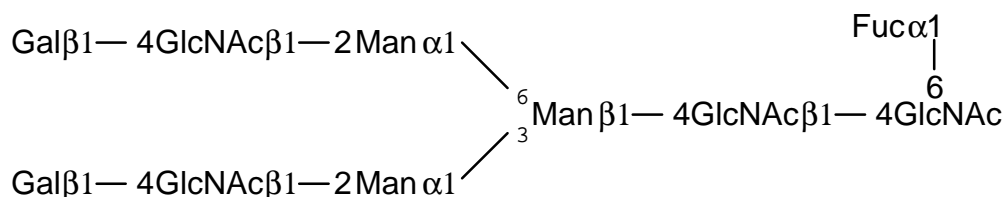


Ludger™

NA2F Glycan

Cat. No. CN-NA2F-x (where x denotes pack size)

Structure



Synonyms : NA2F N-linked oligosaccharide.

Description: Asialo-, bi-antennary complex-type N-glycan (oligosaccharide). NA2F is the asialo-substructure of A2F glycan.

Sources : NA2F glycan is found on several mammalian glycoproteins including IgG, gamma globulins, and many serum glycoproteins. This product is typically purified from the oligosaccharide pool released from porcine thyroglobulin by hydrazinolysis using a combination of HPLC and glycosidase digestion.

Form: Dry. Dried by centrifugal evaporation from an aqueous solution.

Molecular Weight: 1788

Purity: > 90% pure as assessed by a combination of ¹H-NMR and HPLC.

Storage: Refrigerate (-20°C) both before and after dissolution. This product is stable for at least 5 years as supplied.

Shipping: The product can be shipped at ambient when dry. After dissolution, ship on dry ice.

Handling: Allow the unopened vial to reach ambient temperature and tap unopened on a solid surface to ensure that most of the lyophilized material is at the bottom of the vial. Gently remove the cap, add the desired volume of reconstitution medium, re-cap and mix thoroughly to bring all the oligosaccharide into solution. For maximal recovery of oligosaccharide, ensure that the cap lining is also rinsed and centrifuge the

Ludger

reconstituted vial briefly before use. Ensure that any glass, plasticware or solvents used are free of glycosidases and environmental carbohydrates.

Safety: This product is non-hazardous and has been purified from natural sources certified to be free of all hazardous material including pathogenic biological agents.

For research use only. Not for human or drug use

Related Products

Ludger Cat. No.	Description
--------------------	-------------

CN-A2F-x	A2F Glycan (di-sialylated parent of NA2F glycan)
CN-A1F-x	A1x Glycan (mono-sialylated parent of NA2F glycan)
CN-NGA2F-x	NGA2F Glycan (a substructure of NA2F glycan)
CN-M3N2F-x	M3N2F Glycan (a substructure of NGA2F glycan)

Warranties and liabilities

Ludger warrants that the above product conforms to the attached analytical documents. Should the product fail for reasons other than through misuse Ludger will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and Ludger makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose.

Ludger shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research only.

Document # 'CN-NA2F-Guide', revision # 1.3



Certificate of Analysis

NA2F Glycan

Cat. #s: CN-NA2F-10U (10 µg) and CN-NA2F-20U (20µg)

Lot # : A659-01

Purity: > 90% pure as assessed by a combination of HPLC (see Fig 1) and ^1H -NMR (see Fig 2).

