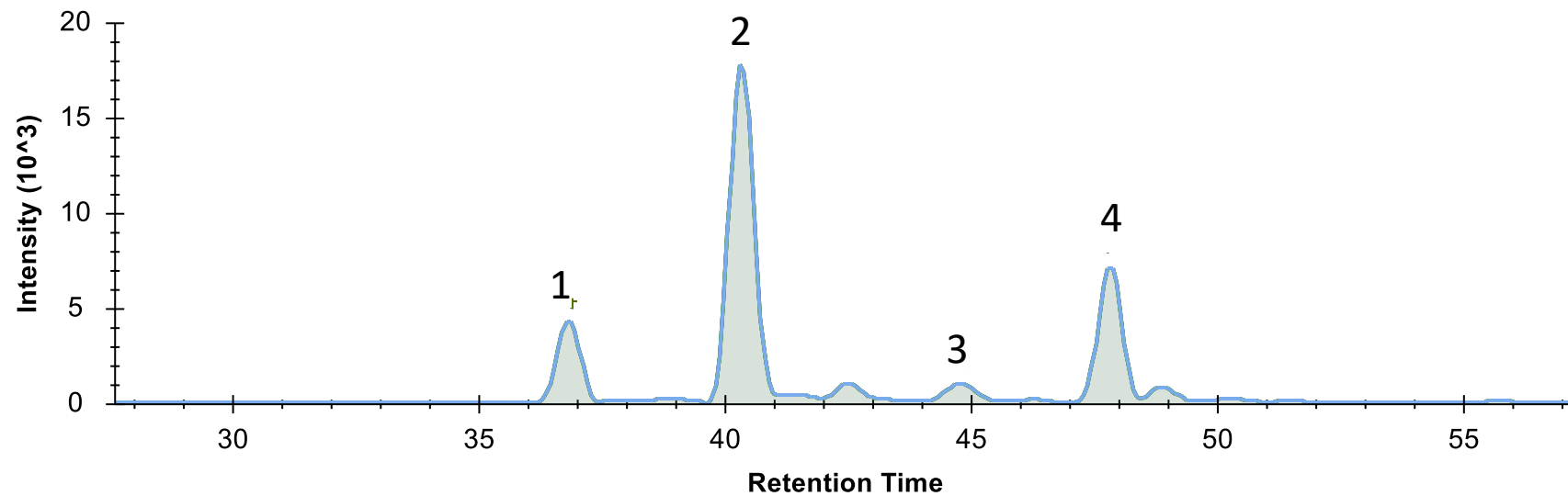
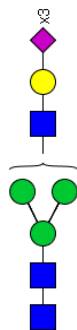
rs\_a4\_061017 #4694 RT: 62.05 AV: 1 NL: 1.71E2  
F: ITMS - p ESI E d w Full ms2 1404.05@cid



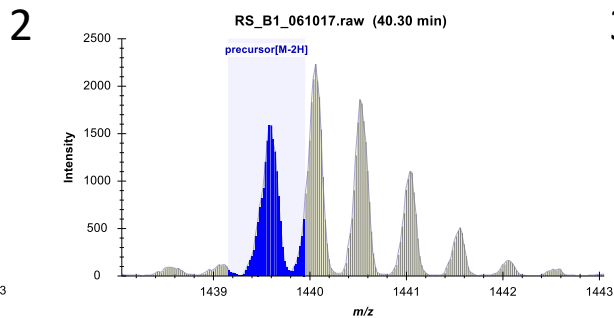
(Hex)3 (HexNAc)3 (NeuAc)3 + (Man)3(GlcNAc)2

[M-2H] 1439.55

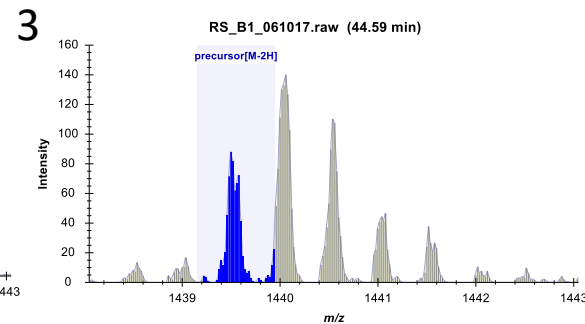
[M-3H] 959.33



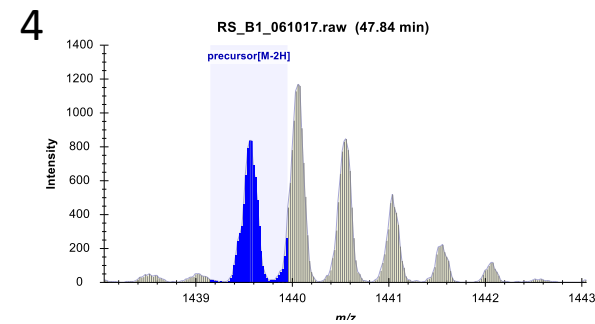
71a



71b



71c

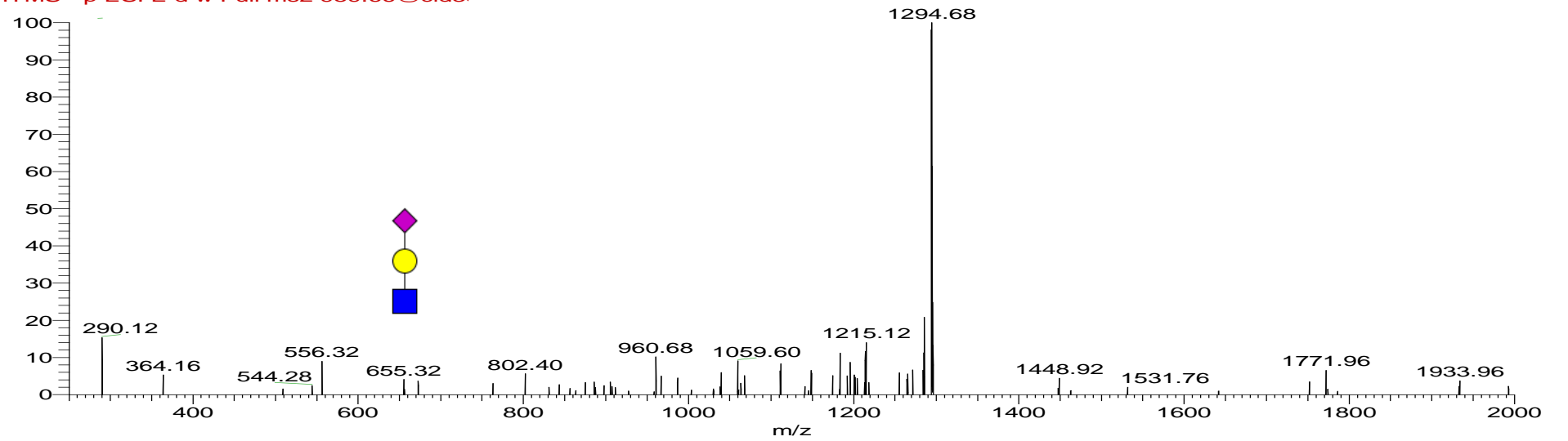
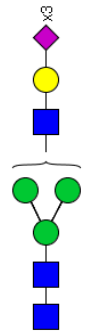


71d

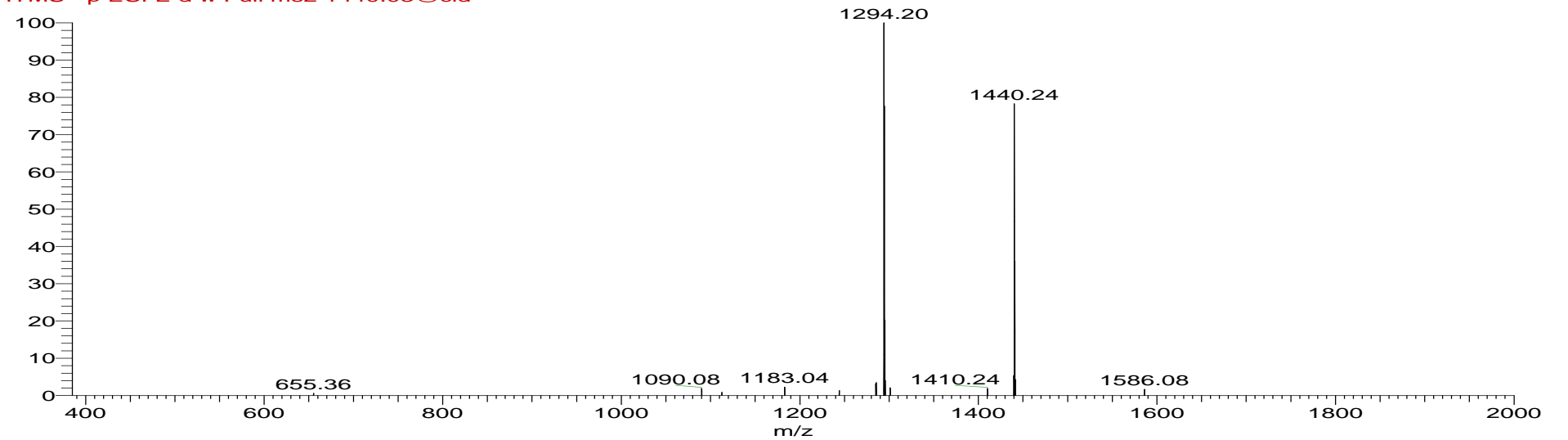
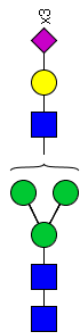


# CID-MS/MS ( $m/z$ 959.66<sup>3-</sup>)

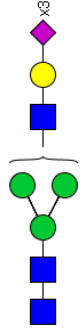
rs\_b1\_061017 #3546 RT: 47.99 AV: 1 NL: 4.82E1  
F: ITMS - p ESI E d w Full ms2 959.66@cid3:



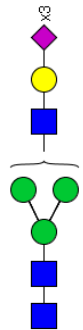
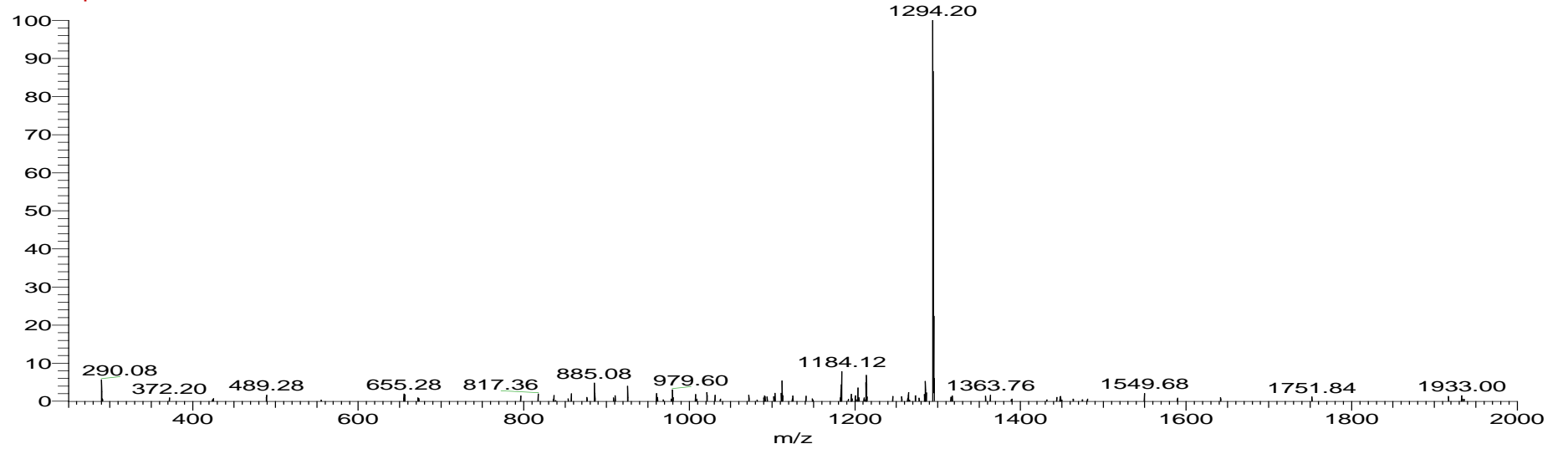
rs\_e1\_061017 #3355 RT: 45.39 AV: 1 NL: 9.23E1  
F: ITMS - p ESI E d w Full ms2 1440.03@cid:



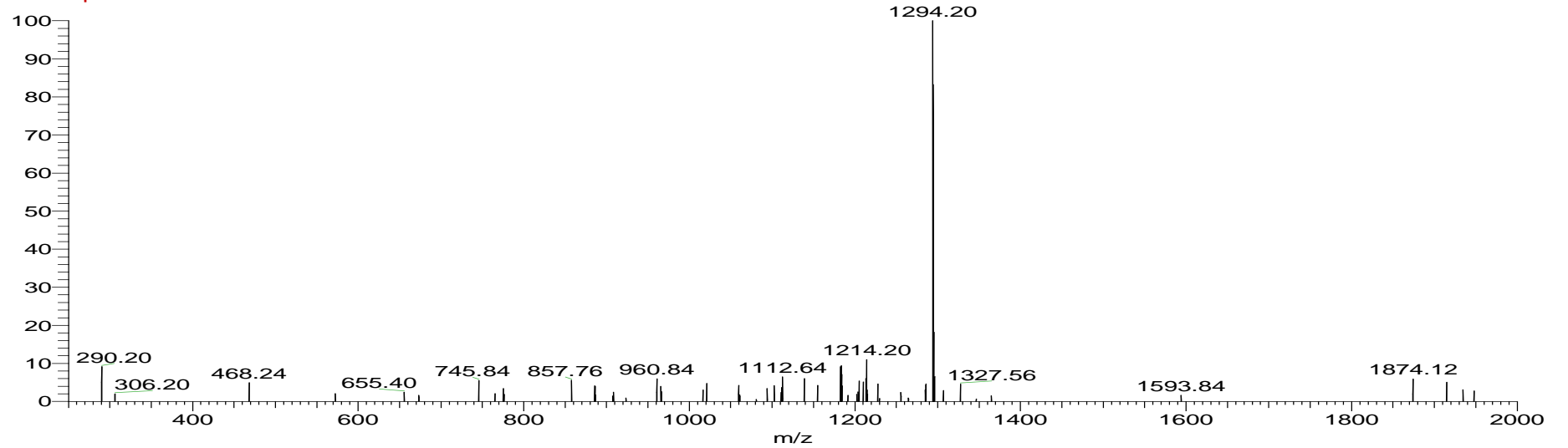
CID-MS/MS  
( $m/z$  959.66<sup>3-</sup>)



RS\_E1\_061017 #3025 RT: 40.87 AV: 1 NL: 1.62E2  
F: ITMS - p ESI E d w Full ms2 959.65@cid3:



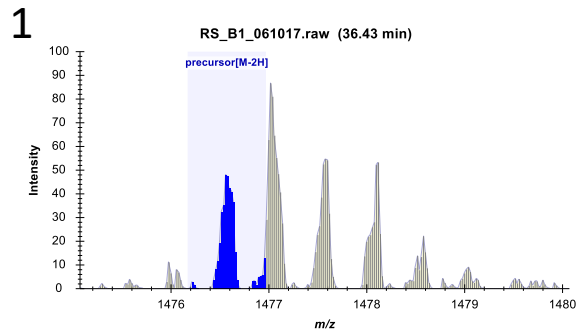
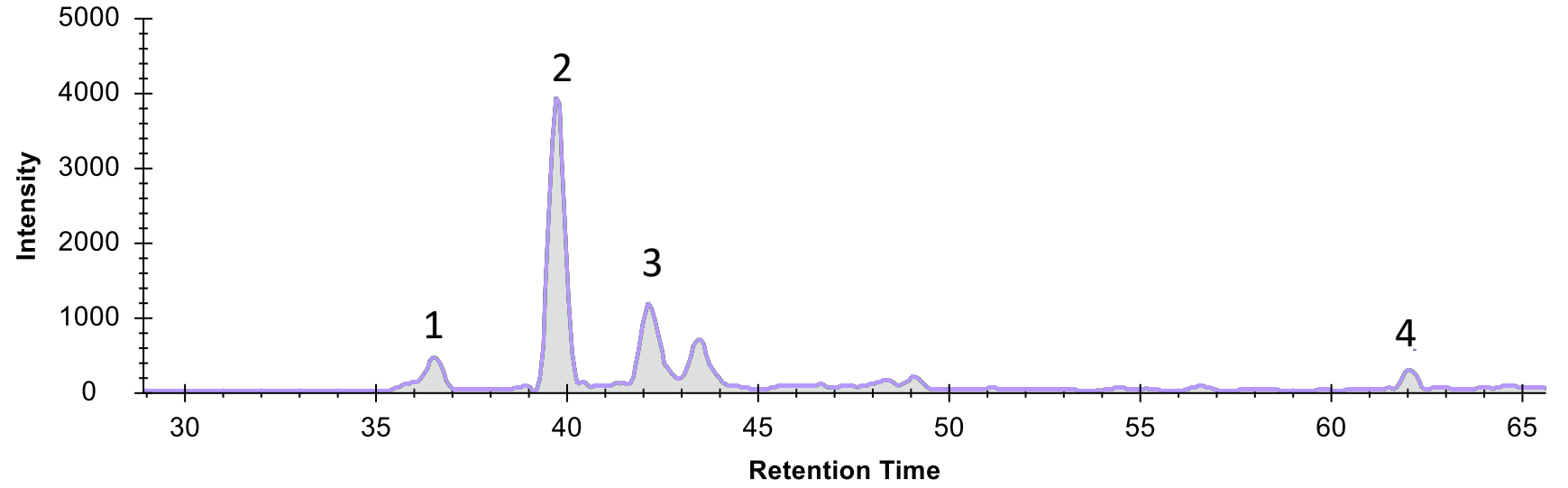
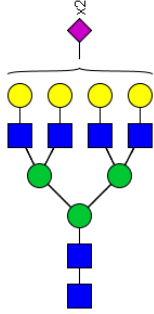
RS\_E1\_061017 #2768 RT: 37.25 AV: 1 NL: 6.08E1  
F: ITMS - p ESI E d w Full ms2 959.65@cid3:



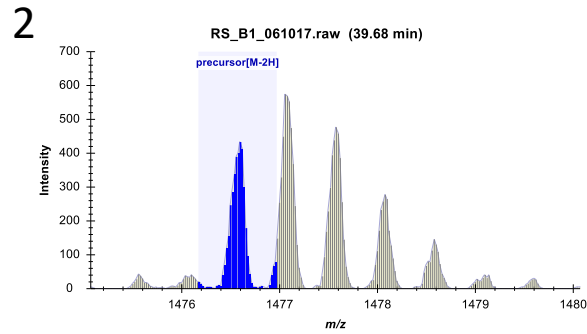
(Hex)4 (HexNAc)4 (NeuAc)2 + (Man)3(GlcNAc)2

No GlytouCan ID

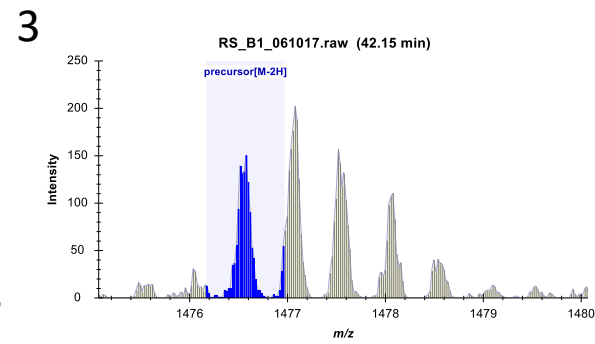
[M-2H] 1476.57



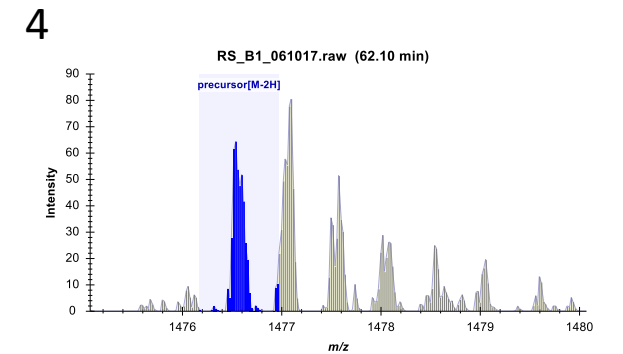
72a



72b



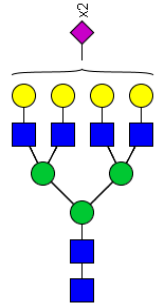
72c



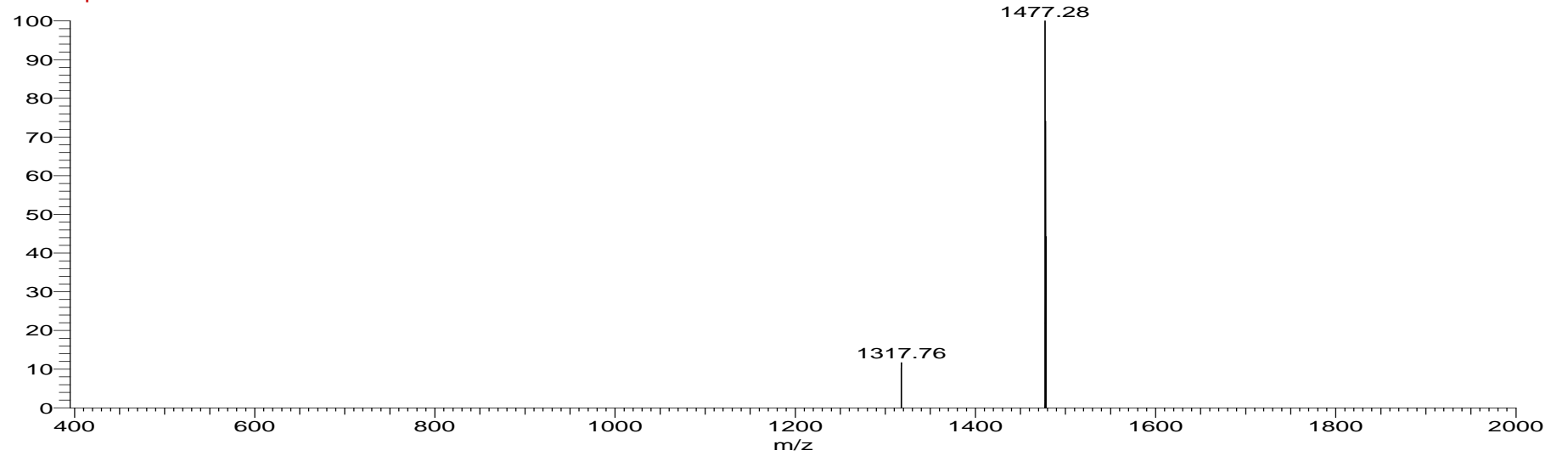
72d

CID-MS/MS  
( $m/z$  1476.57<sup>2-</sup>)

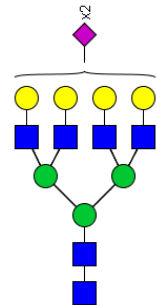
72a



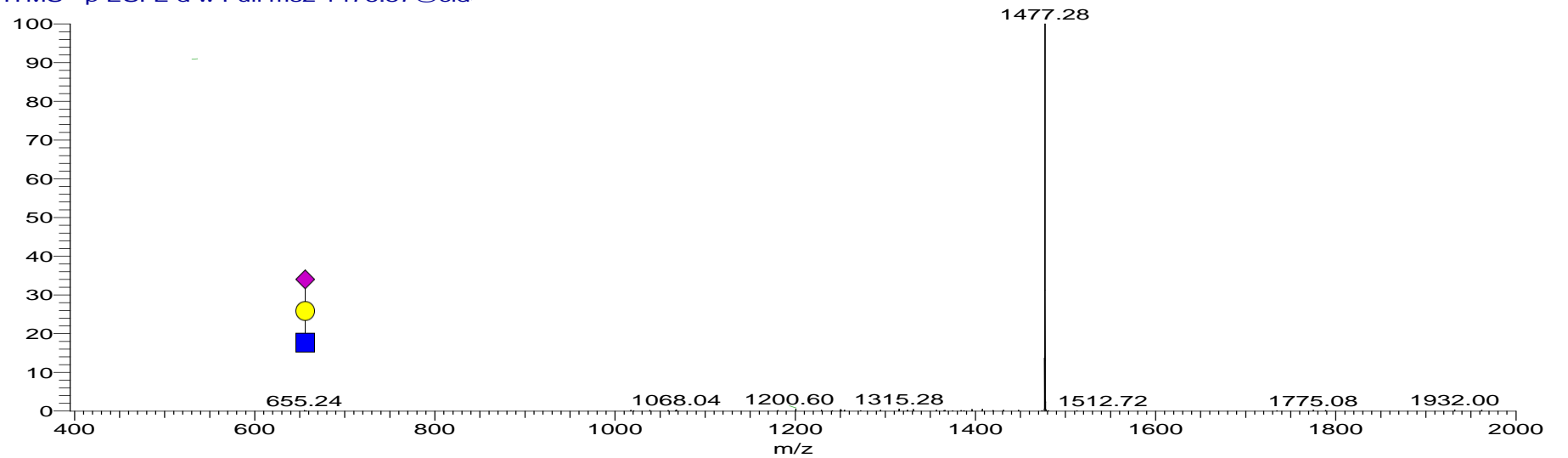
rs\_e7\_061017 #2853 RT: 38.19 AV: 1 NL: 2.02E1  
F: ITMS - p ESI E d w Full ms2 1477.12@cid



72b

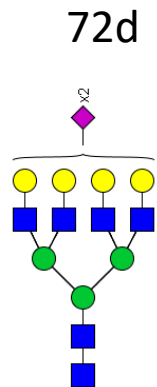
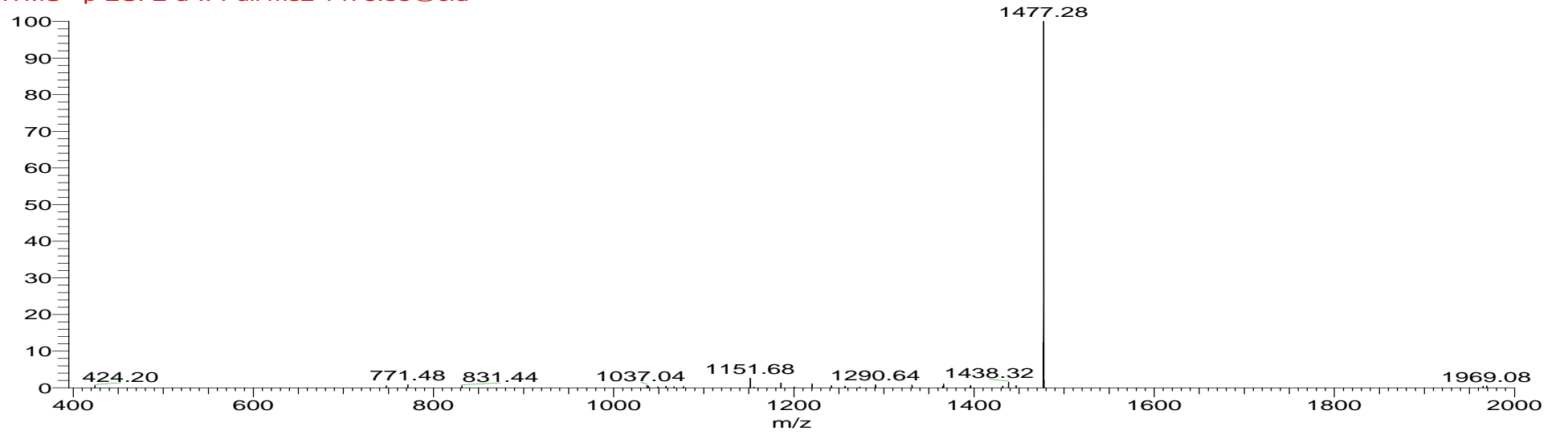
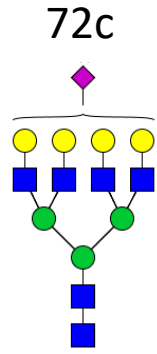


RS\_B1\_061017 #2950 RT: 39.75 AV: 1 NL: 8.17E2  
T: ITMS - p ESI E d w Full ms2 1476.57@cid

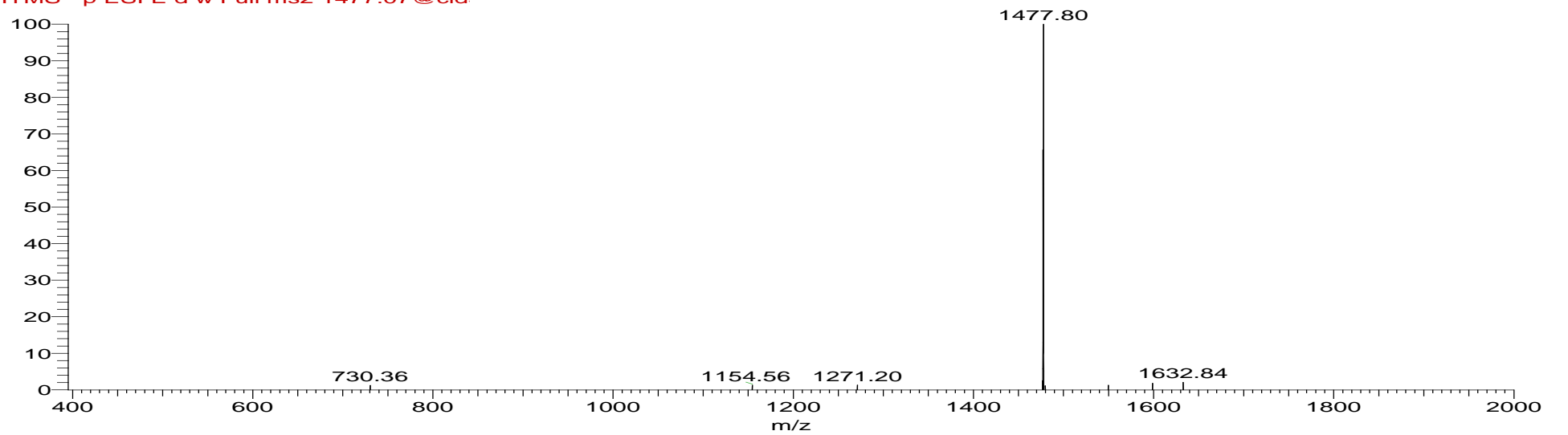


# CID-MS/MS ( $m/z$ 1476.57<sup>2-</sup>)

RS\_B1\_061017 #3118 RT: 42.12 AV: 1 NL: 2.80E2  
F: ITMS - p ESI E d w Full ms2 1476.55@cid



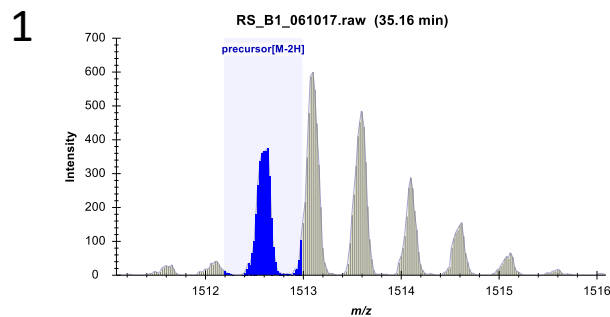
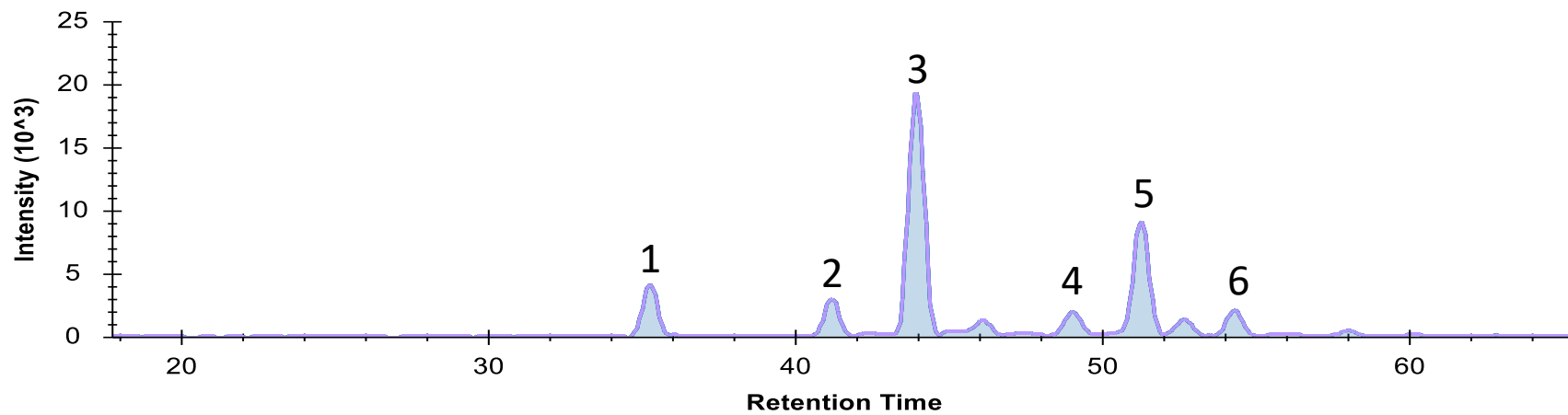
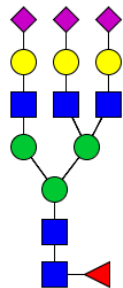
rs\_a4\_061017 #4767 RT: 62.98 AV: 1 NL: 5.86E1  
F: ITMS - p ESI E d w Full ms2 1477.07@cid



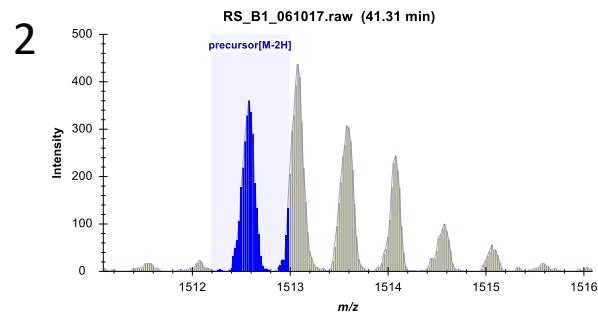
(Hex)3 (HexNAc)3 (Deoxyhexose)1 (NeuAc)3 + (Man)3(GlcNAc)2

GlytouCan ID: G72165OE

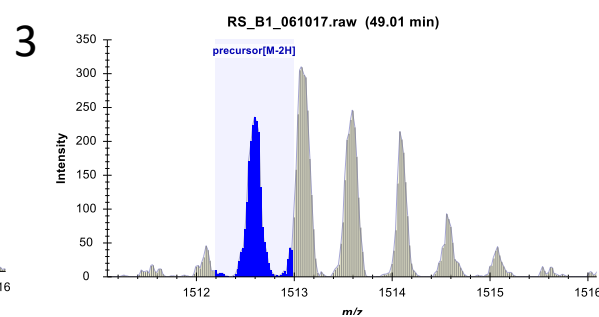
[M-2H]<sup>-</sup> 1512.59



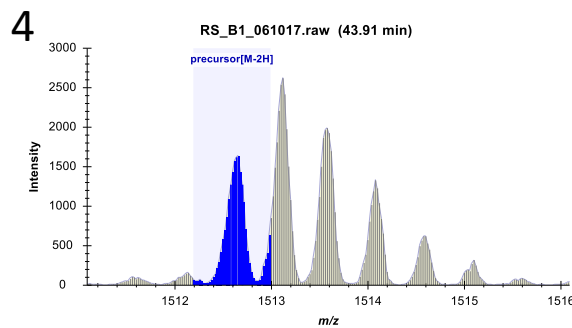
73a



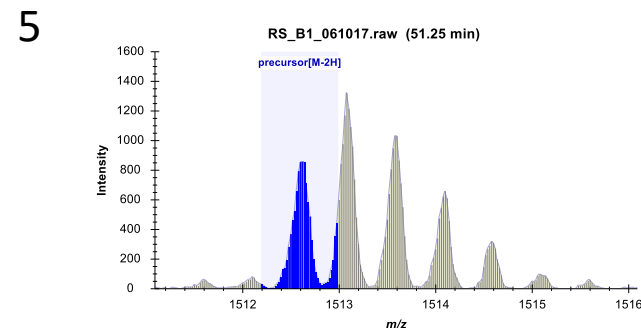
73b



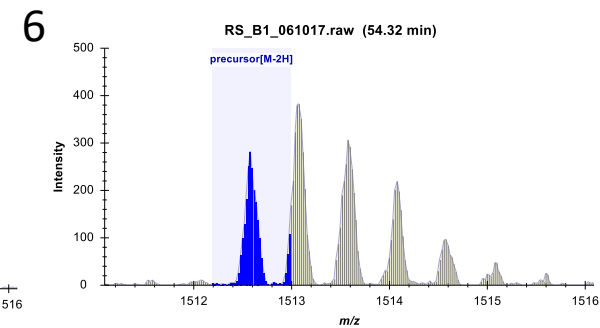
73c



73d



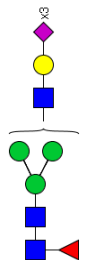
73e



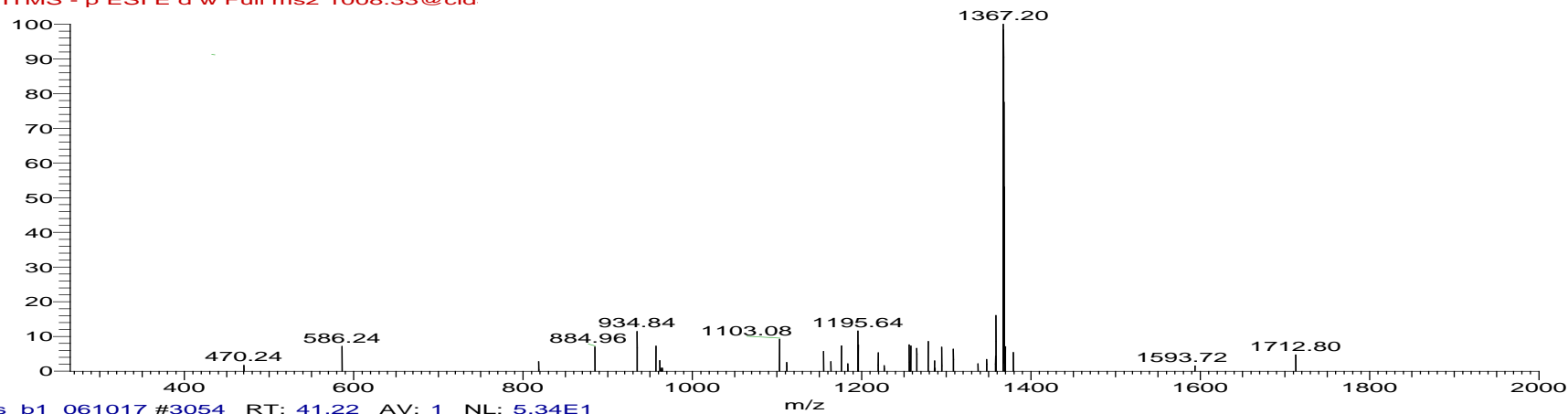
73f

GlytouCan ID: G72165OE

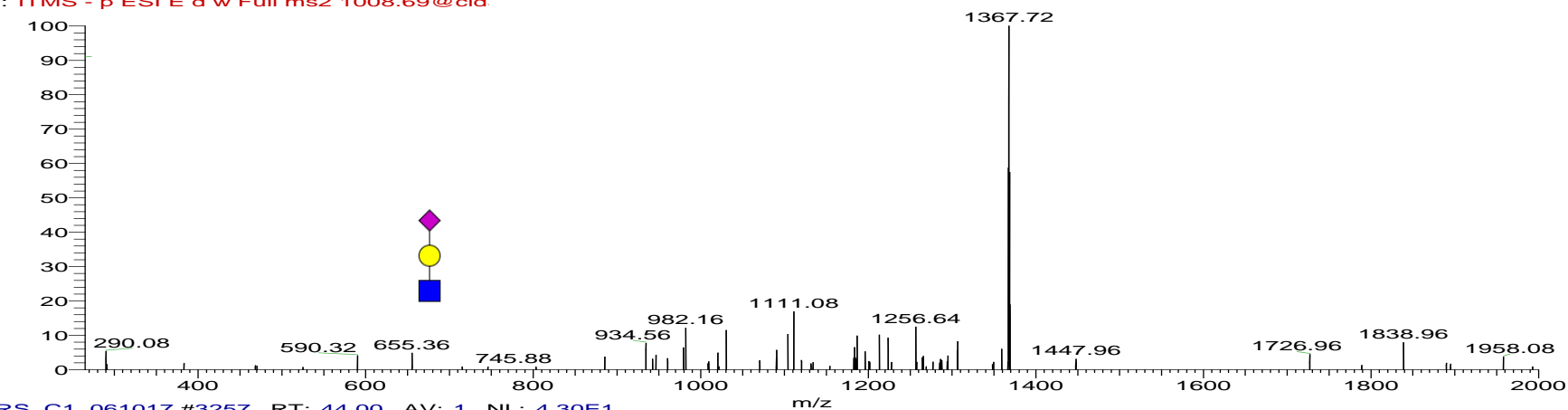
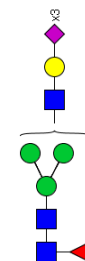
CID-MS/MS  
( $m/z$  1008.33  $^{3-}$ )



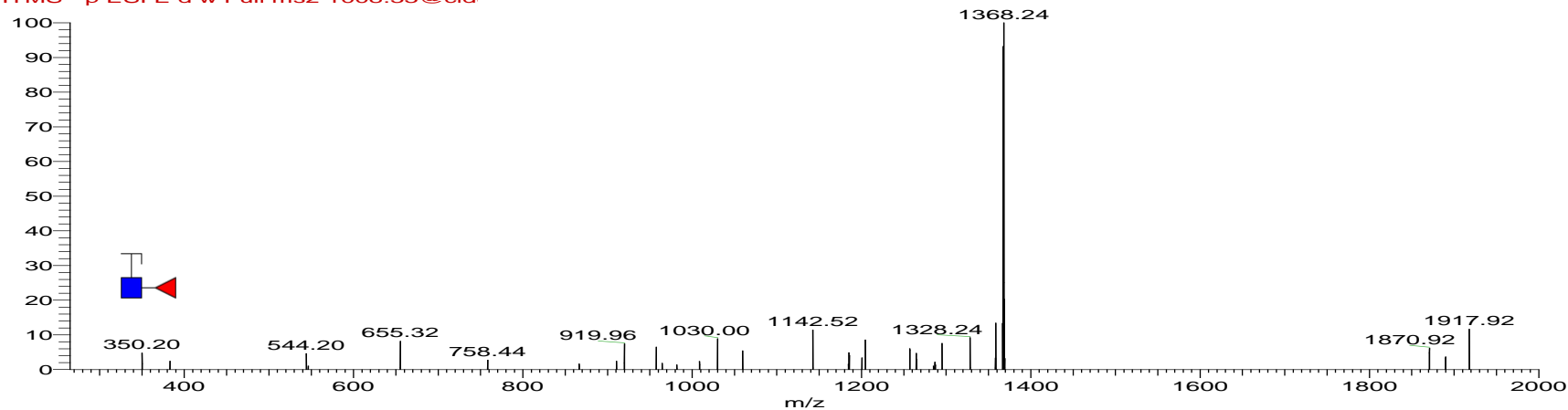
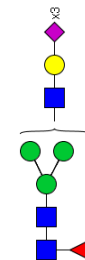
RS\_C1\_061017 #2607 RT: 35.04 AV: 1 NL: 3.84E1  
F: ITMS - p ESI E d w Full ms2 1008.33@cid



rs\_b1\_061017 #3054 RT: 41.22 AV: 1 NL: 5.34E1  
F: ITMS - p ESI E d w Full ms2 1008.69@cid

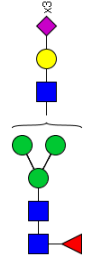


RS\_C1\_061017 #3257 RT: 44.00 AV: 1 NL: 4.30E1  
F: ITMS - p ESI E d w Full ms2 1008.33@cid

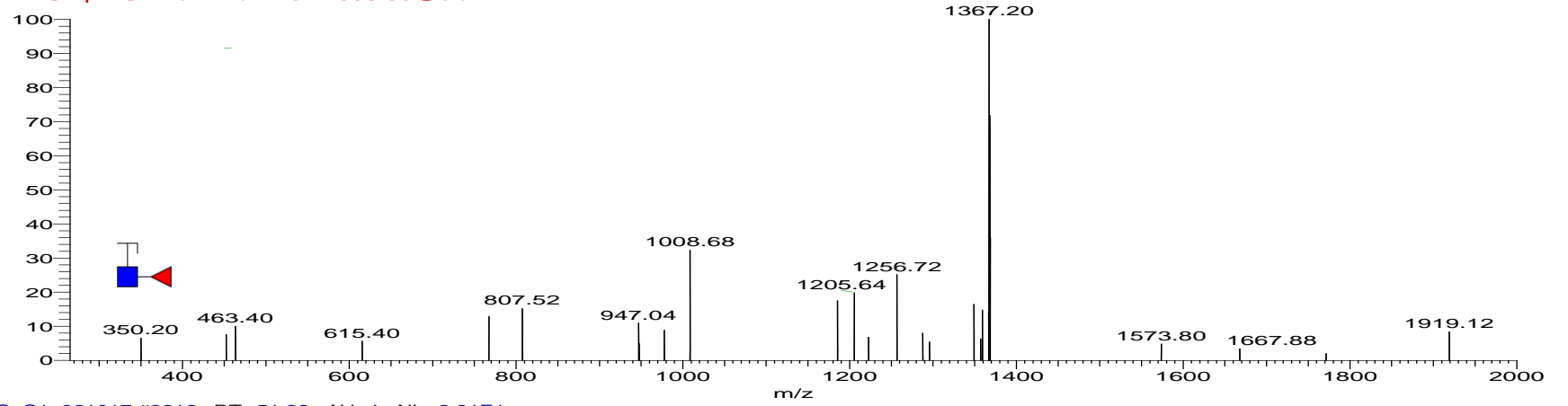


GlytouCan ID: G72165OE

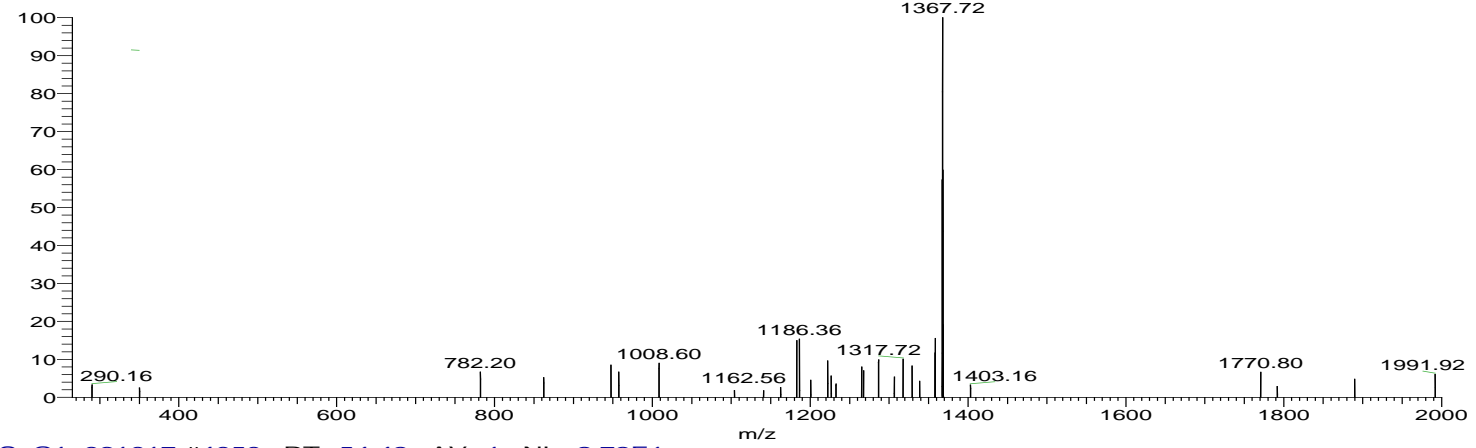
CID-MS/MS  
( $m/z$  1008.33  $^{3-}$ )



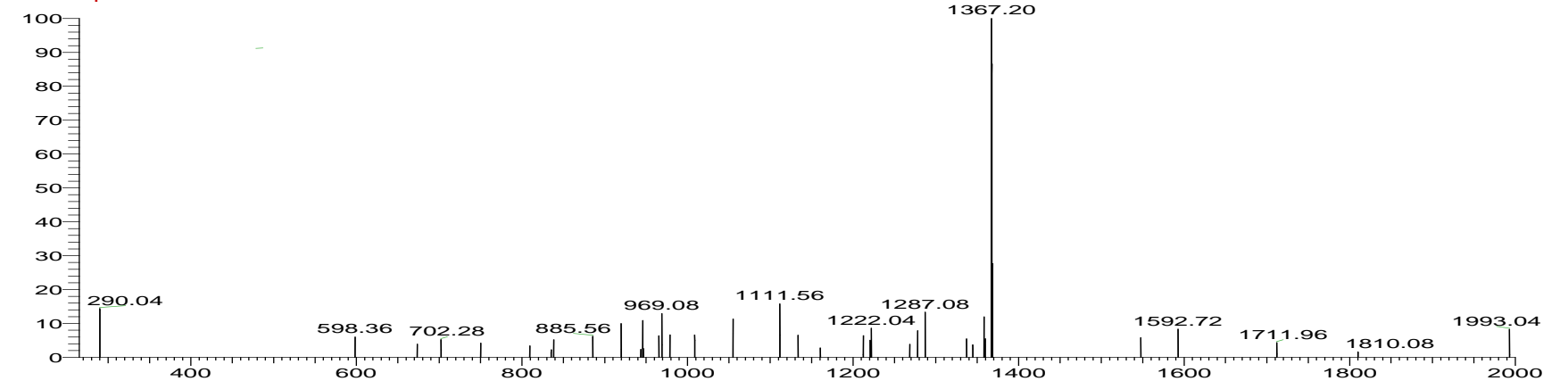
RS\_C1\_061017 #3636 RT: 49.02 AV: 1 NL: 1.76E1  
F: ITMS - p ESI E d w Full ms2 1008.33@cid



RS\_C1\_061017 #3816 RT: 51.39 AV: 1 NL: 2.81E1  
F: ITMS - p ESI E d w Full ms2 1008.33@cid



RS\_C1\_061017 #4050 RT: 54.43 AV: 1 NL: 2.73E1  
F: ITMS - p ESI E d w Full ms2 1008.33@cid



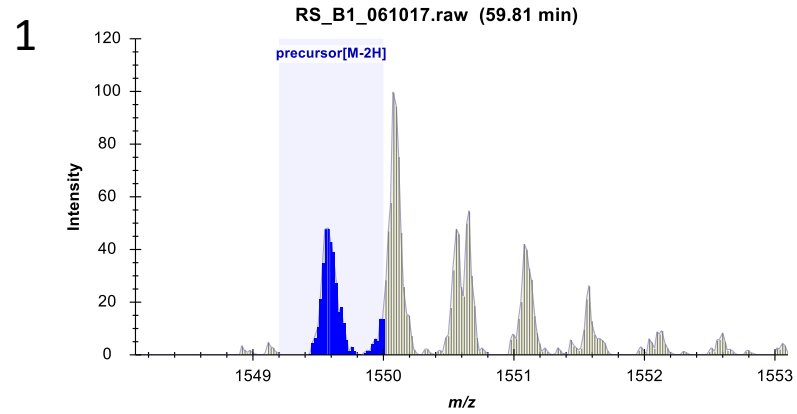
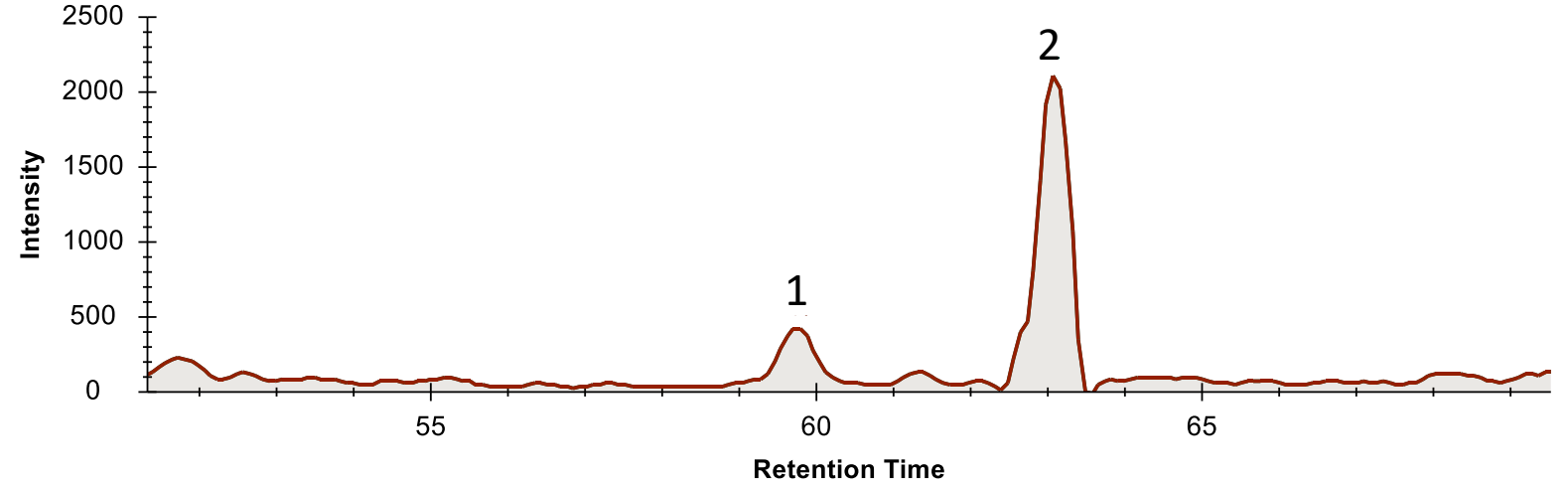
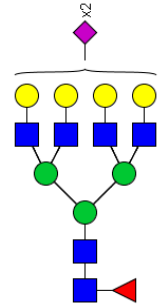