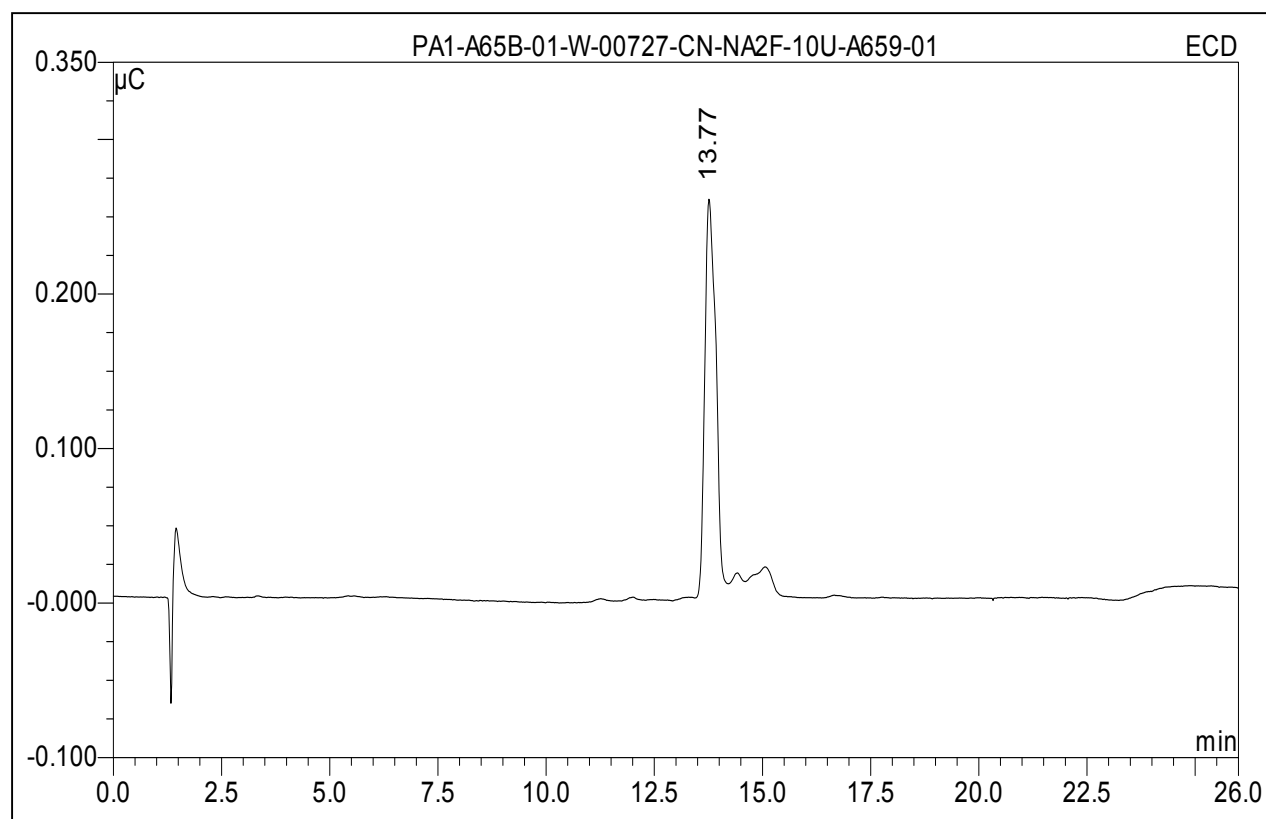
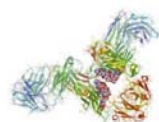


Figure 1 : HPAE-PAD HPLC Profile of NA2F Glycan (Cat. No.CN-NA2F-10U, Lot No. A659-01)