(Hex)4 (HexNAc)4 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)2

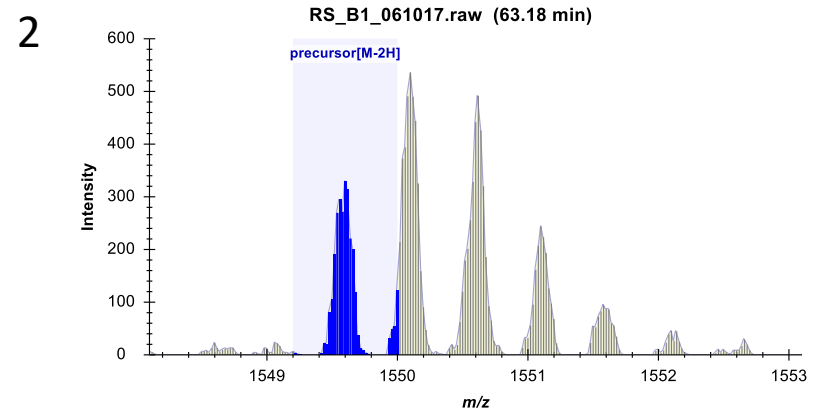
GlytouCan ID: G86960BM

[M-2H] 1549.6

[M-3H] 1032.69



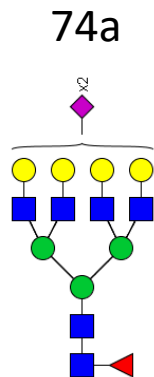
74a



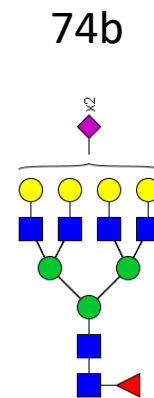
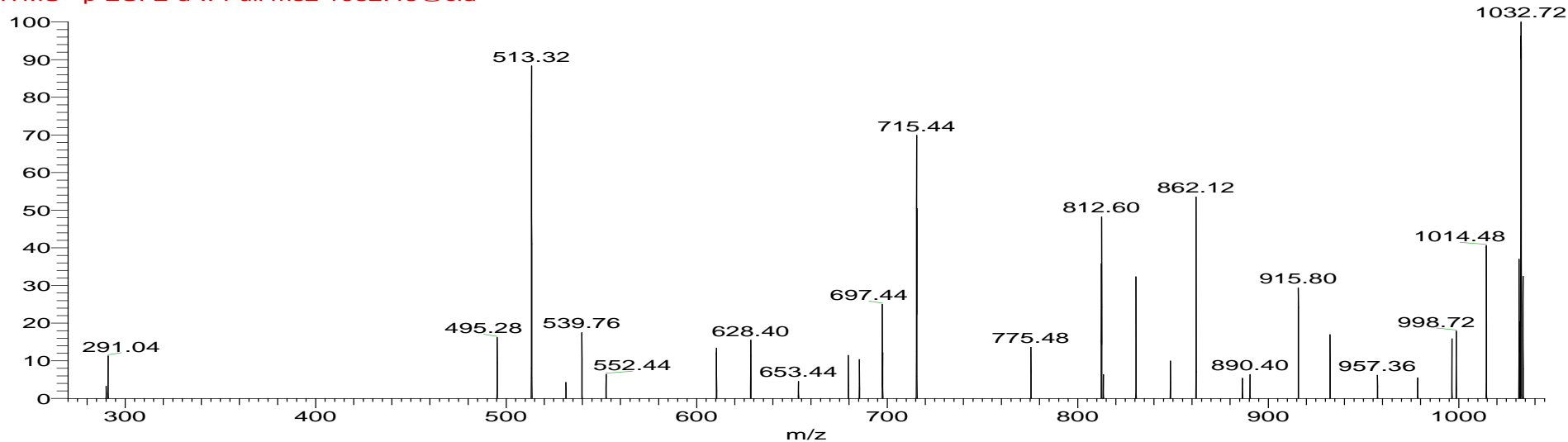
74b

CID-MS/MS

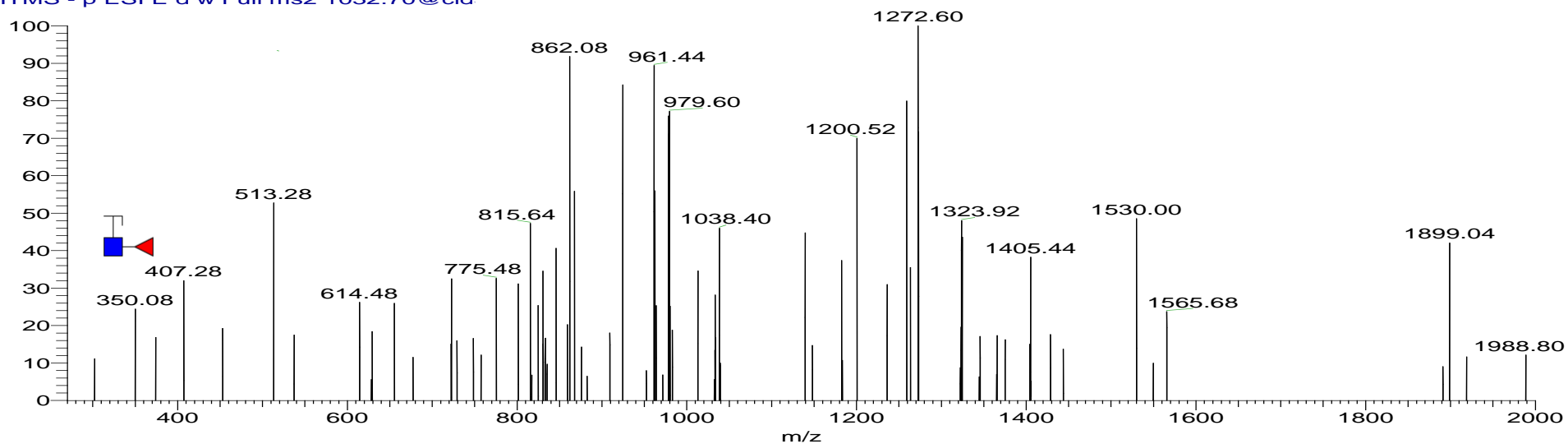
( $m/z$  1032.46  $^{3-}$ )



RS\_D6\_061017 #4622 RT: 61.44 AV: 1 NL: 1.03E1  
 F: ITMS - p ESI E d w Full ms2 1032.46@cid



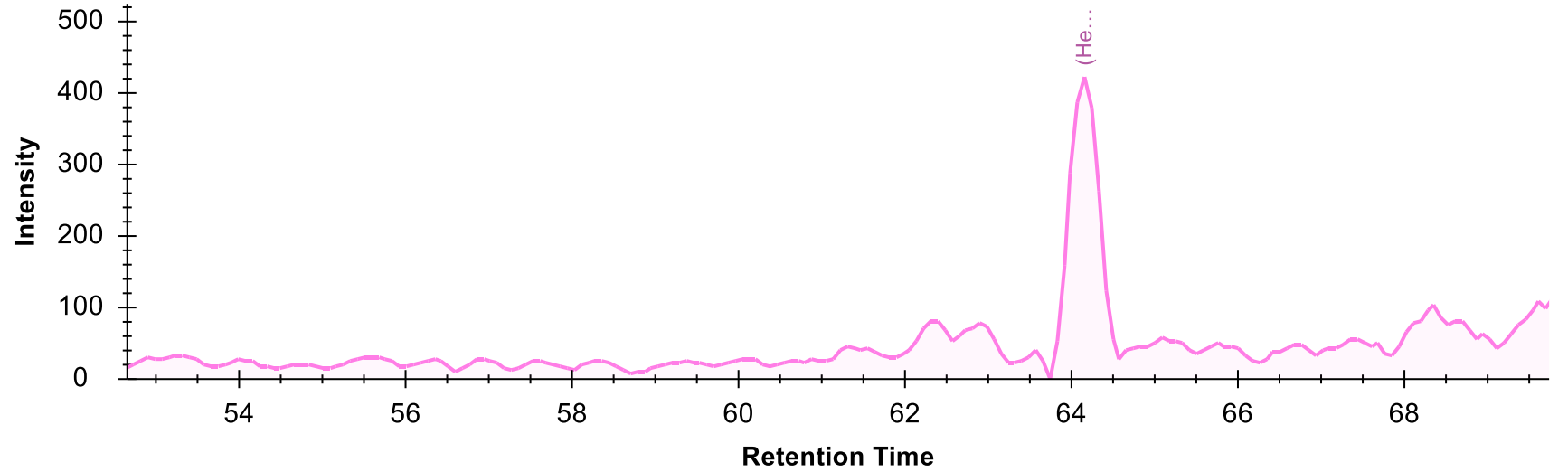
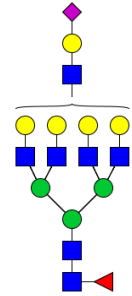
RS\_E1\_061017 #4682 RT: 63.38 AV: 1 NL: 5.99  
 T: ITMS - p ESI E d w Full ms2 1032.70@cid



(Hex)5 (HexNAc)5 (Deoxyhexose)1 (NeuAc)1 + (Man)3(GlcNAc)2

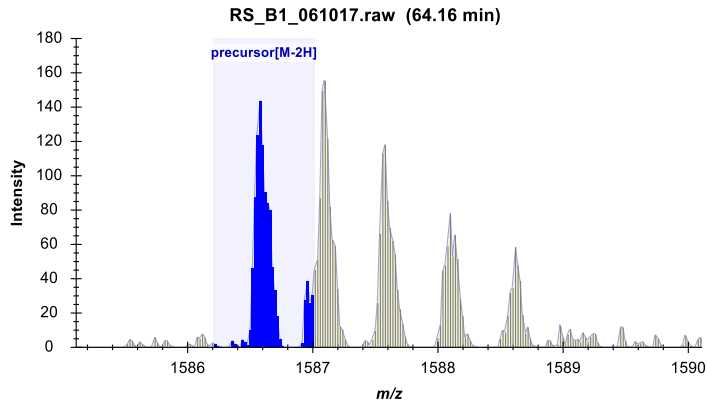
No GlytouCan ID

[M-2H] 1586.61

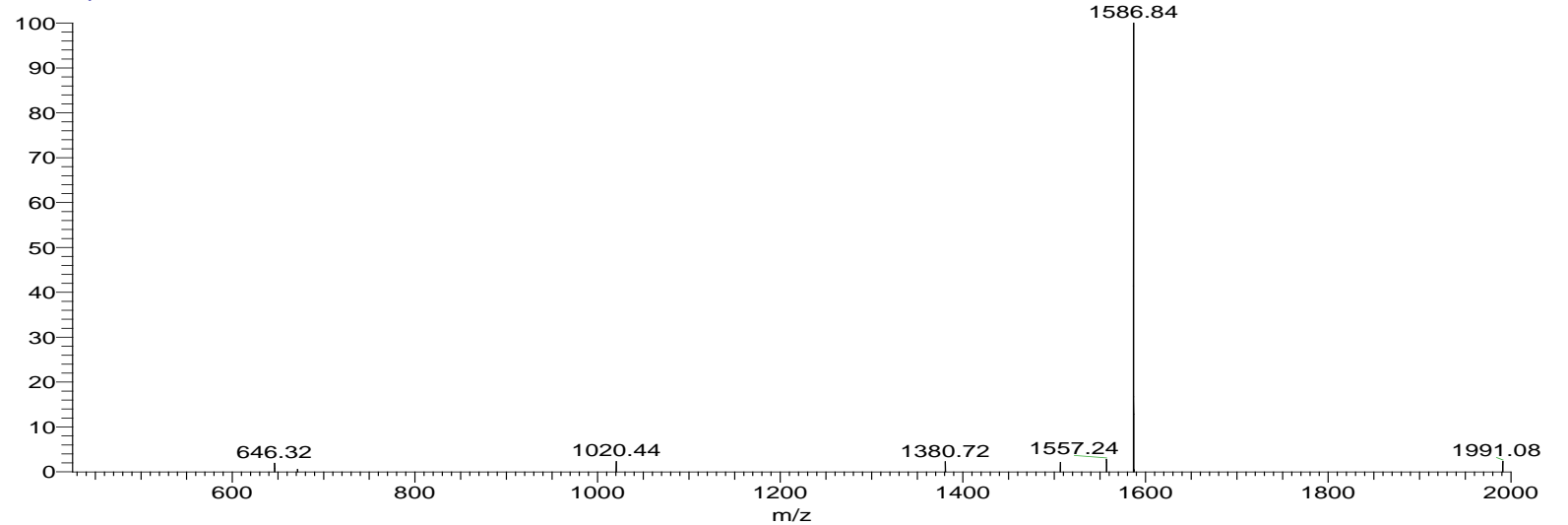


CID-MS/MS ( $m/z$  1586.61  $^{2-}$ )

RS\_E1\_061017 #4749 RT: 64.24 AV: 1 NL: 9.31E1  
T: ITMS - p ESI E d w Full ms2 1586.61@cid

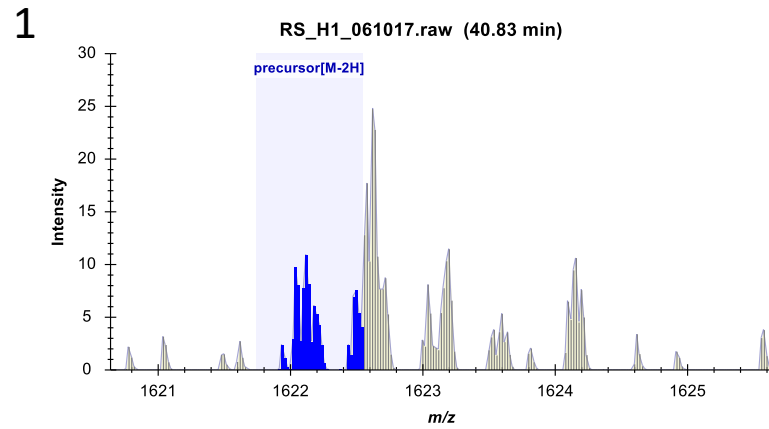
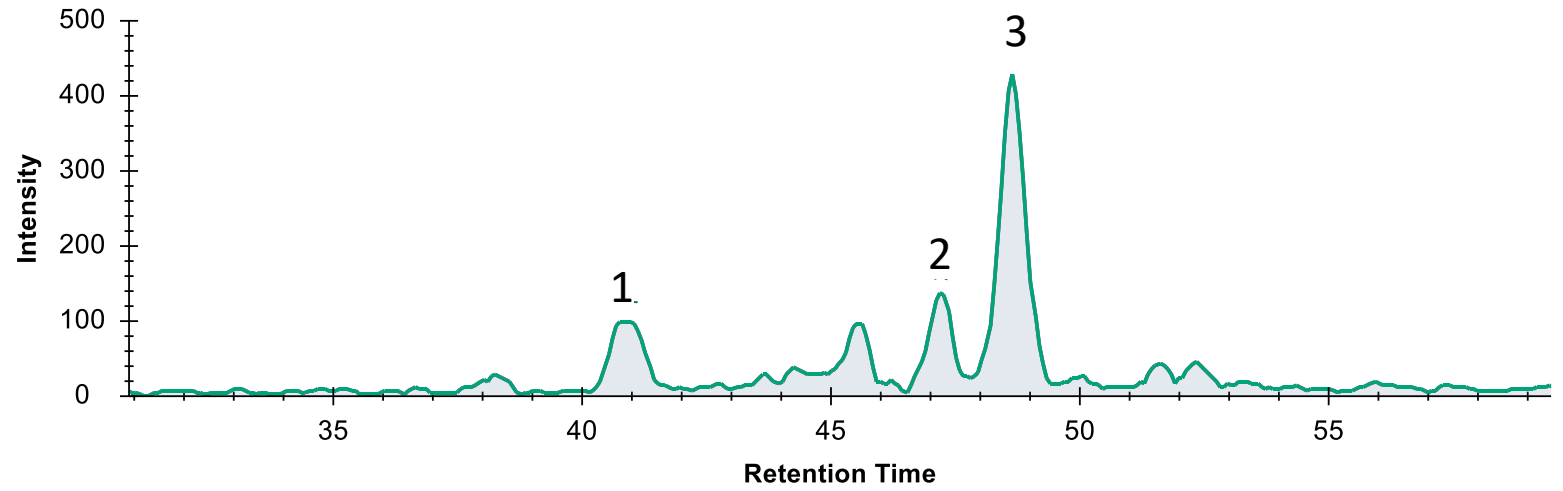
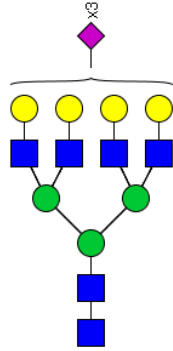


Glycan ID: 75

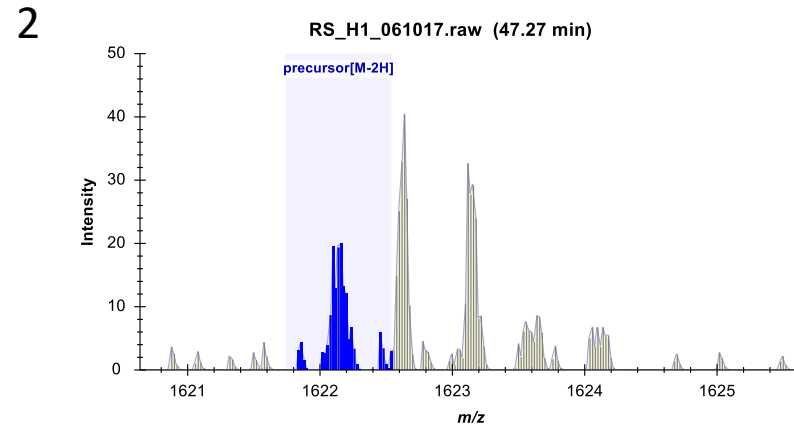


(Hex)<sub>4</sub> (HexNAc)<sub>4</sub> (NeuAc)<sub>3</sub> + (Man)<sub>3</sub>(GlcNAc)<sub>2</sub>

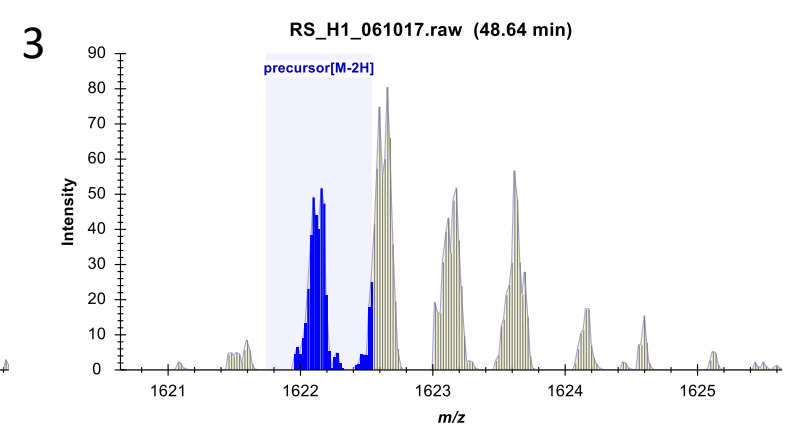
[M-2H]<sup>-</sup> 1622.14



76a



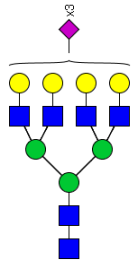
76b



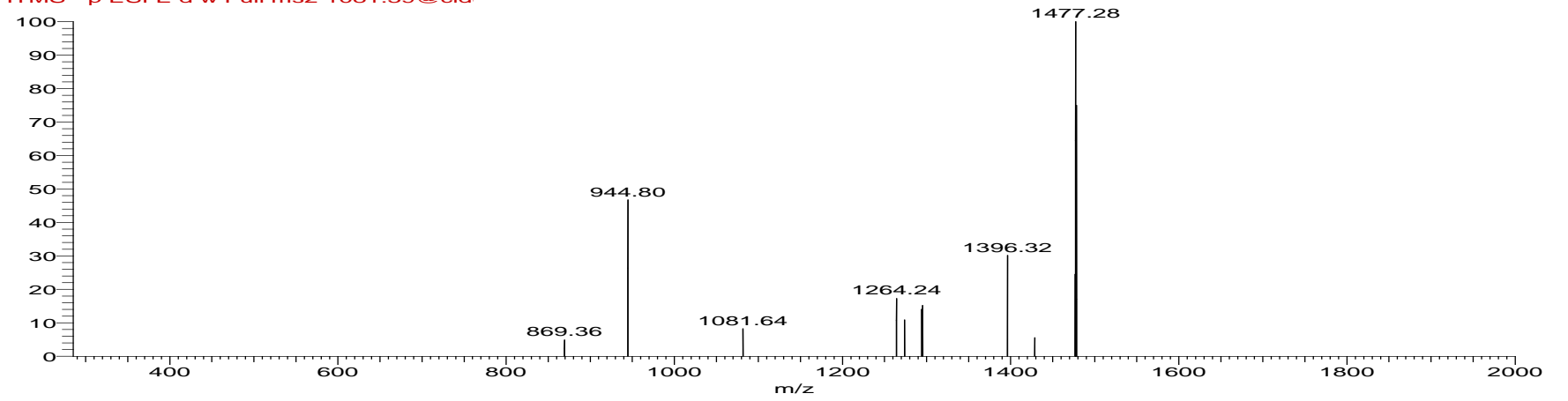
76c

CID-MS/MS  
( $m/z$  1081.38<sup>3-</sup>)

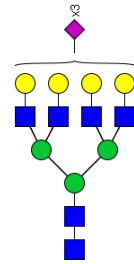
76a



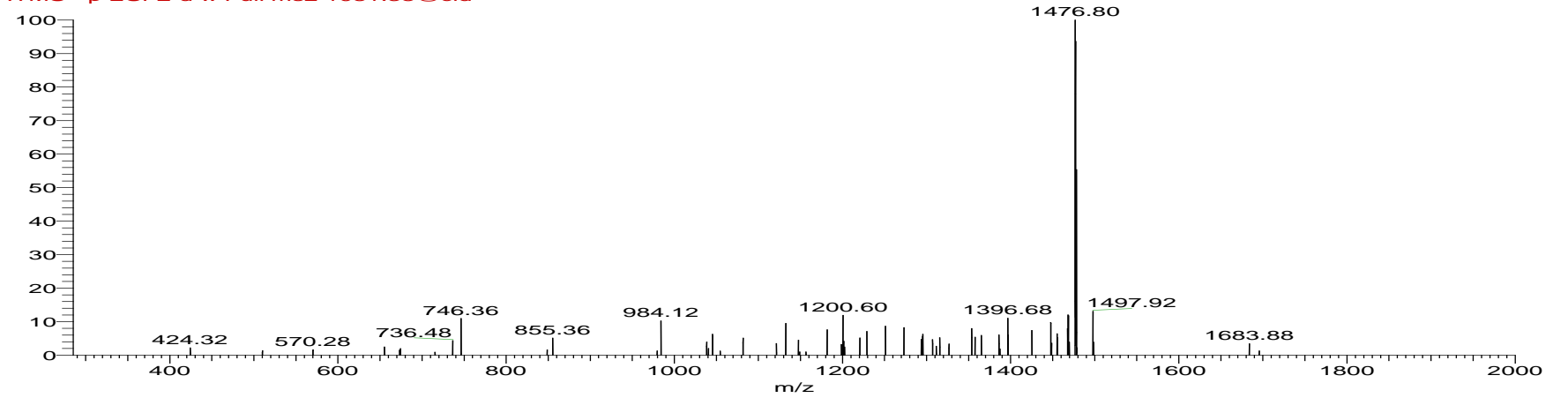
rs\_a2\_061017 #3156 RT: 42.36 AV: 1 NL: 1.26E1  
F: ITMS - p ESI E d w Full ms2 1081.39@cid



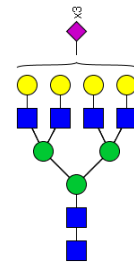
76b



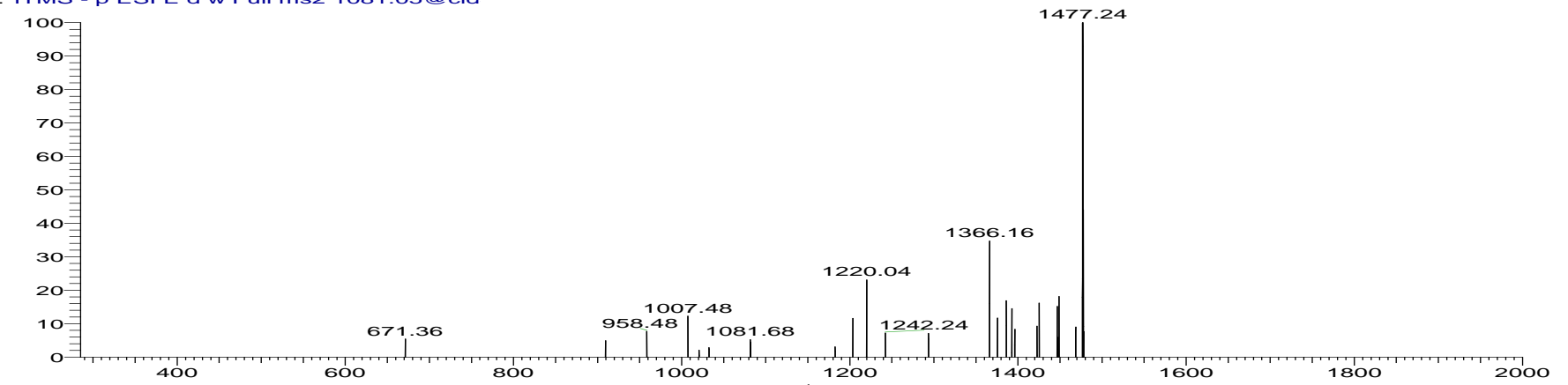
RS\_B1\_061017 #3478 RT: 47.05 AV: 1 NL: 4.24E1  
F: ITMS - p ESI E d w Full ms2 1081.38@cid



76c



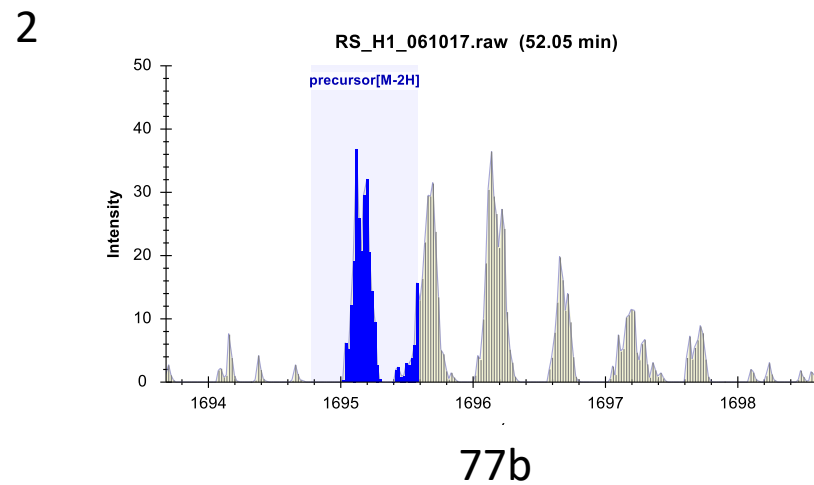
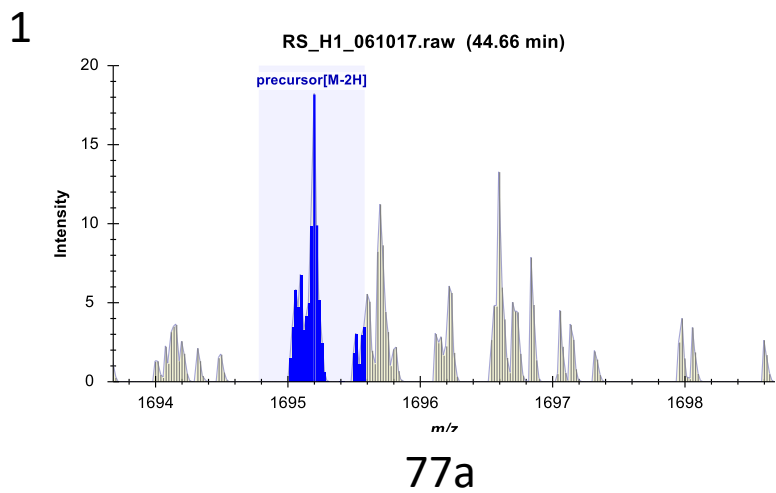
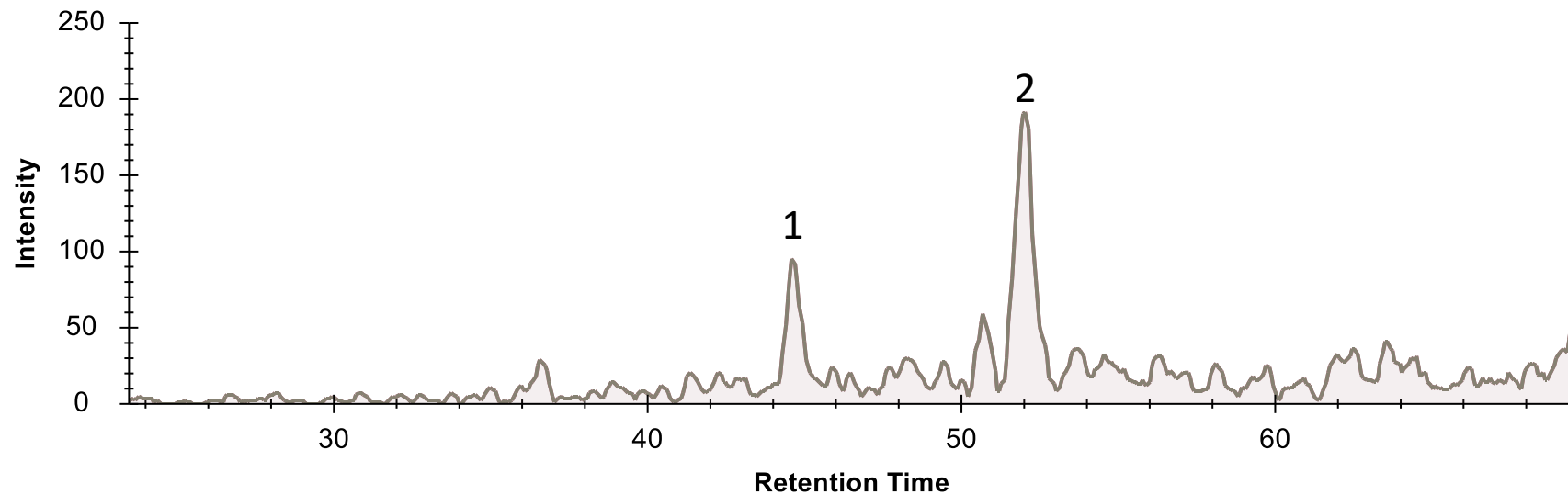
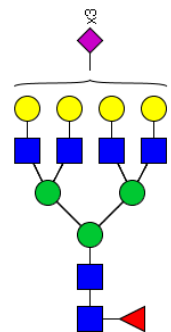
RS\_H1\_061017 #3558 RT: 48.72 AV: 1 NL: 1.94E1  
T: ITMS - p ESI E d w Full ms2 1081.05@cid



(Hex)4 (HexNAc)4 (Deoxyhexose)1 (NeuAc)3 + (Man)3(GlcNAc)2

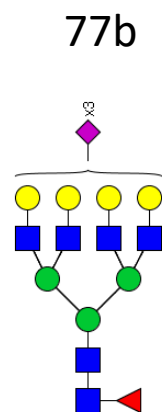
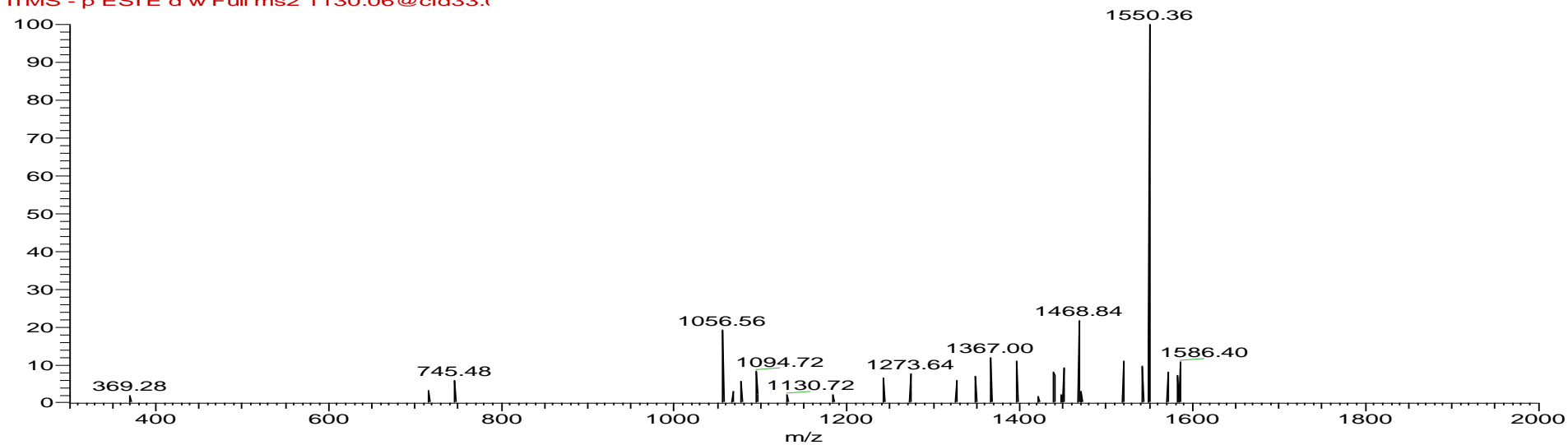
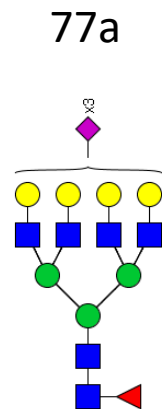
No GlytouCan ID

[M-2H] 1695.18

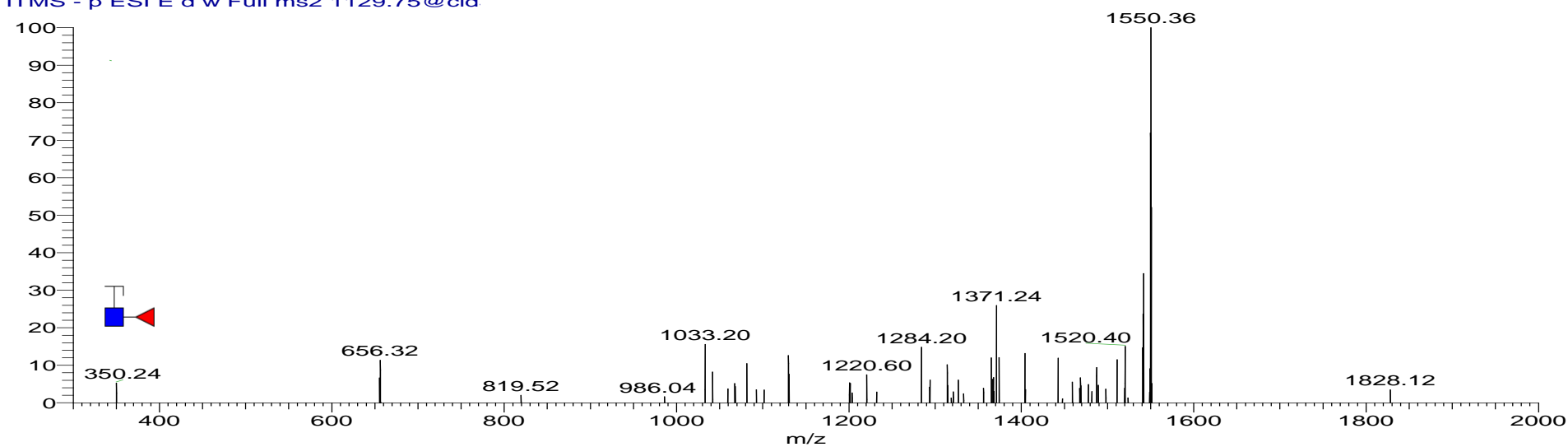


# CID-MS/MS ( $m/z$ 1130<sup>3-</sup>)

RS\_B1\_061017 #3298 RT: 44.65 AV: 1 NL: 3.03E1  
F: ITMS - p ESI E d w Full ms2 1130.06@cid33.(



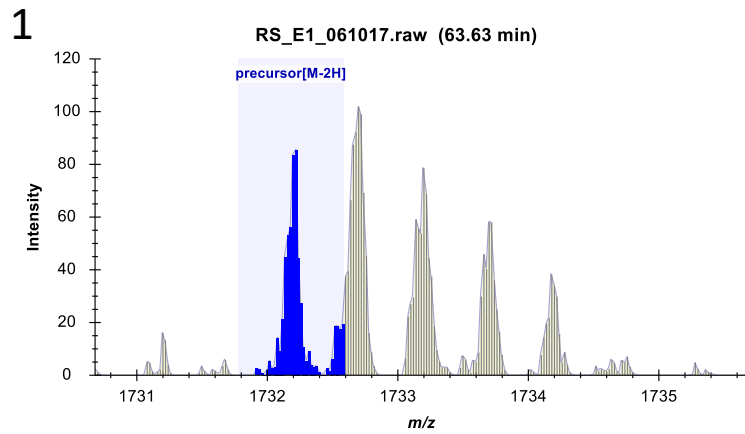
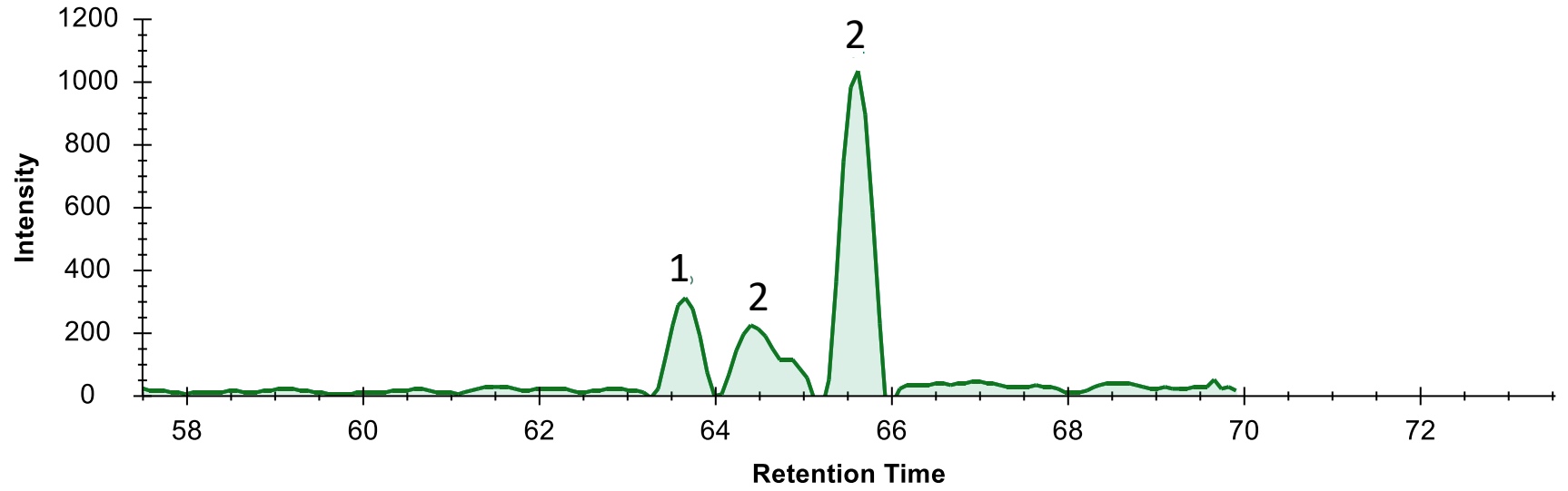
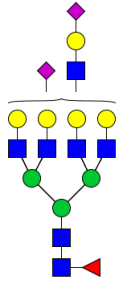
RS\_B1\_061017 #3844 RT: 52.19 AV: 1 NL: 3.17E1  
T: ITMS - p ESI E d w Full ms2 1129.75@cid



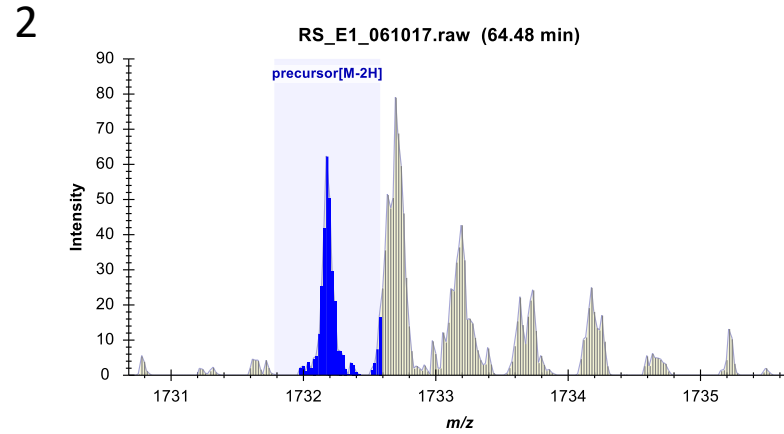
(Hex)5 (HexNAc)5 (Deoxyhexose)1 (NeuAc)2 + (Man)3(GlcNAc)2

No GlytouCan ID

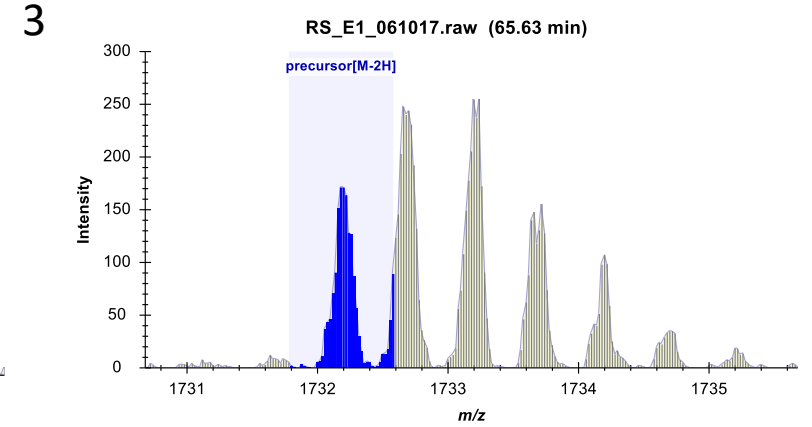
[M-2H] 1732.18



78a



78b

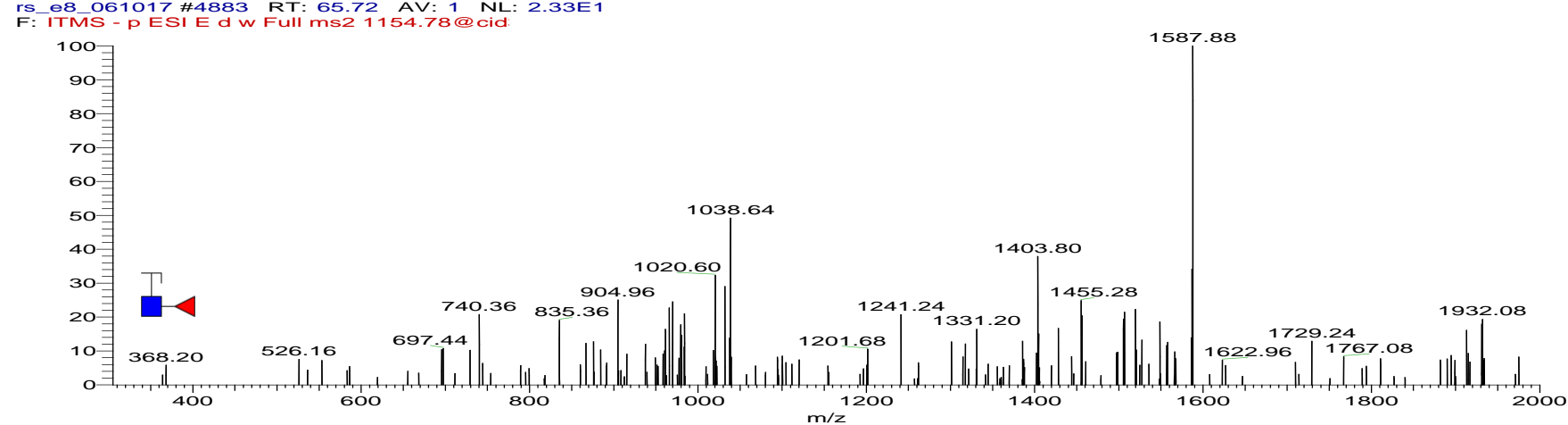
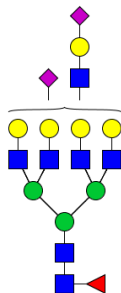


78c

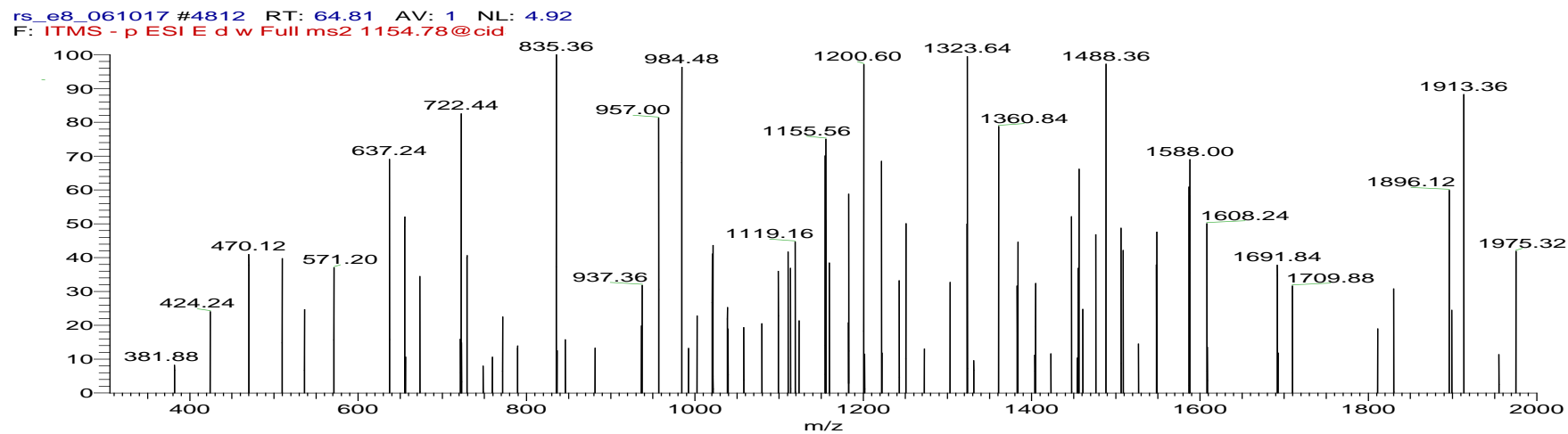
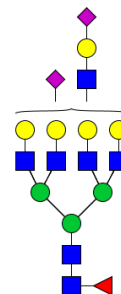


CID-MS/MS  
( $m/z$  1154.78<sup>3-</sup>)

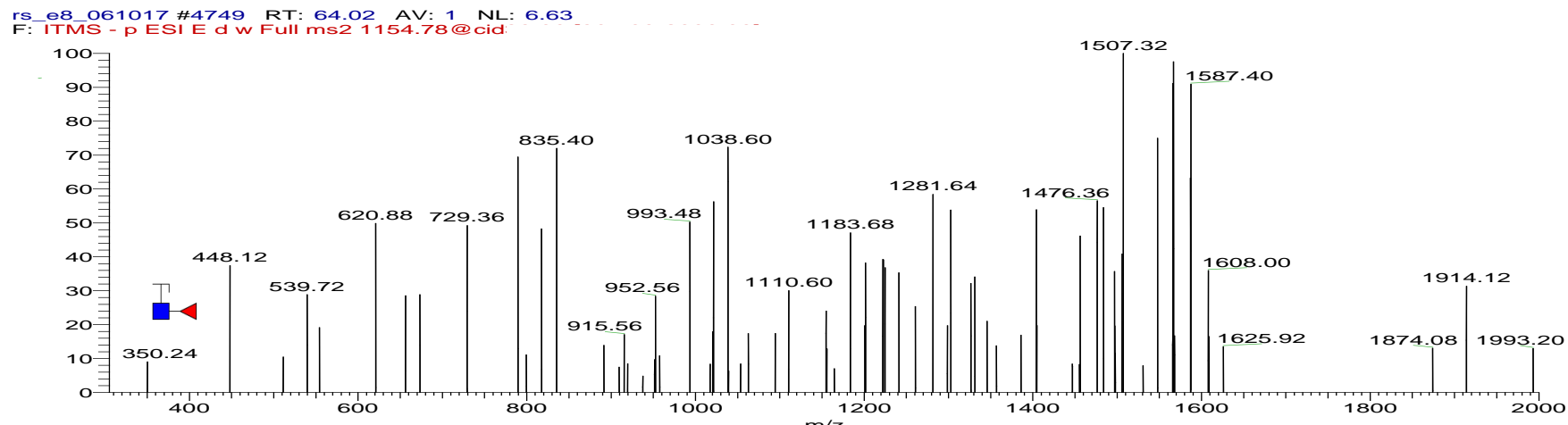
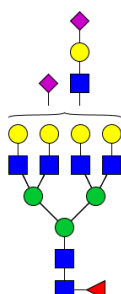
78a



78b



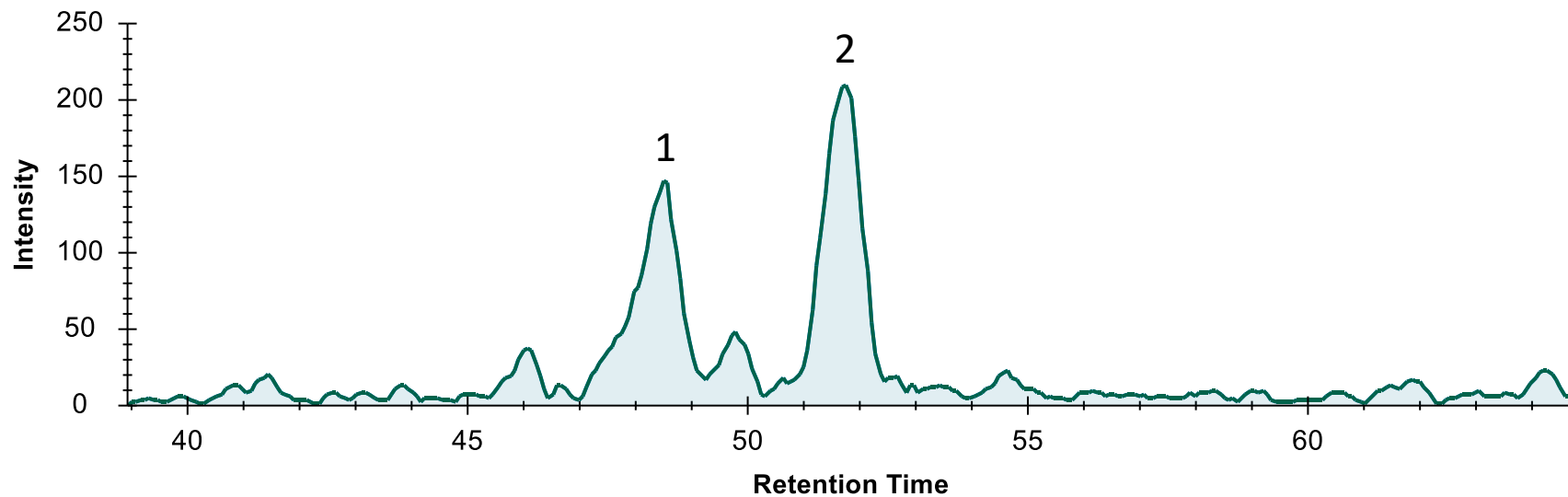
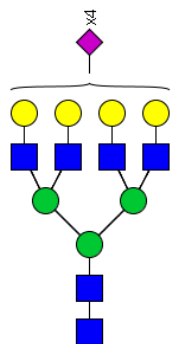
78c



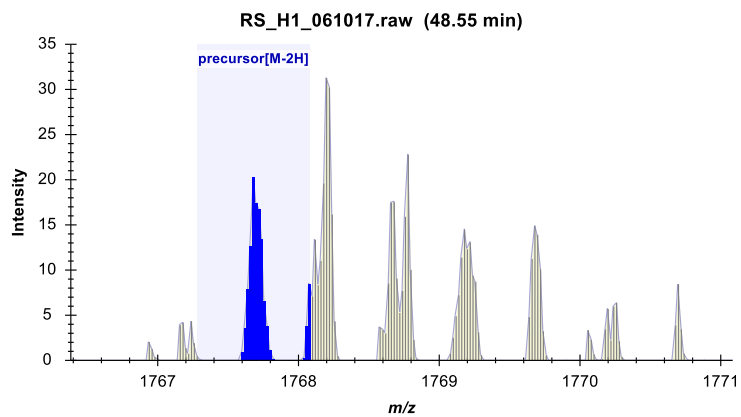
(Hex)4 (HexNAc)4 (NeuAc)4 + (Man)3(GlcNAc)2

No Glytoucan ID

[M-2H] 1767.68

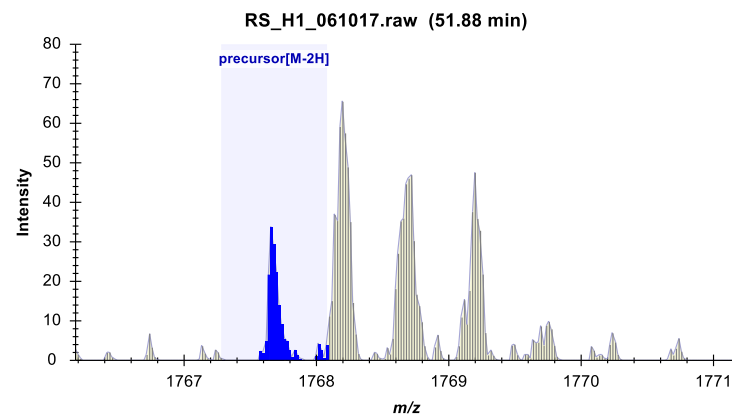


1



79a

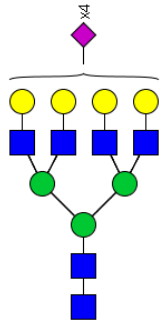
2



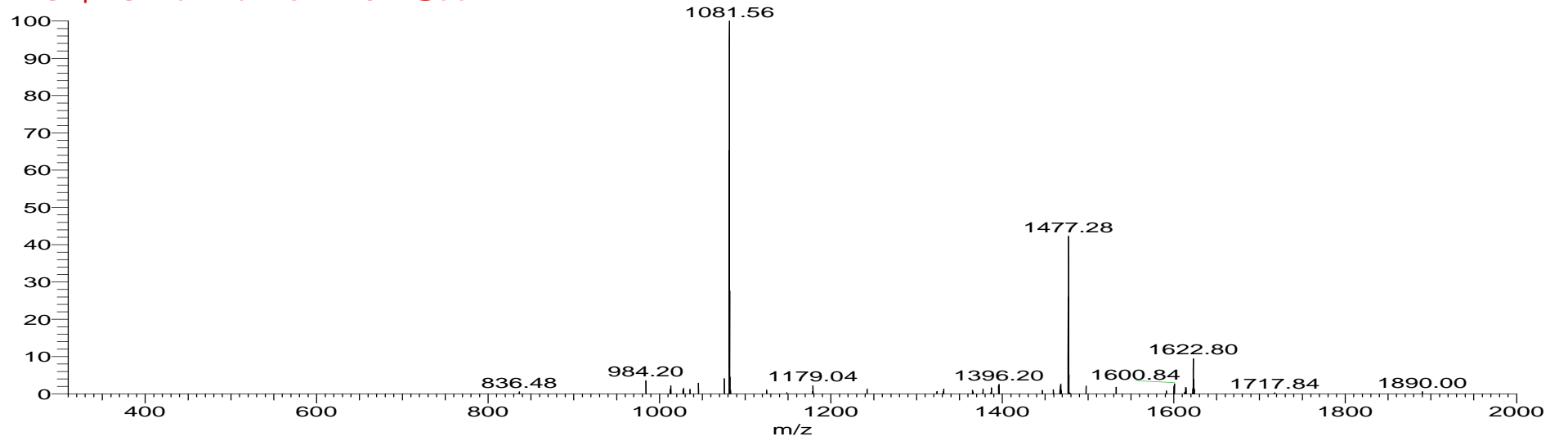
79b

CID-MS/MS  
( $m/z$  1178<sup>3-</sup>)

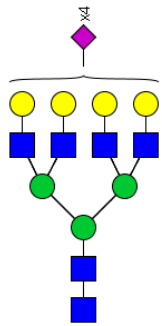
79a



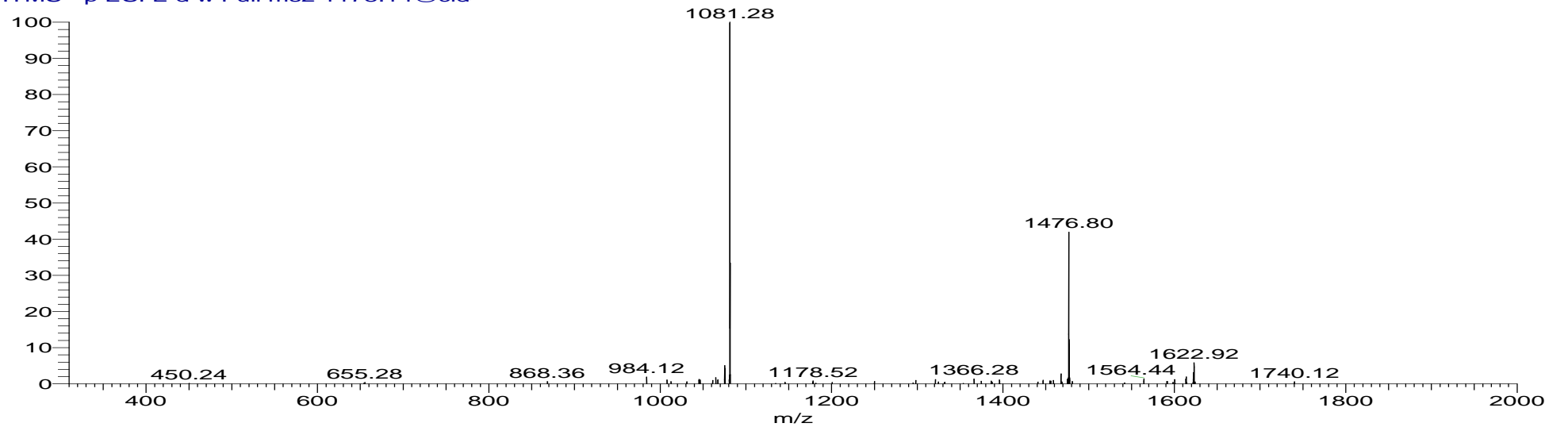
RS\_B1\_061017 #3575 RT: 48.40 AV: 1 NL: 1.76E2  
F: ITMS - p ESI E d w Full ms2 1178.41@cid



79b



RS\_B1\_061017 #3807 RT: 51.65 AV: 1 NL: 2.97E2  
T: ITMS - p ESI E d w Full ms2 1178.14@cid

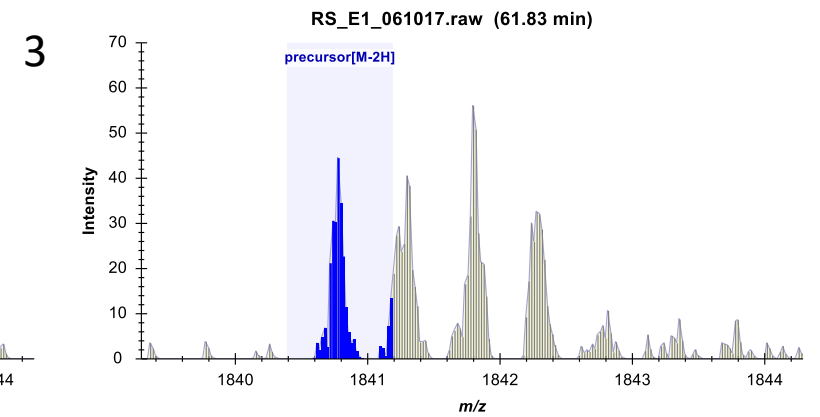
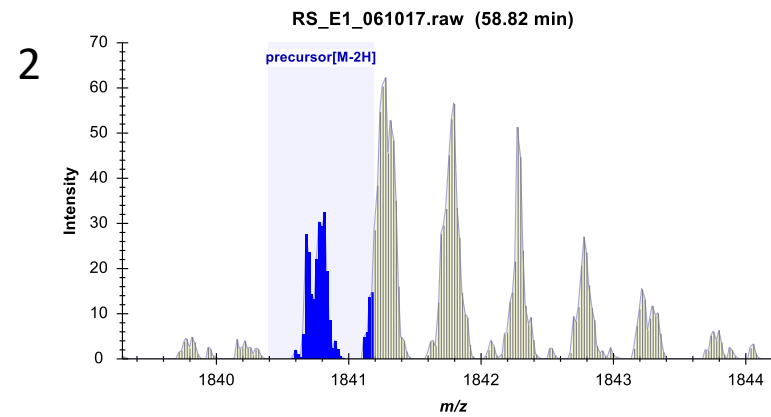
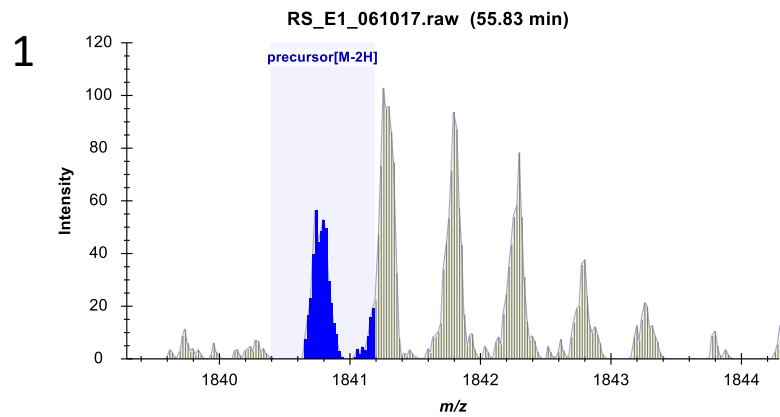
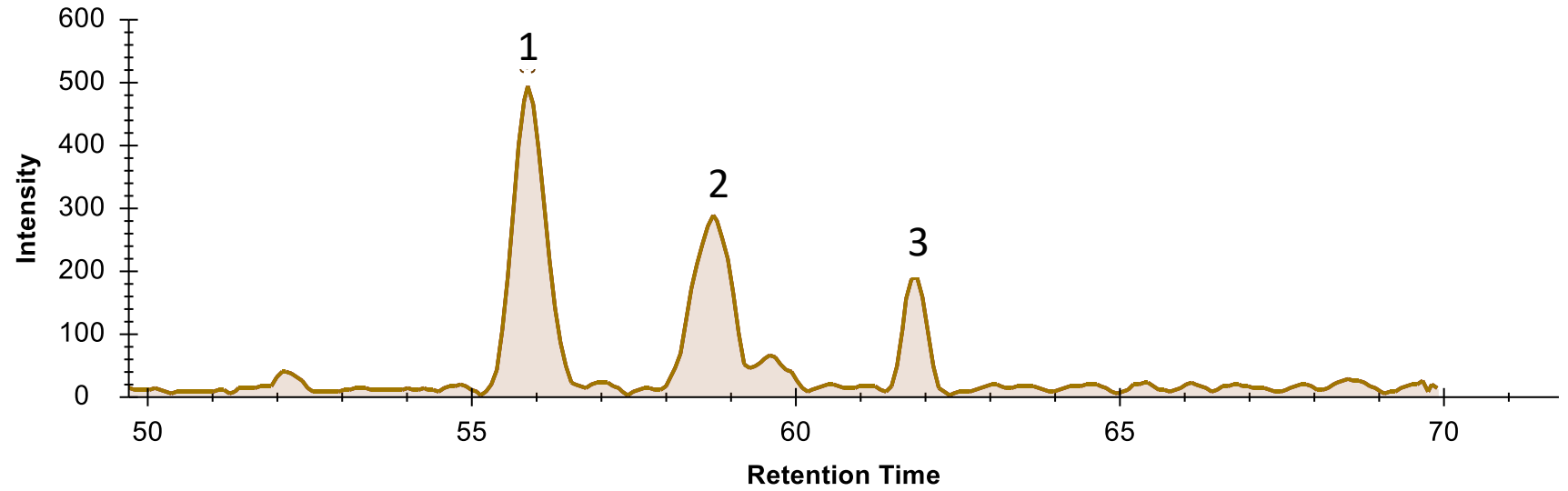
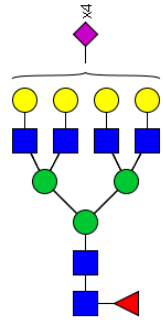


(Hex)4 (HexNAc)4 (Deoxyhexose)1 (NeuAc)4 + (Man)3(GlcNAc)2

No GlytouCan ID

[M-2H] 1840.79

[M-3H] 1227.09

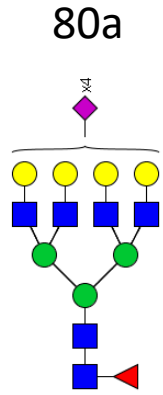


80a

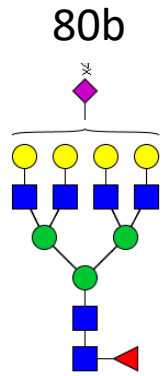
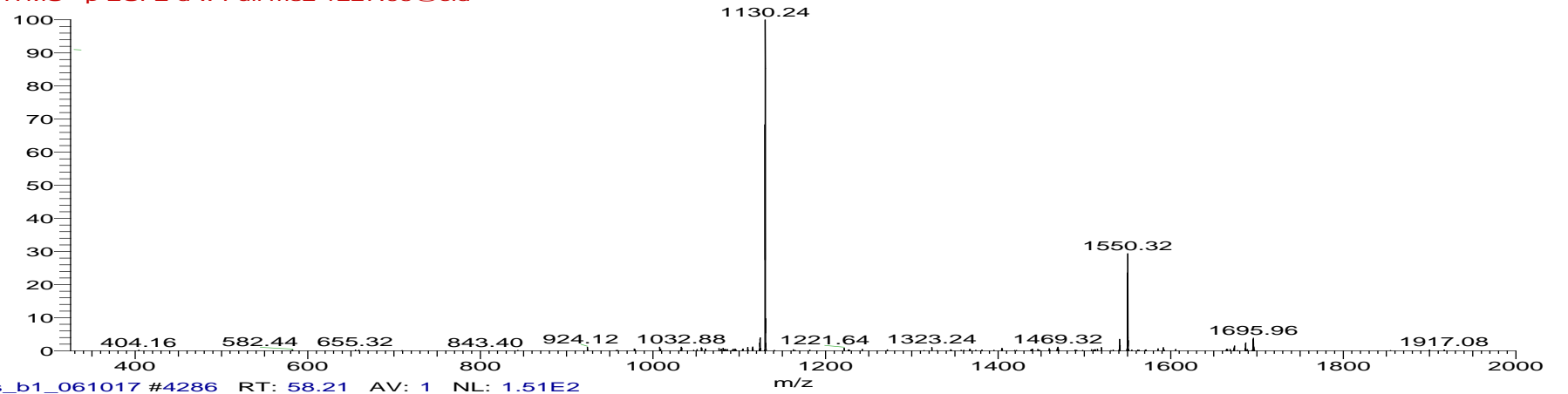
80b

80c

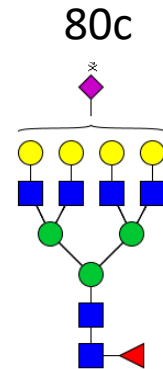
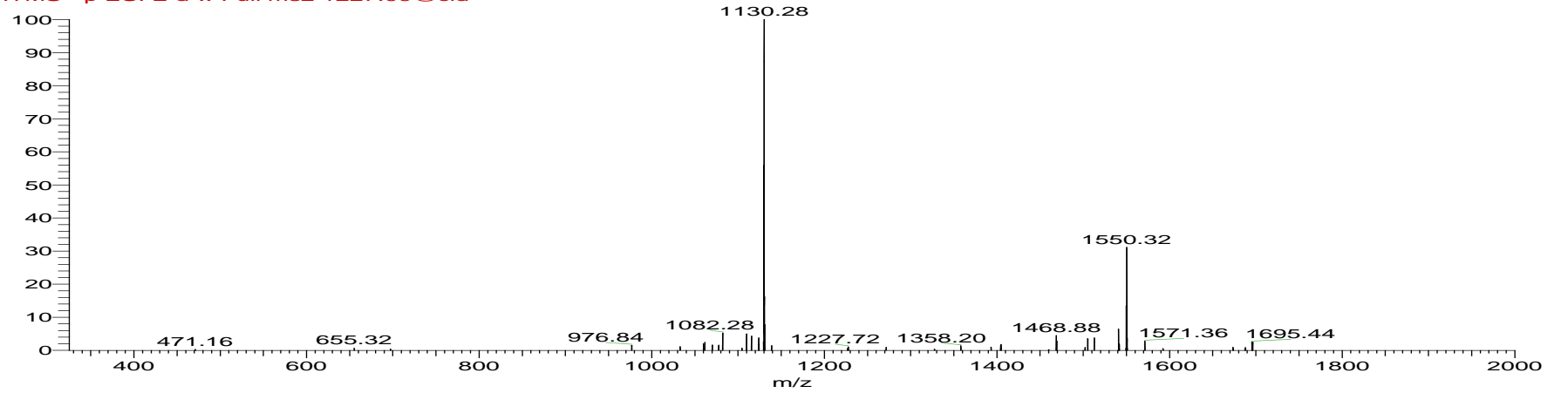
CID-MS/MS  
( $m/z$  1227.09<sup>3-</sup>)



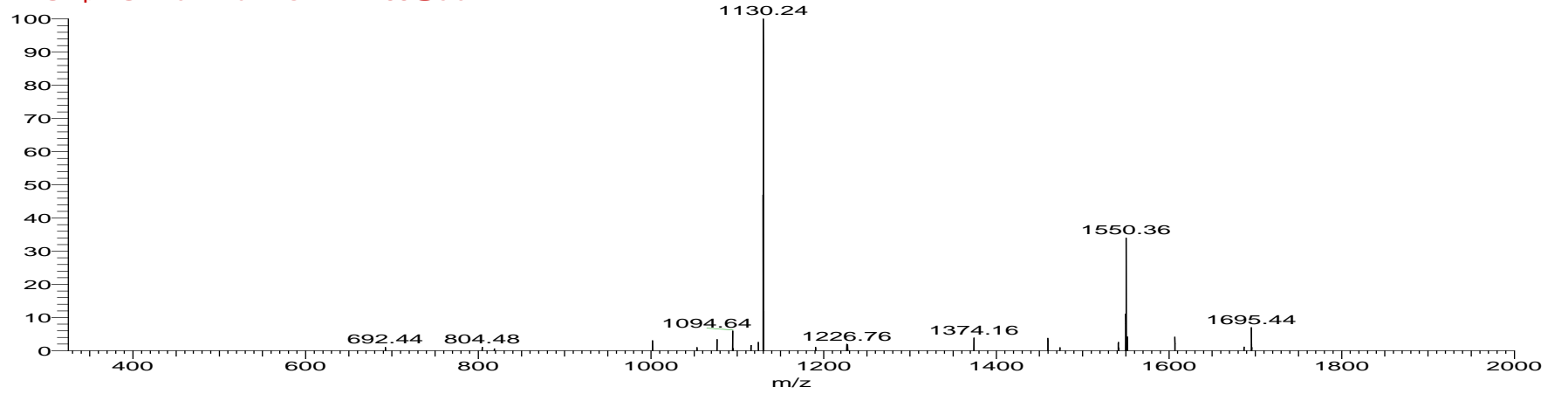
rs\_b1\_061017 #4064 RT: 55.19 AV: 1 NL: 8.05E2  
F: ITMS - p ESI E d w Full ms2 1227.09@cid



rs\_b1\_061017 #4286 RT: 58.21 AV: 1 NL: 1.51E2  
F: ITMS - p ESI E d w Full ms2 1227.09@cid



rs\_b1\_061017 #4552 RT: 61.69 AV: 1 NL: 7.33E1  
F: ITMS - p ESI E d w Full ms2 1227.09@cid



## Supplementary Data S2

### Spectra evidences for reduced O-glycans (alditols) released from PCa and BPH tissues

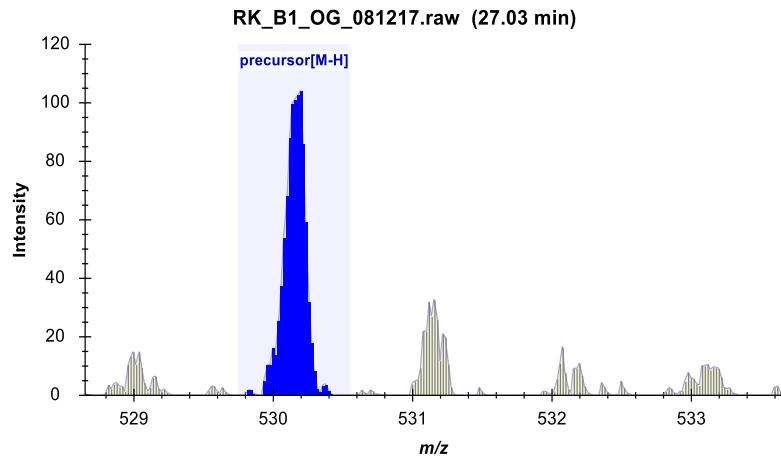
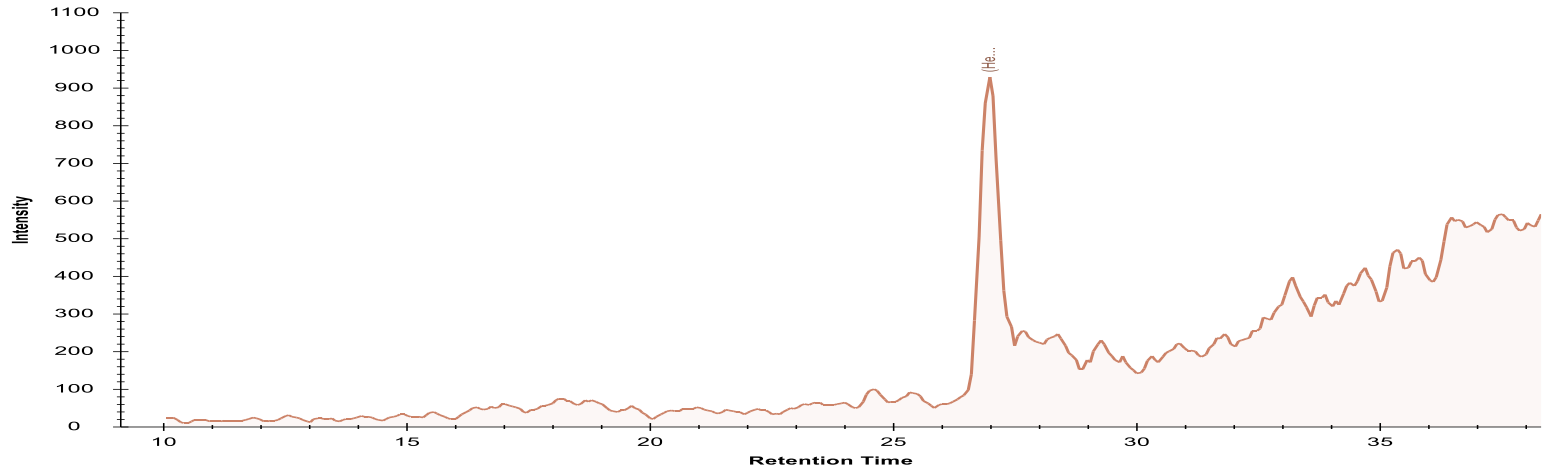
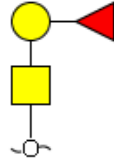
**The O-glycans reported in this paper were characterised and quantified by:**

- a. EIC (MS) and monoisotopic integration area (blue highlights in insert) (Skyline) (top)
- b. Retention time
- c. CID-MS/MS (-) manual annotation (bottom)

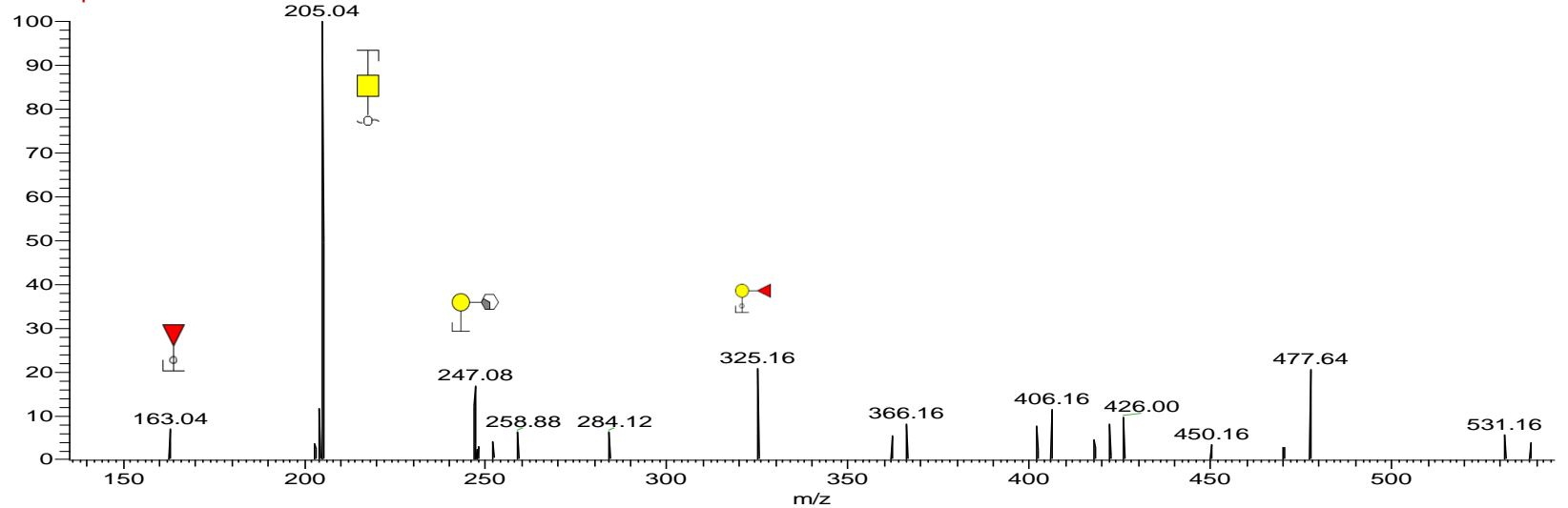
#### Supporting literature:

1. Hinneburg, H., Pedersen, J. L., Bokil, N. J., Pralow, A., Schirmeister, F., Kawahara, R., Rapp, E., Saunders, B. M., and Thaysen-Andersen, M. (2020) High-resolution longitudinal N- and O-glycoprofiling of human monocyte-to- macrophage transition. *Glycobiology*
2. Everest-Dass, A. V., Abrahams, J. L., Kolarich, D., Packer, N. H., and Campbell, M. P. (2013) Structural feature ions for distinguishing N- and O-linked glycan isomers by LC-ESI-IT MS/MS. *J Am Soc Mass Spectrom* **24**, 895-906

(Hex)1 (HexNAc)1 (Deoxyhexose)1  
GlytouCan ID: G05187DJ  
[M-H] 530.15

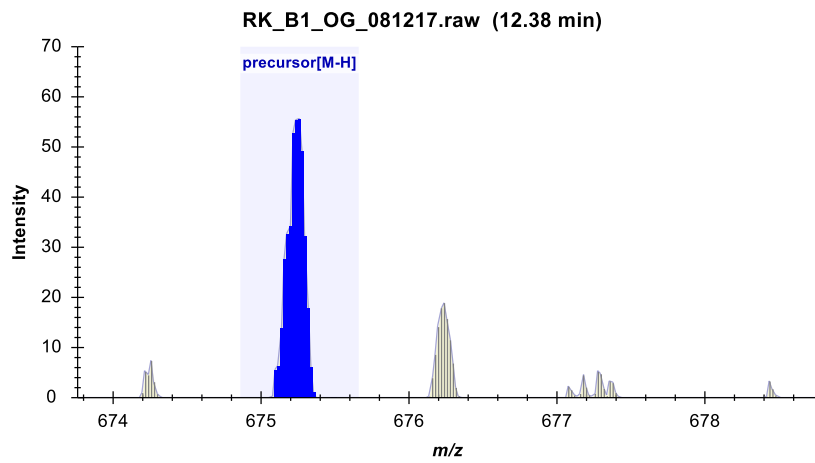
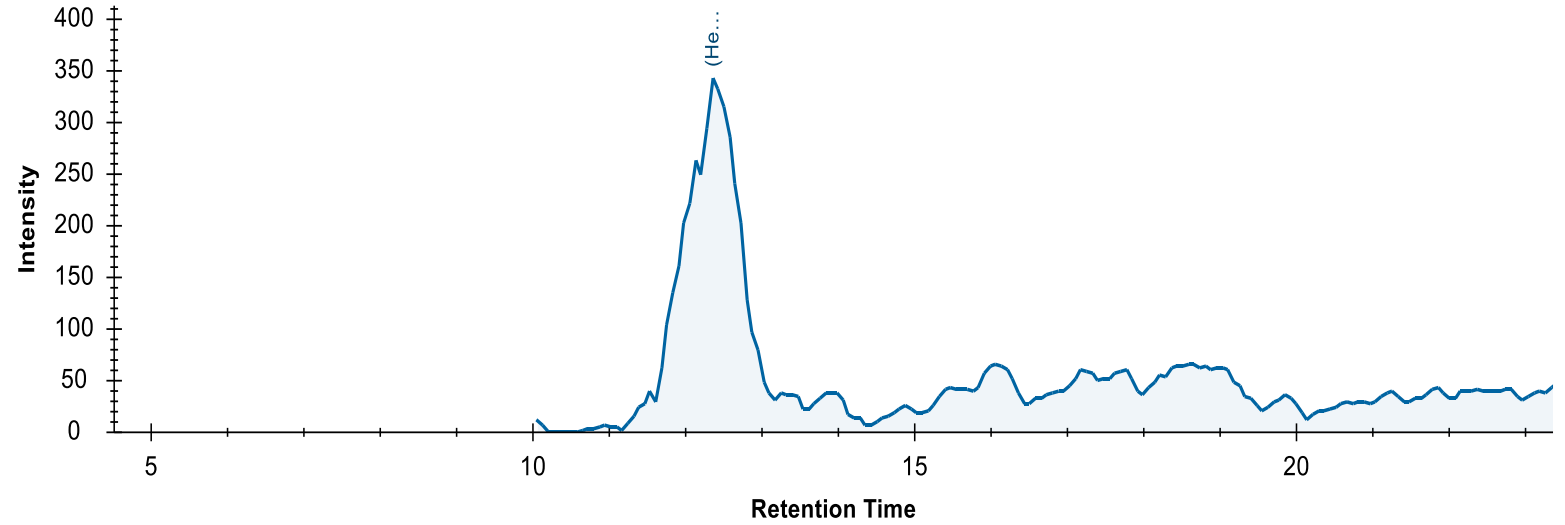
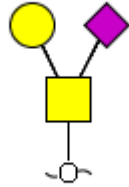


RK\_B1\_OG\_081217 #2165 RT: 26.95 AV: 1 NL: 2.40E1  
F: ITMS - p ESI E d w Full ms2 530.15@cid33.0



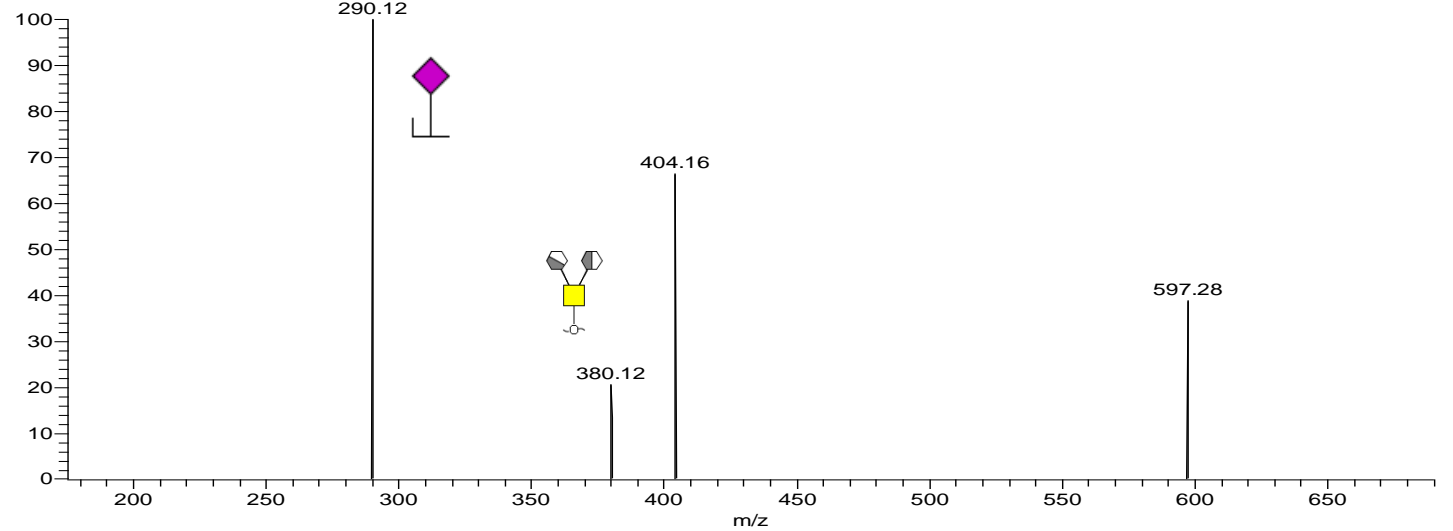
Glycan ID: 84

(Hex)1 (HexNAc)1 (NeuAc)1  
GlytouCan ID: G65285QO  
[M-H] 675.26



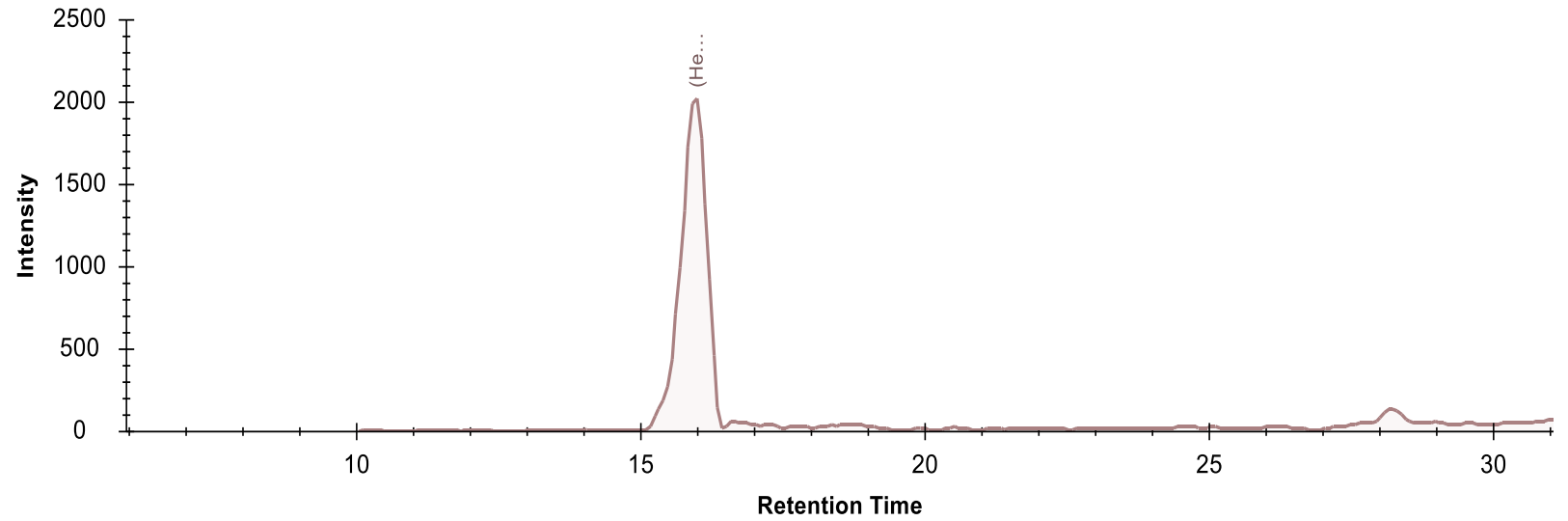
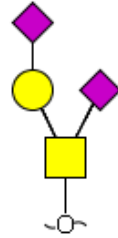
Glycan ID: 85

RK\_B1\_OG\_081217 #999 RT: 12.43 AV: 1 NL: 3.84  
F: ITMS - p ESIE d w Full ms2 675.22@cid33.0()

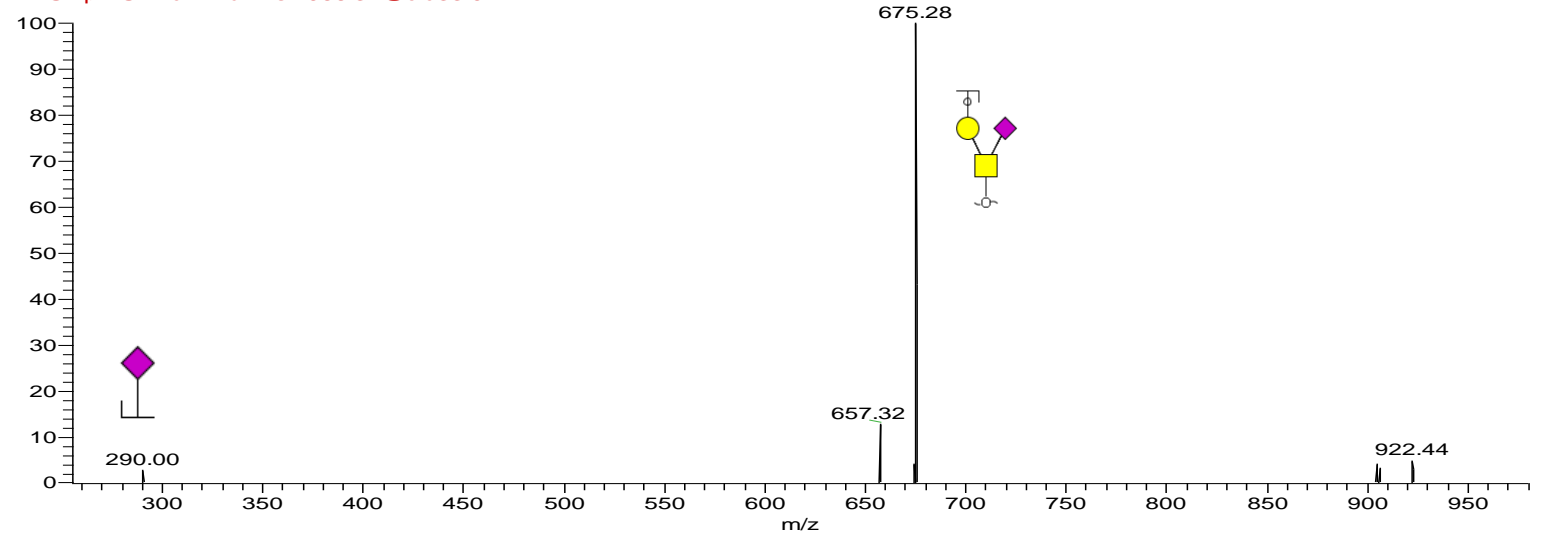
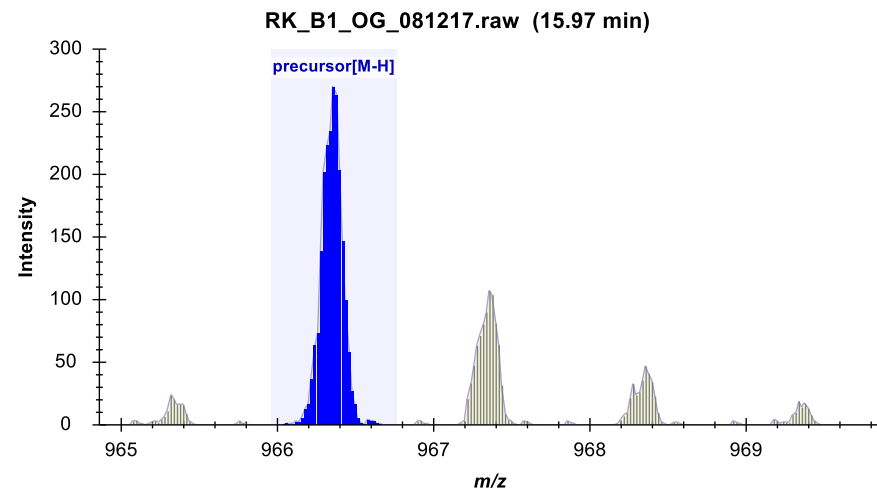




(Hex)1 (HexNAc)1 (NeuAc)2  
GlytouCan ID: G84906ML  
[M-H] 966.36

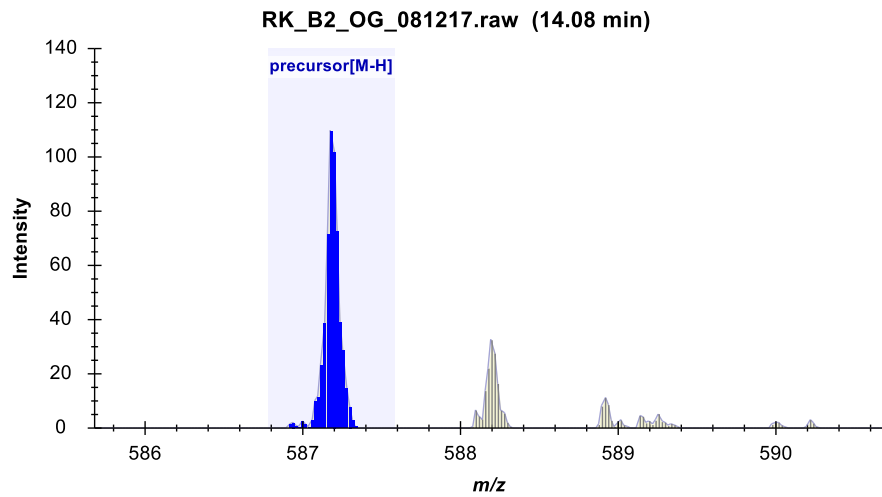
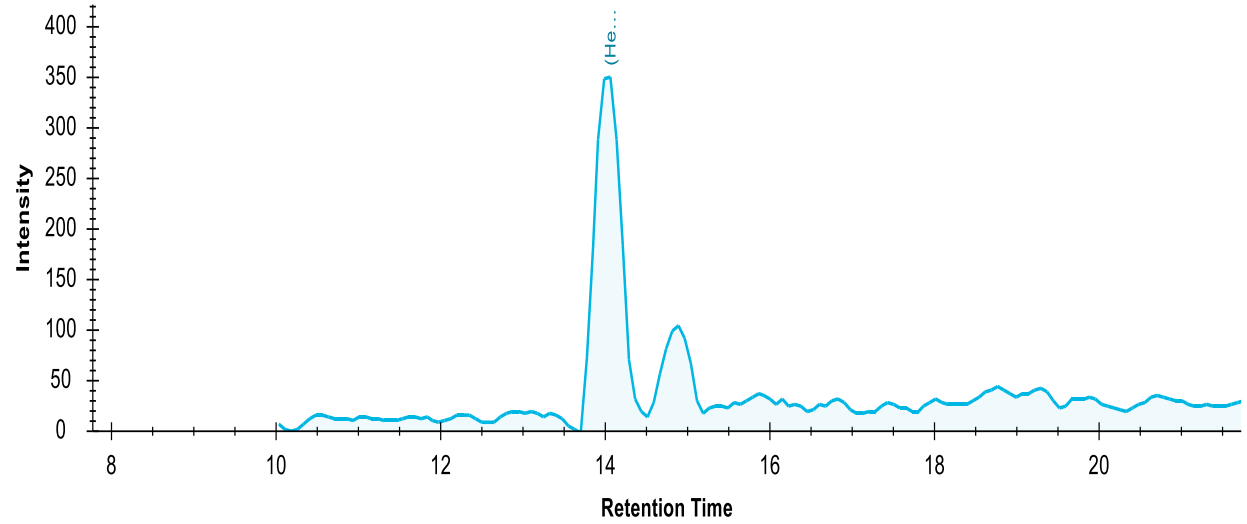
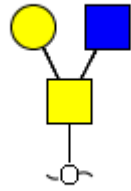


RK\_B1\_OG\_081217 #1286 RT: 16.01 AV: 1 NL: 5.21E1  
F: ITMS - p ESI E d w Full ms2 966.34 @cid33.0



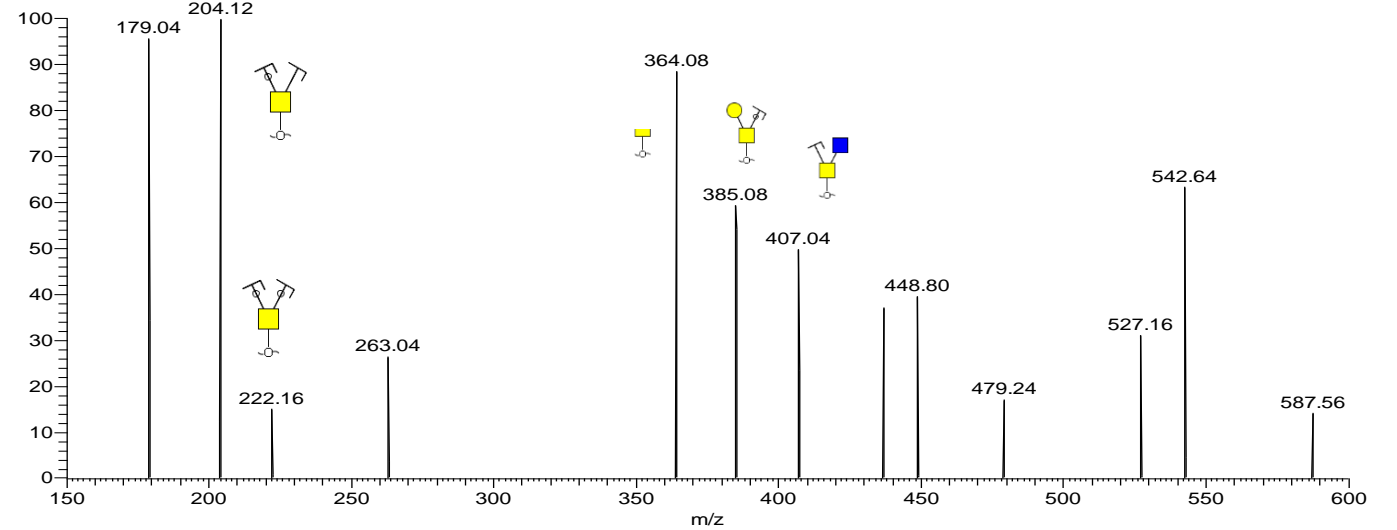
Glycan ID: 86

(Hex)1 (HexNAc)2  
GlytouCan ID: G31601FB  
[M-H] 587.18

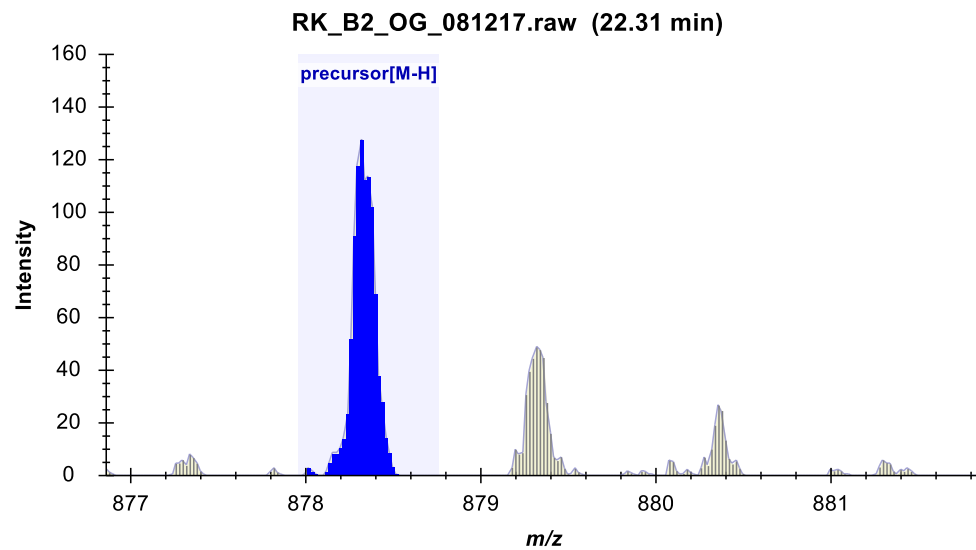
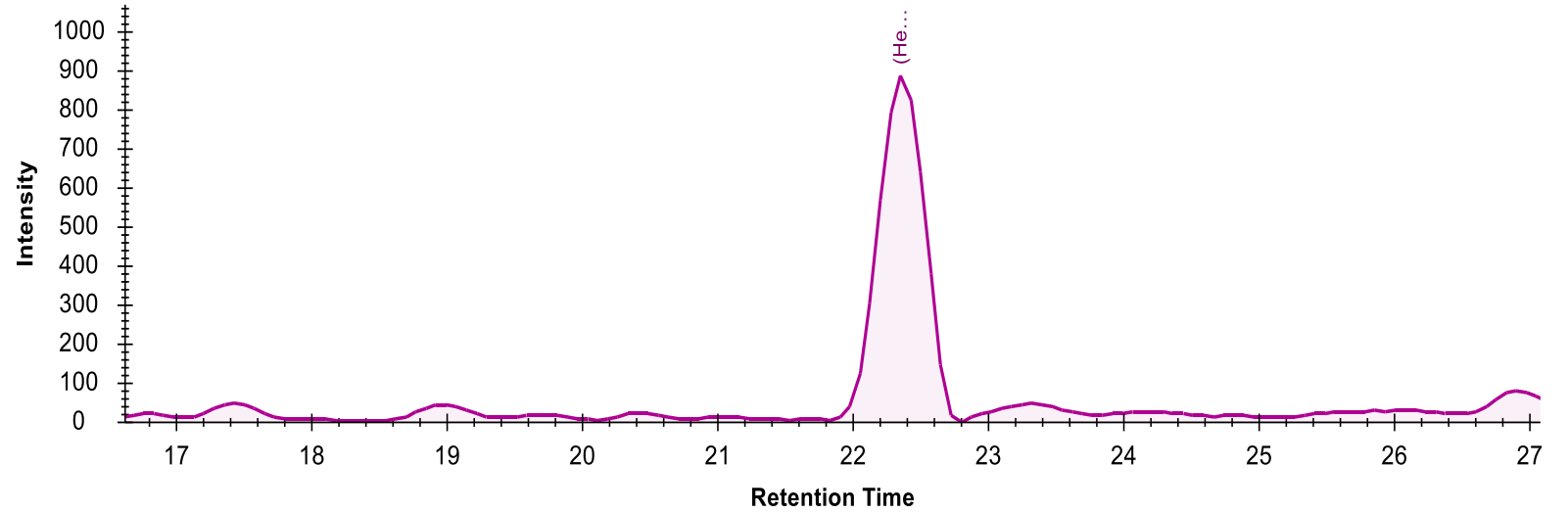
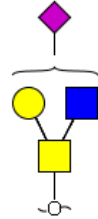


Glycan ID: 87

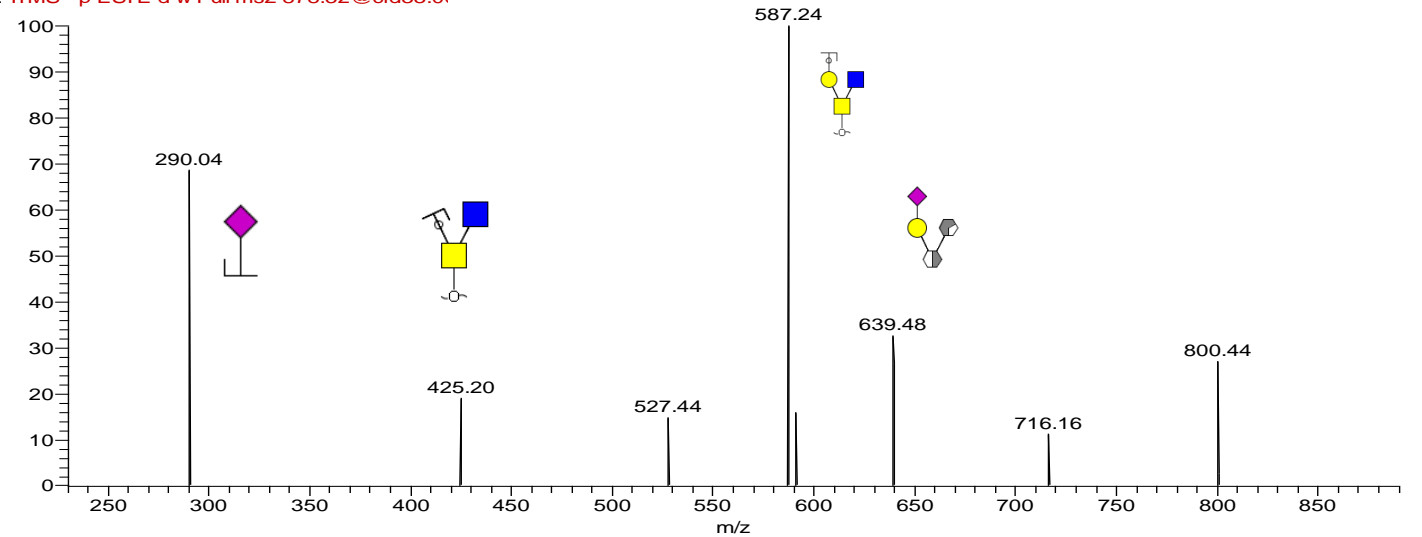
RK\_B2\_OG\_081217 #1130 RT: 14.05 AV: 1 NL: 4.95  
F: ITMS - p ESI E d w Full ms2 587.18@cid33.0f



(Hex)1 (HexNAc)2 (NeuAc)1  
GlytouCan ID: G35679QA  
[M-H] 878.36

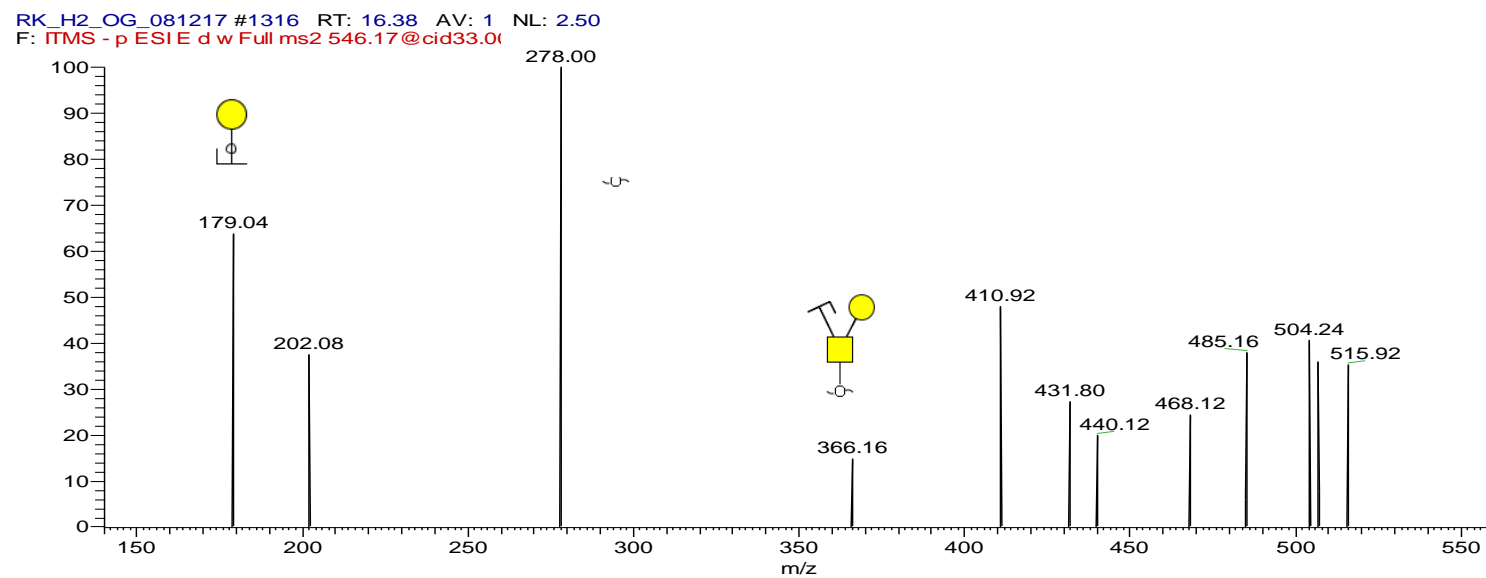
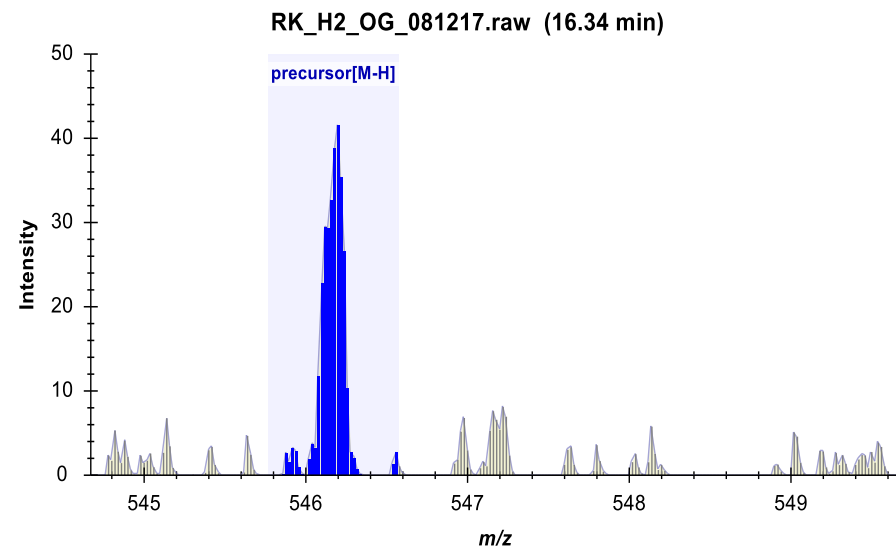
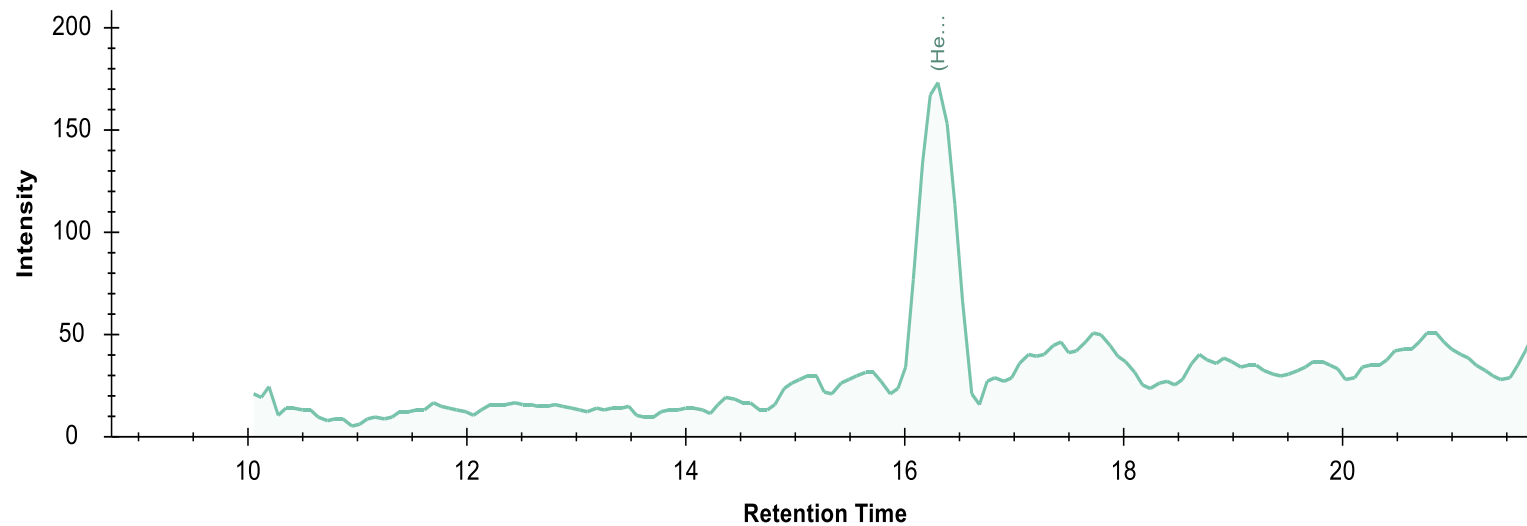
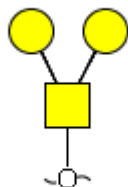


RK\_B2\_OG\_081217 #1796 RT: 22.35 AV: 1 NL: 4.44  
F: ITMS - p ESI E d w Full ms2 878.32@cid33.0f



Glycan ID: 88

(Hex)2 (HexNAc)1  
No GlycoCan ID  
546.17

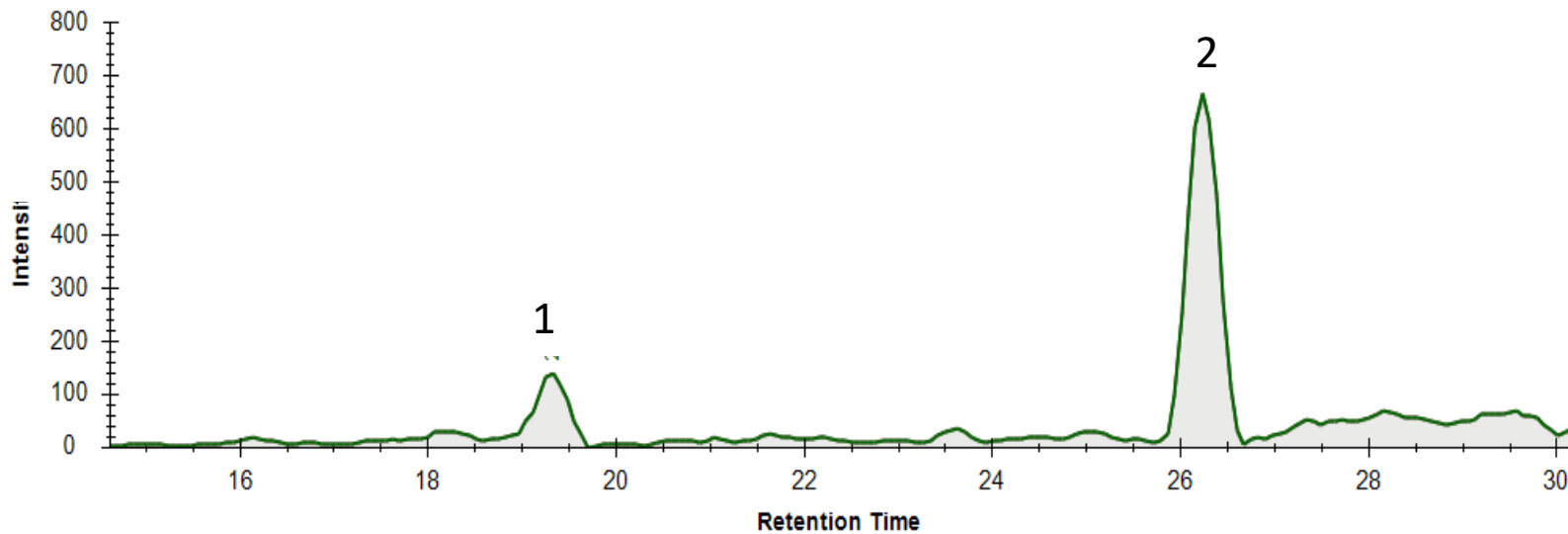
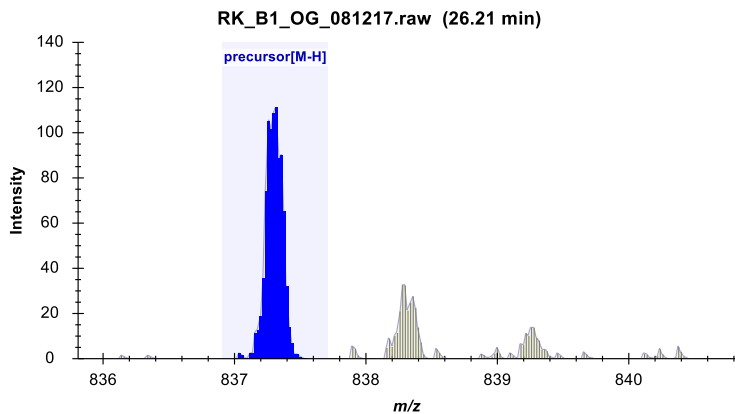


Glycan ID: 89

(Hex)2 (HexNAc)1 (NeuAc)1  
 No GlytouCan ID  
 [M-H] 837.31

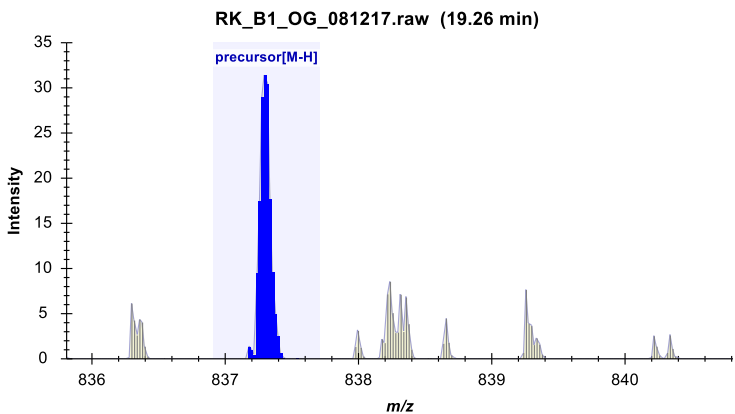


1

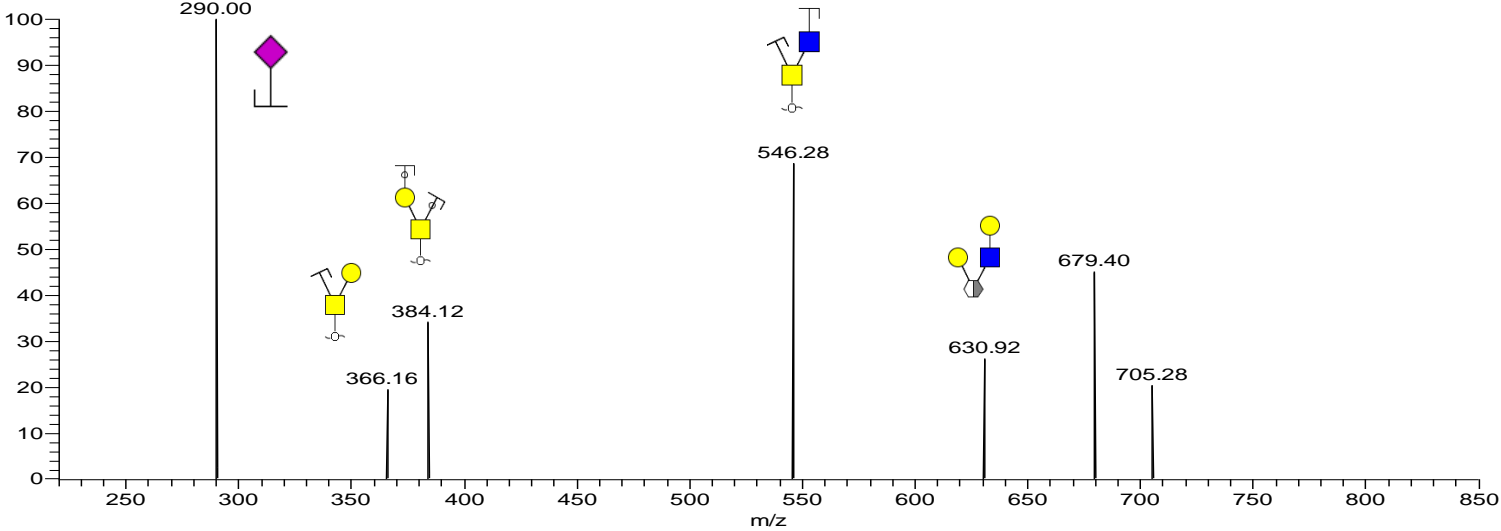


90a

2

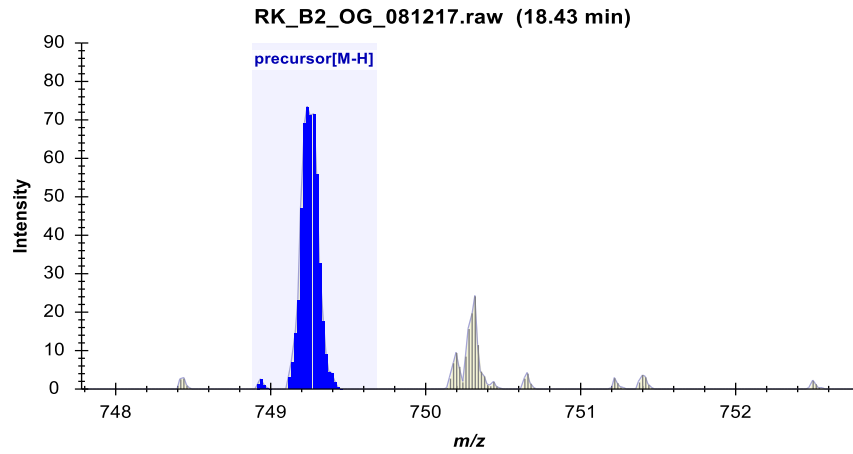
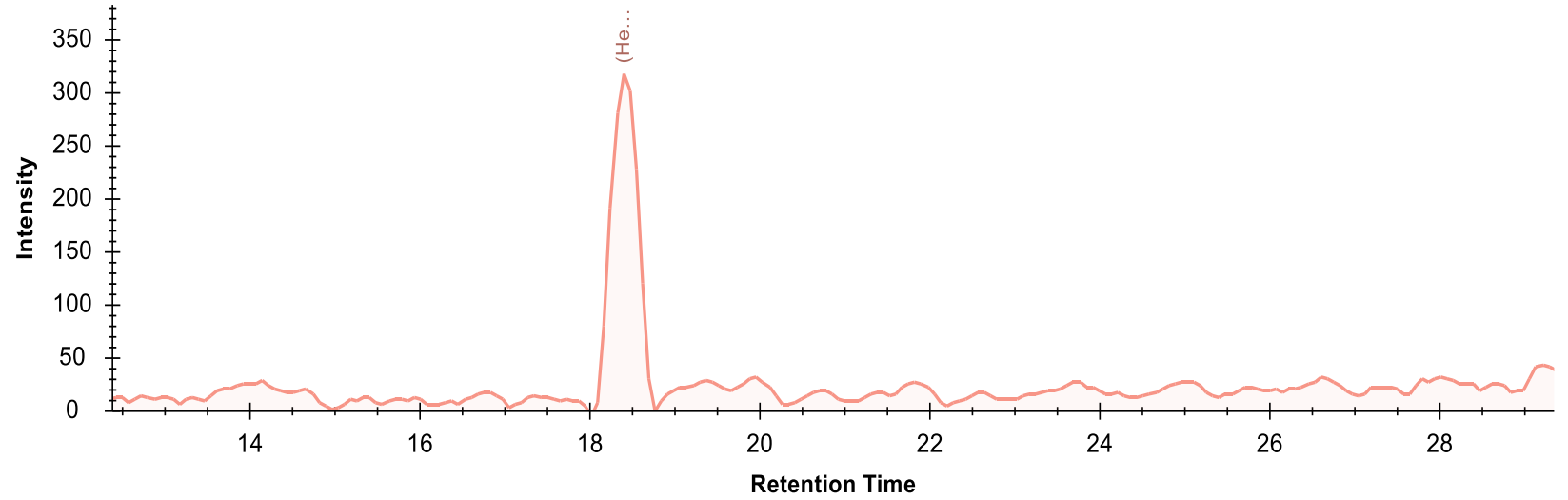
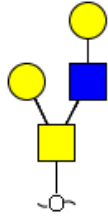


RK\_B1\_OG\_081217 #2114 RT: 26.33 AV: 1 NL: 3.00  
 F: ITMS - p ESI E d w Full ms2 837.29@cid33.0f

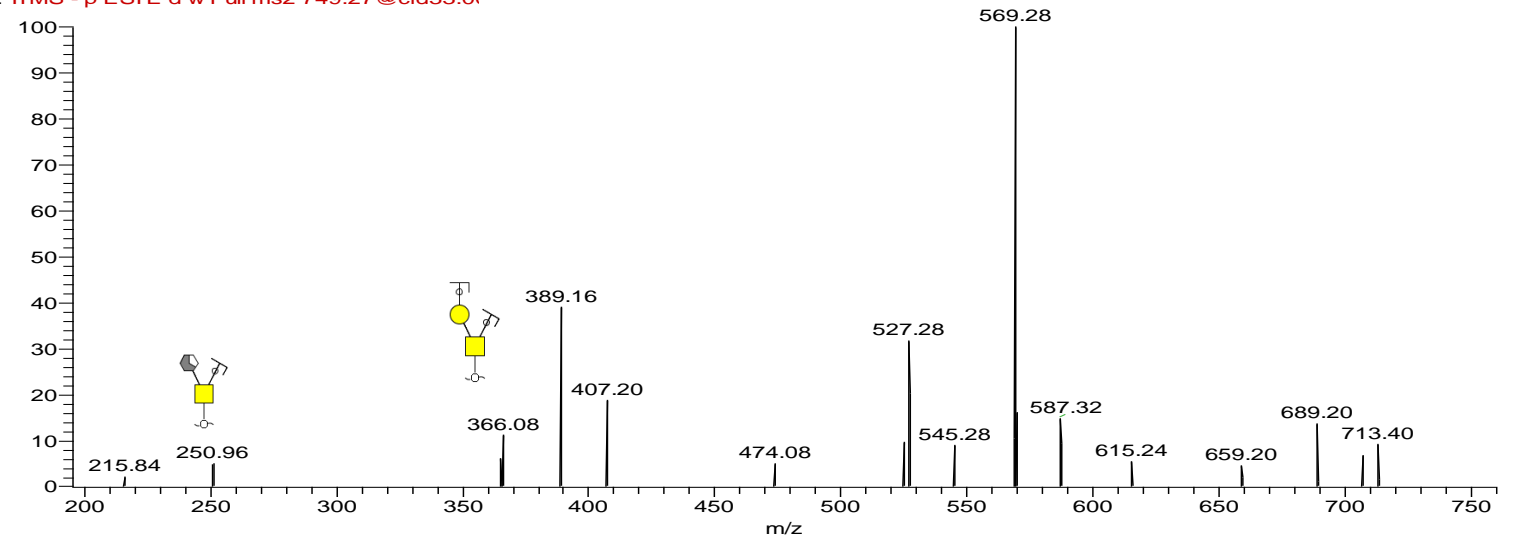


90b

(Hex)2 (HexNAc)2  
GlytouCan ID: G18132YR  
[M-H] 749.28

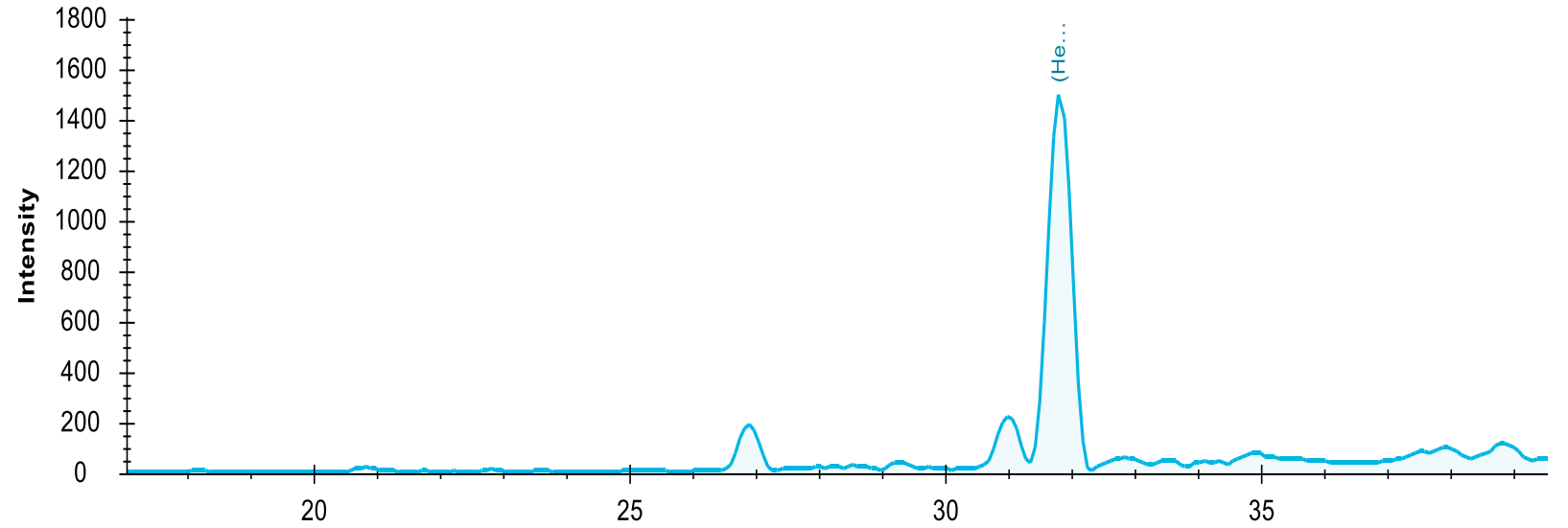
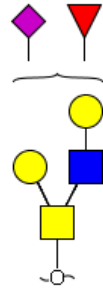


RK\_B1\_OG\_081217 #1493 RT: 18.58 AV: 1 NL: 2.28E1  
F: ITMS - p ESI E d w Full ms2 749.27@cid33.0f

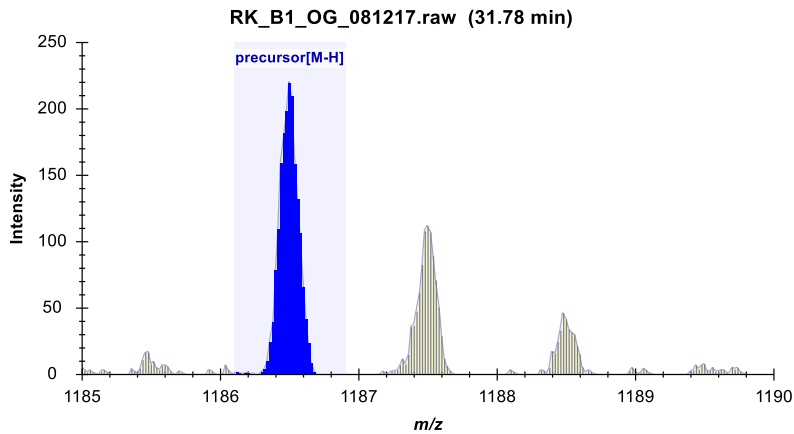


Glycan ID: 91

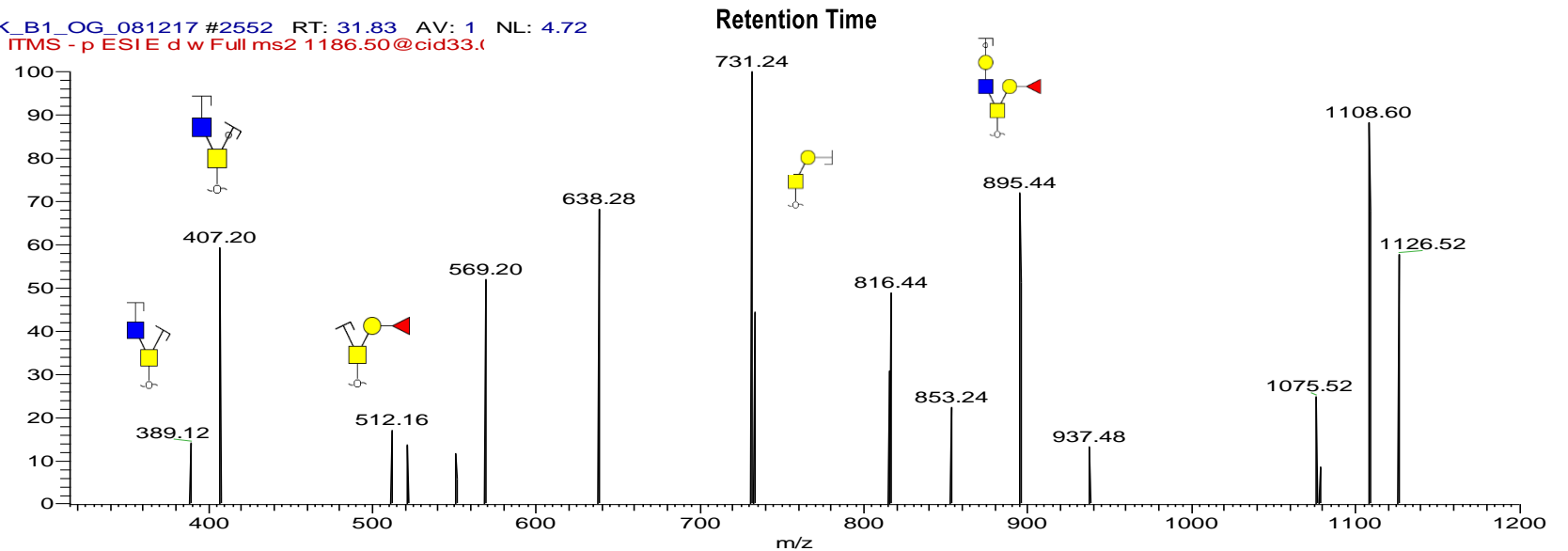
(Hex)2 (HexNAc)2 (Deoxyhexose)1 (NeuAc)1  
 GlytouCan ID: G02353KU  
 [M-H] 1186.5



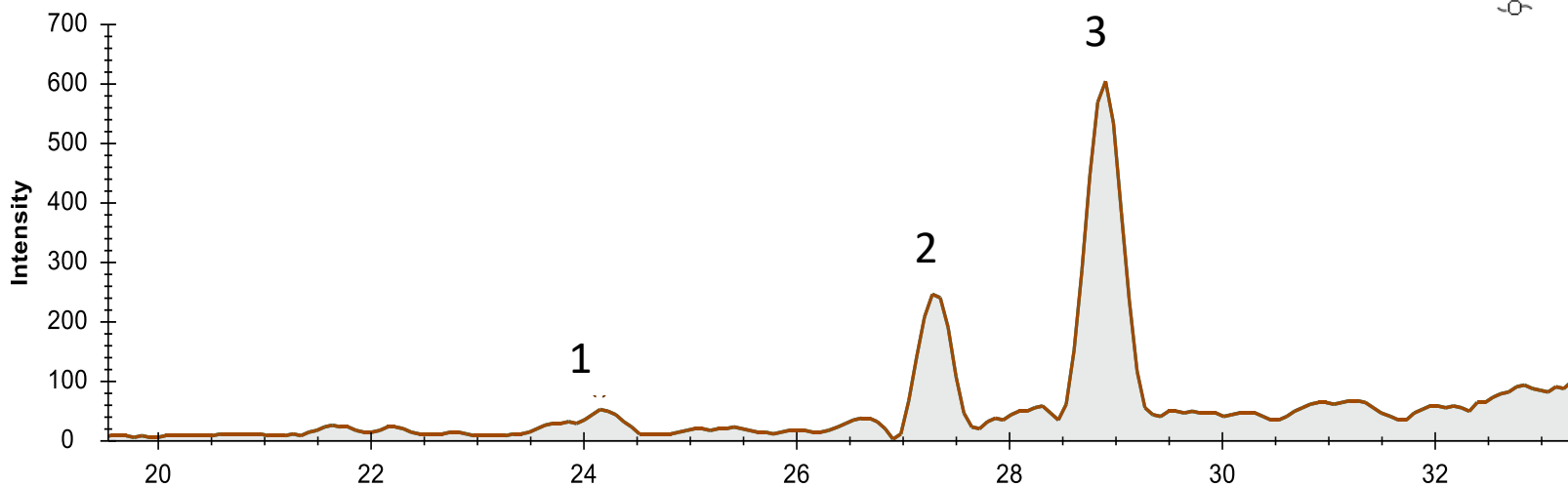
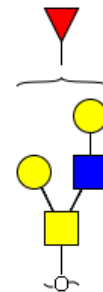
RK\_B1\_OG\_081217 #2552 RT: 31.83 AV: 1 NL: 4.72  
 F: ITMS - p ESI E d w Full ms2 1186.50@cid33.(



Glycan ID: 92

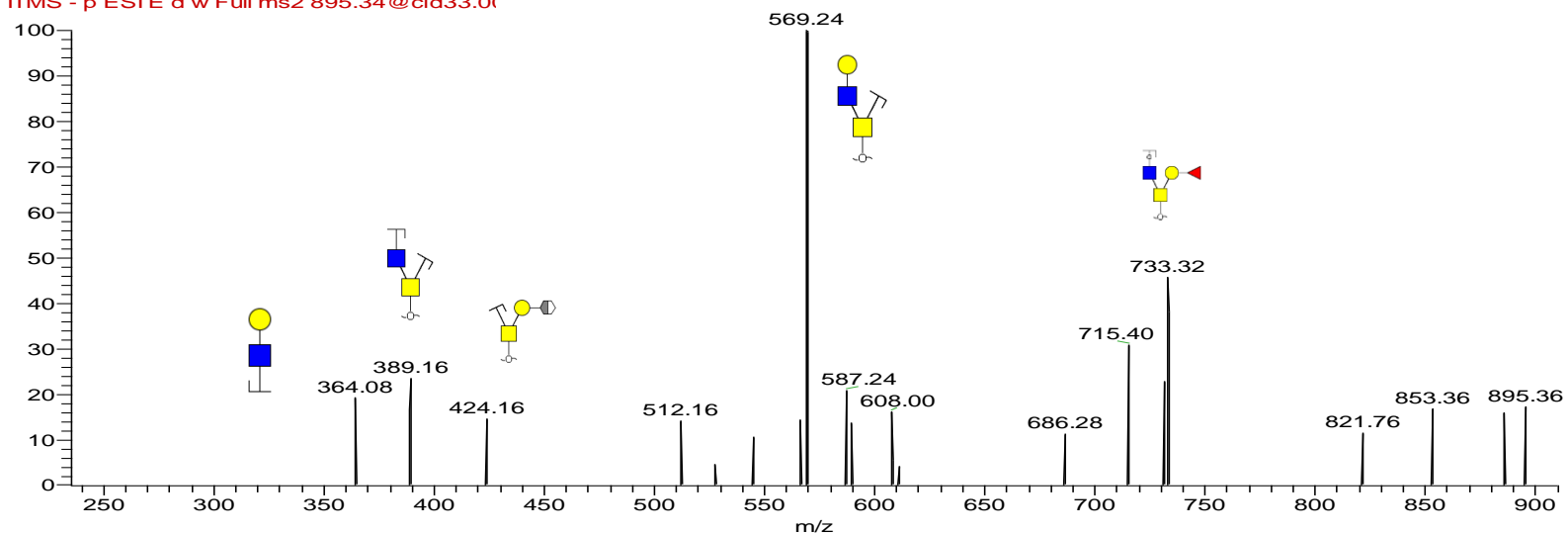


(Hex)2 (HexNAc)2 (Deoxyhexose)1  
 GlytouCan ID: G38812YS  
 [M-H] 895.34

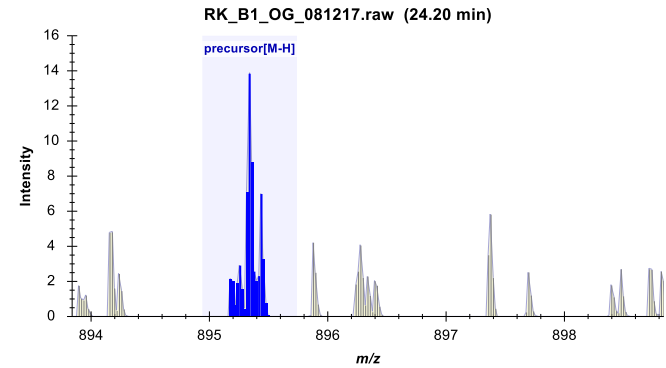


RK\_B1\_OG\_081217 #2328 RT: 28.97 AV: 1 NL: 8.95  
 F: ITMS - p ESI E d w Full ms2 895.34@cid33.0f

Retention Time

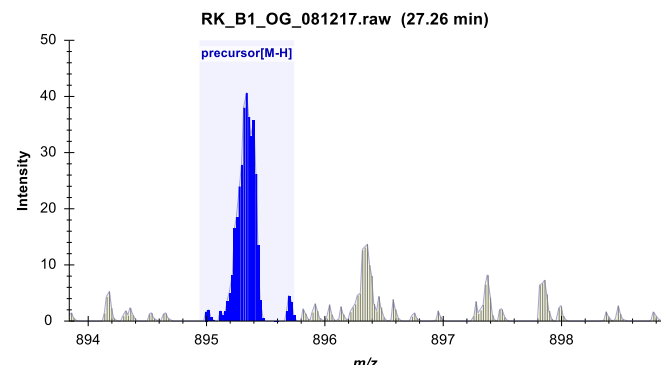


1



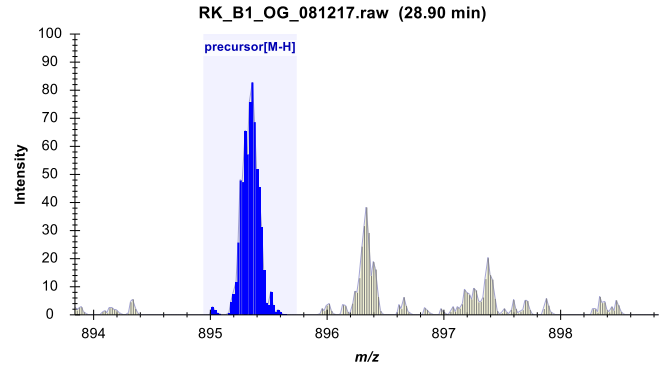
93a

2



93b

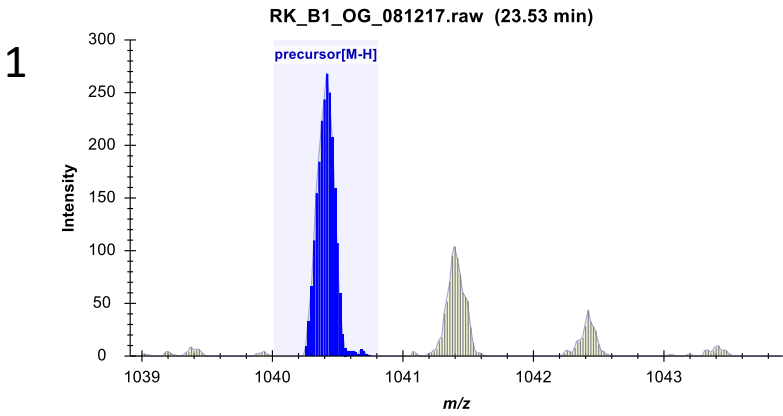
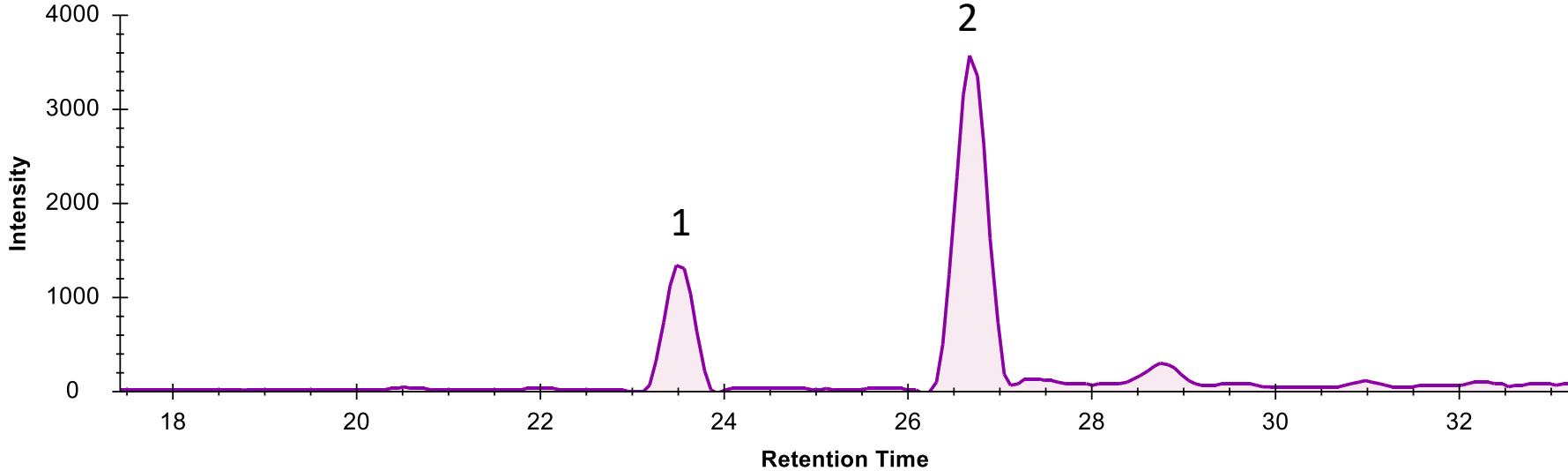
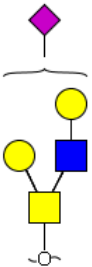
3



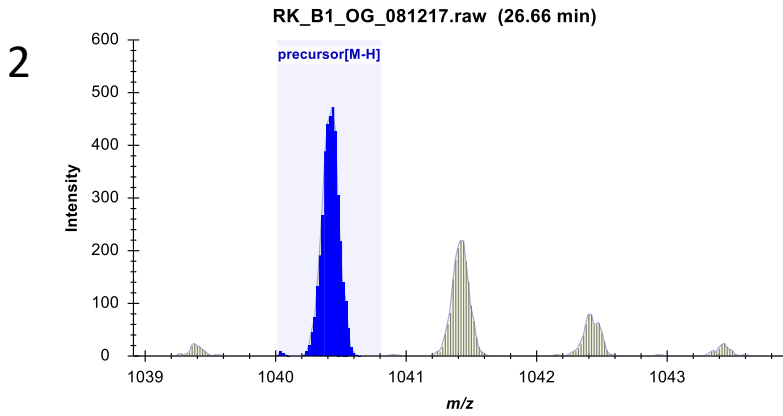
93c



(Hex)2 (HexNAc)2 (NeuAc)1  
GlytouCan ID: G08140FC  
[M-H] 1040.41



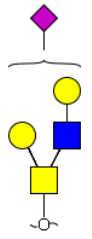
94a



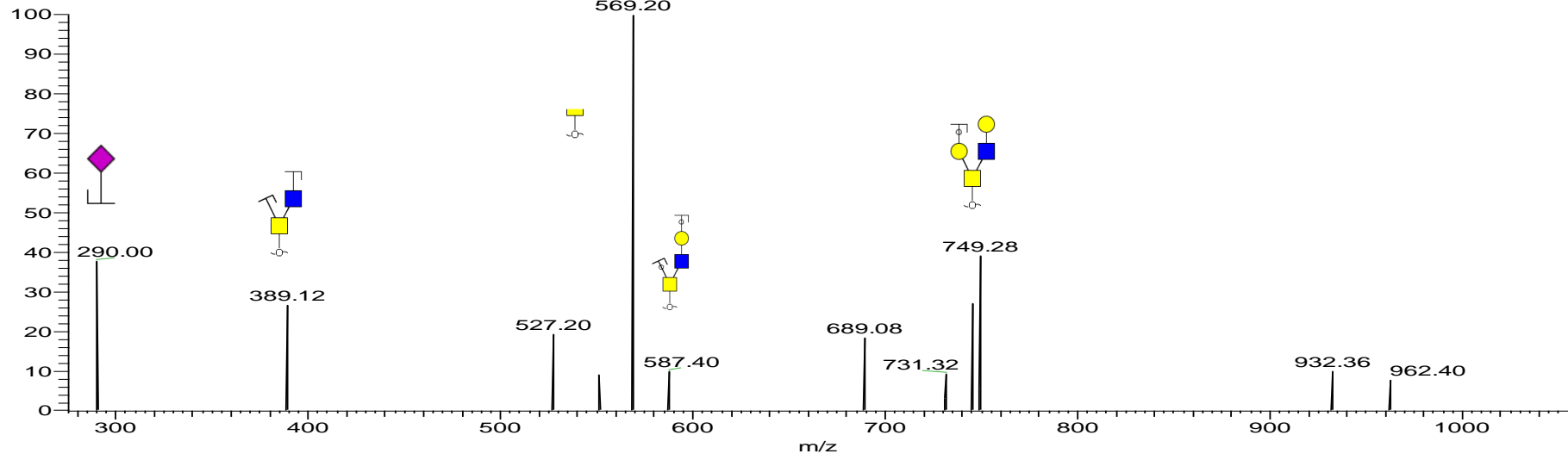
94b

CID-MS/MS  
( $m/z$  1040.41<sup>1-</sup>)

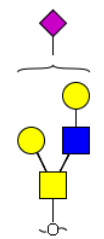
94a



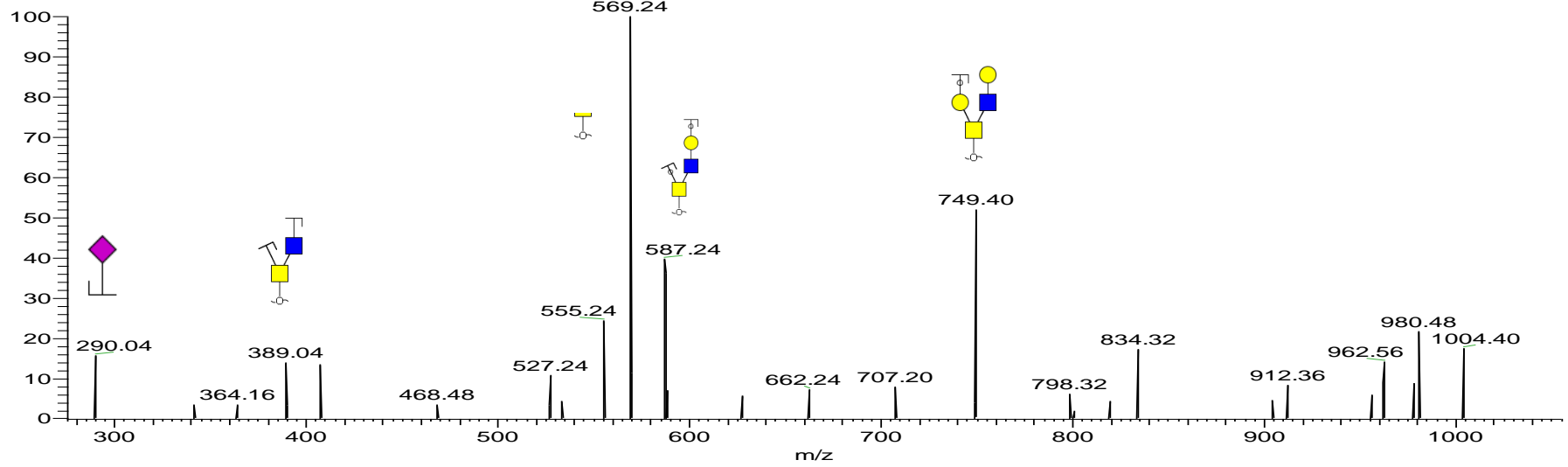
RK\_B1\_OG\_081217 #1892 RT: 23.57 AV: 1 NL: 9.38  
F: ITMS - p ESIE d w Full ms2 1040.41 @cid33.(



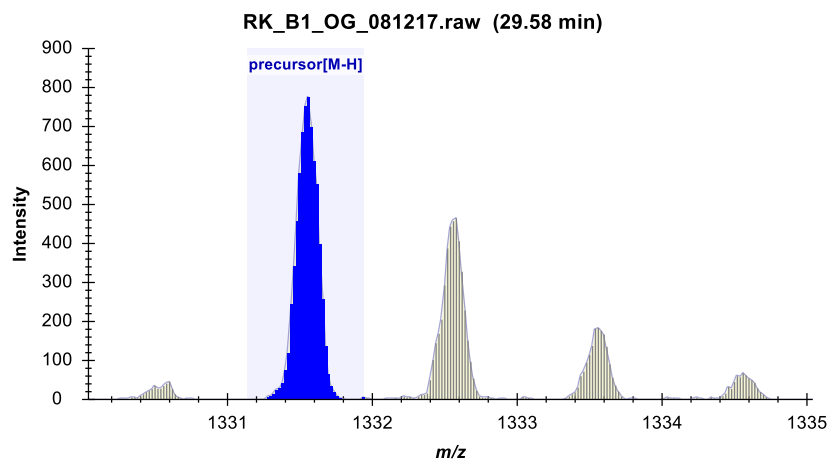
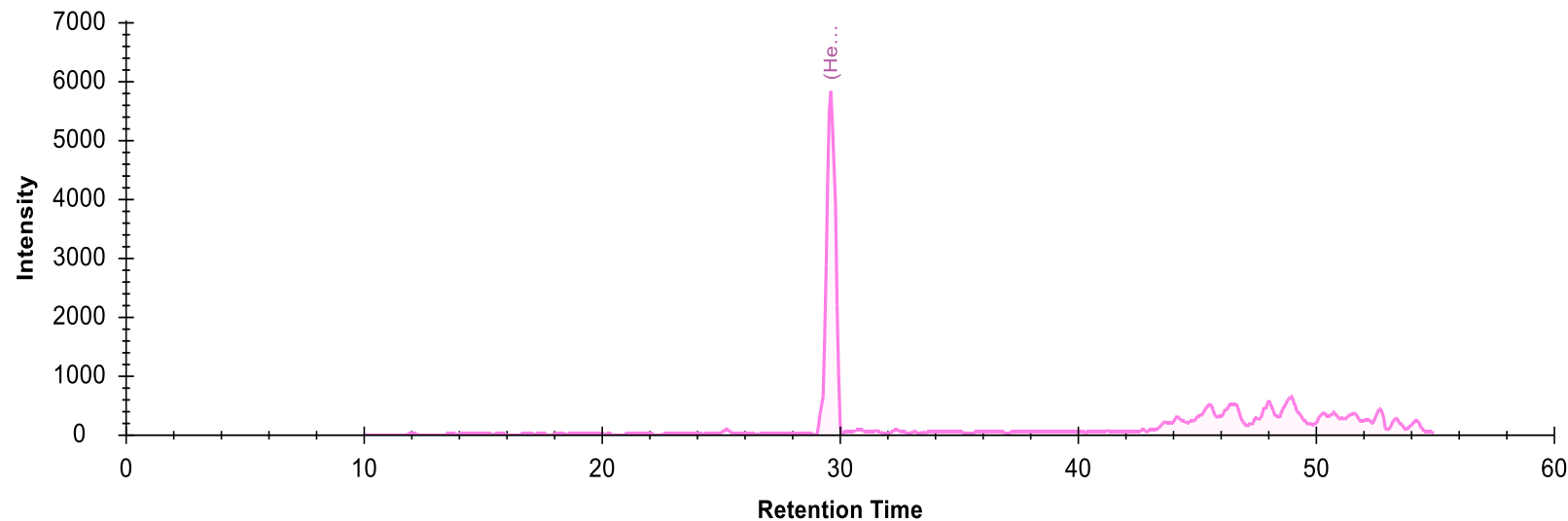
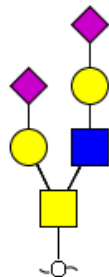
94b



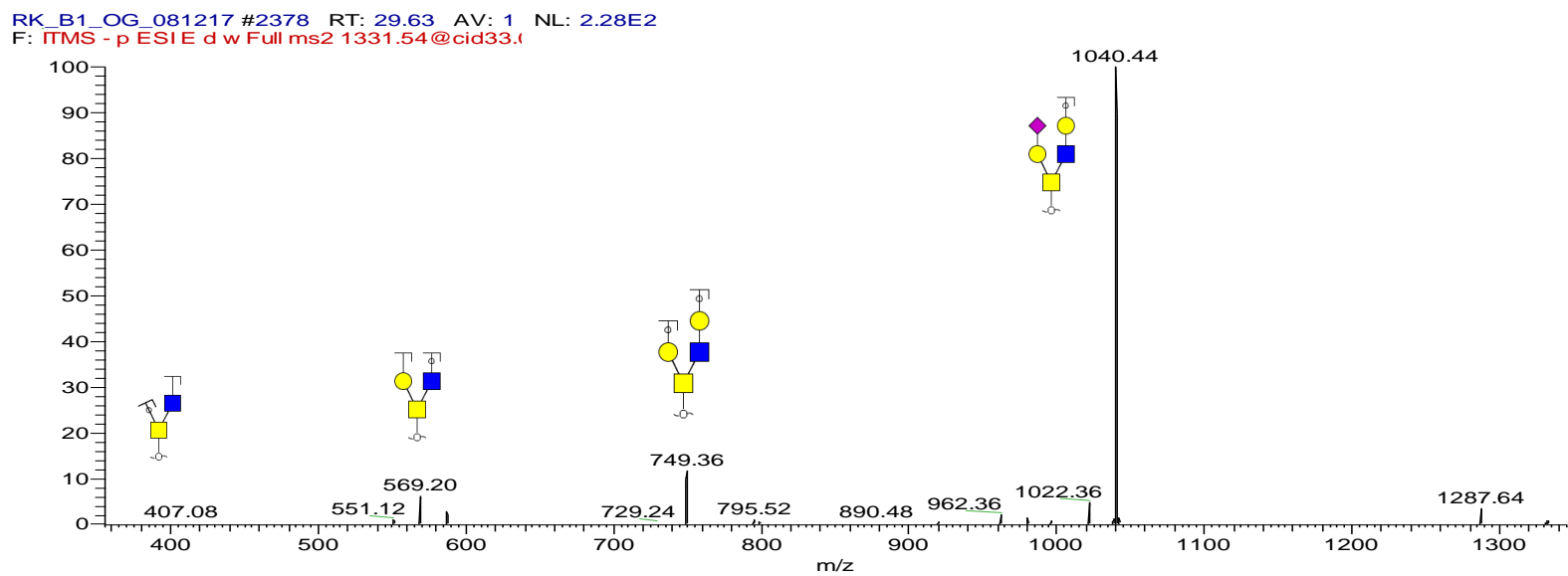
RK\_B1\_OG\_081217 #2144 RT: 26.70 AV: 1 NL: 1.81E1  
F: ITMS - p ESIE d w Full ms2 1040.41 @cid33.(



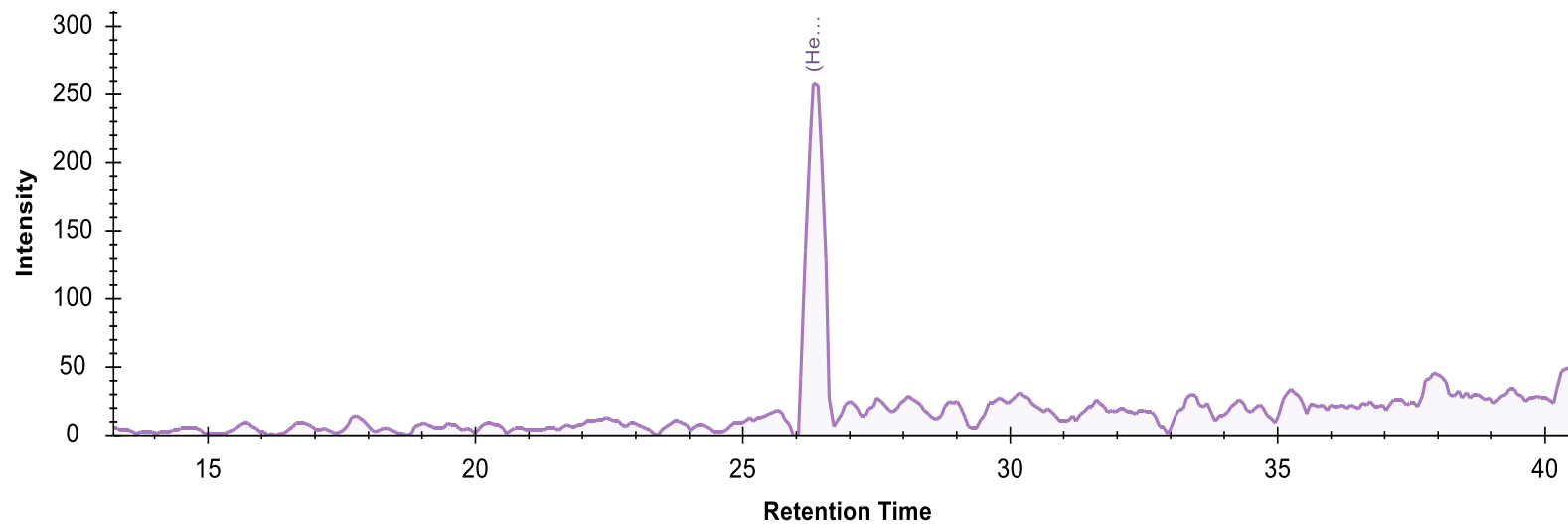
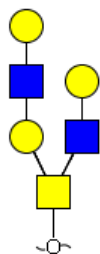
(Hex)2 (HexNAc)2 (NeuAc)2  
Glytougan ID: G52120NK  
[M-H] 1331.54



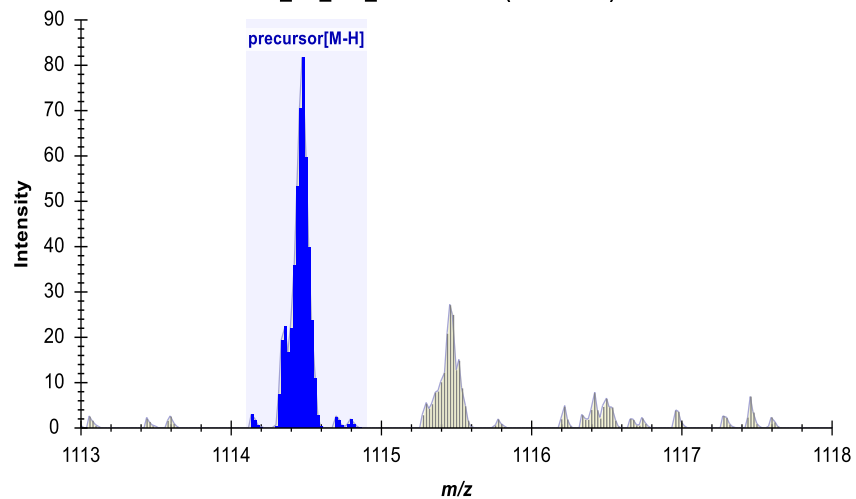
Glycan ID: 95



(Hex)3 (HexNAc)3  
GlytouCan ID: G40107NH  
[M-H] 1114.5



RK\_A2\_OG\_081217.raw (26.33 min)



Glycan ID: 96

RK\_A2\_OG\_081217 #2109 RT: 26.38 AV: 1 NL: 3.19  
F: TMS - p ESI E d w Full ms2 1114.47@cid33.t