Ludger

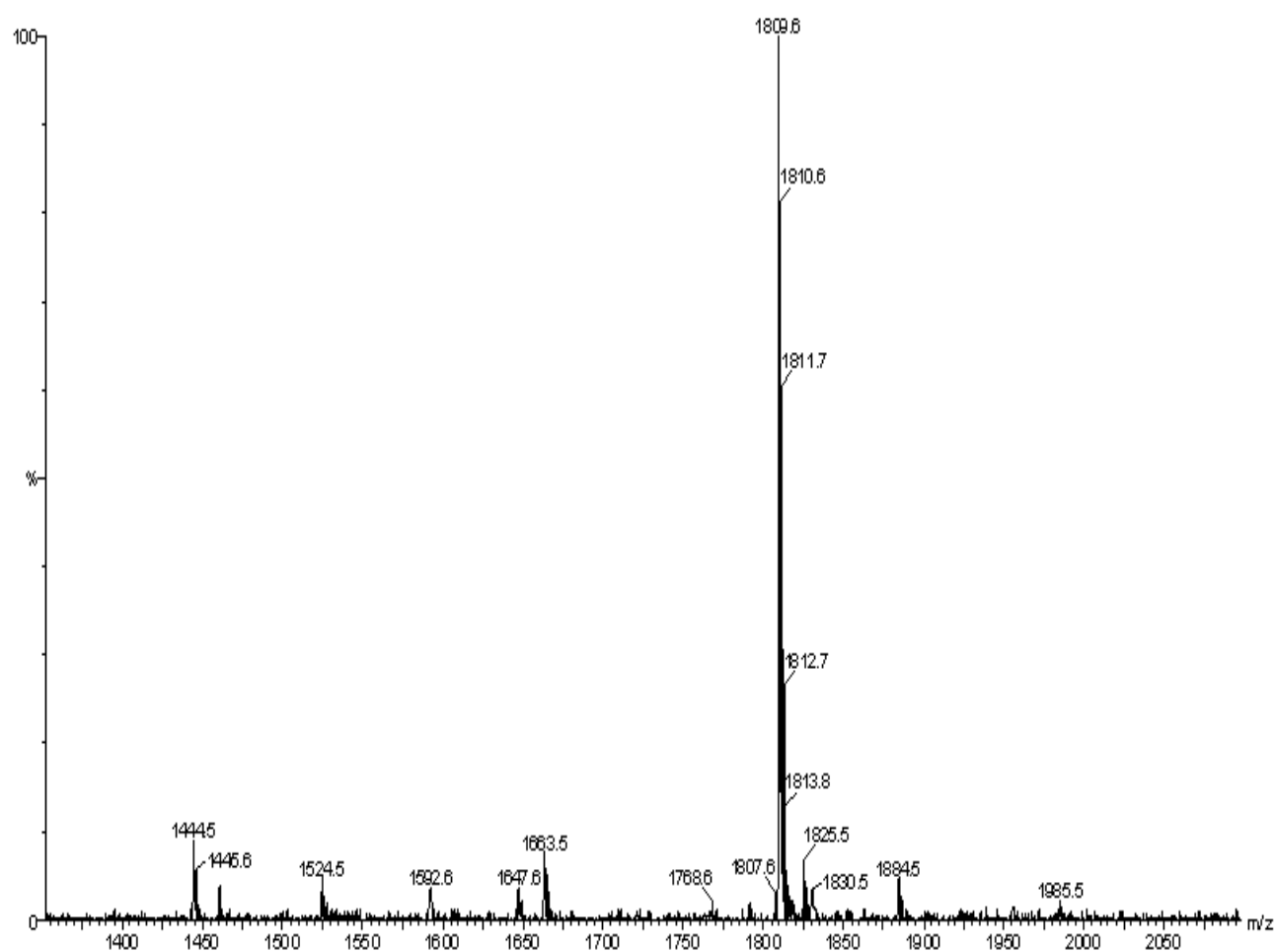


Figure 2 : 500 MHz ^1H -NMR of NA2F Glycan (Cat. No.CN-NA2F-10U, Lot No. A659-01)



Certificate of Analysis

NA2F Glycan

Cat. #s : CN-NA2F-10U (10 µg) and CN-NA2F-20U (20 µg)

Lot # : A7AG-01

Purity: > 90% pure as assessed by a combination of HPAE-PAD (see Fig 1) and NMR (see Fig 2).

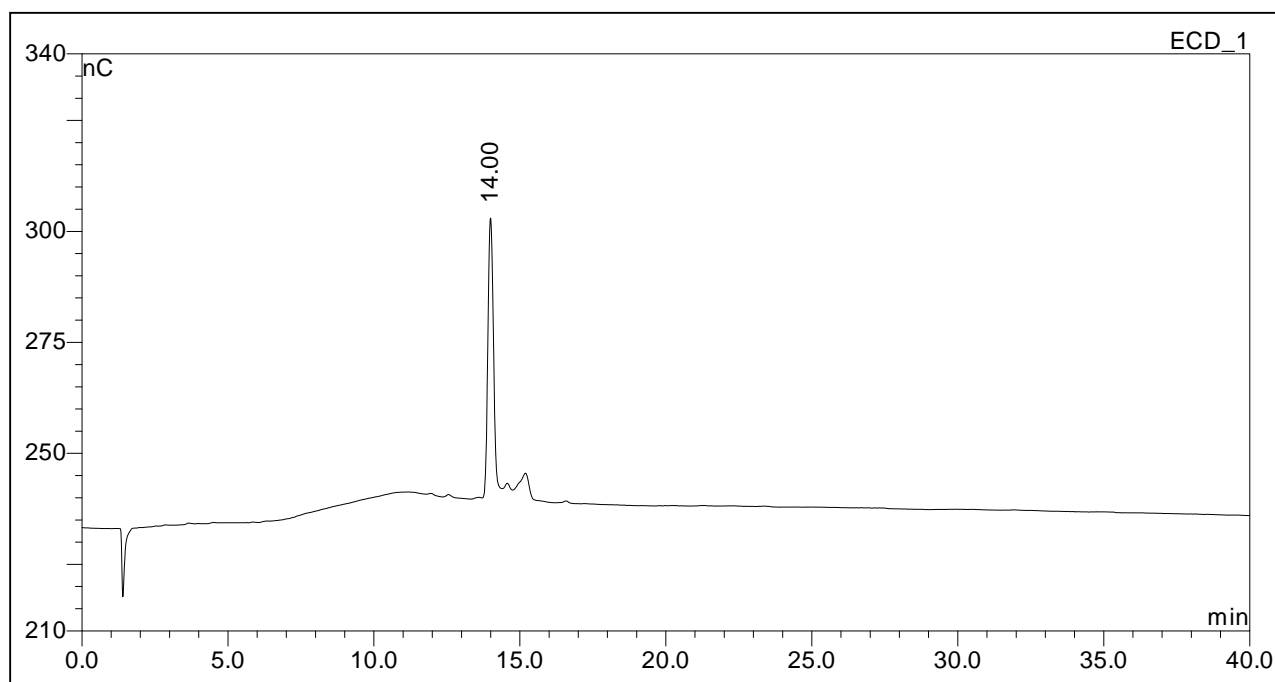


Figure 1 : HPAE-PAD HPLC Profile of NA2F glycan (CN-NA2F-10U, Lot A7AG-01)

CN-NA2F (06/73)

Collision energy: 0

Focus: 16000, Source: 20000, Extraction: 19950, Pulse: 3000

060198 4 (0.283) Sb (99,50.00); Sm (SG, 2x2.00); Cm (1:6)

6-MAR-2006, 14:36:40

Target spot: 24

Laser course: 50, Fine: 40

TOF LD+
3.28e3

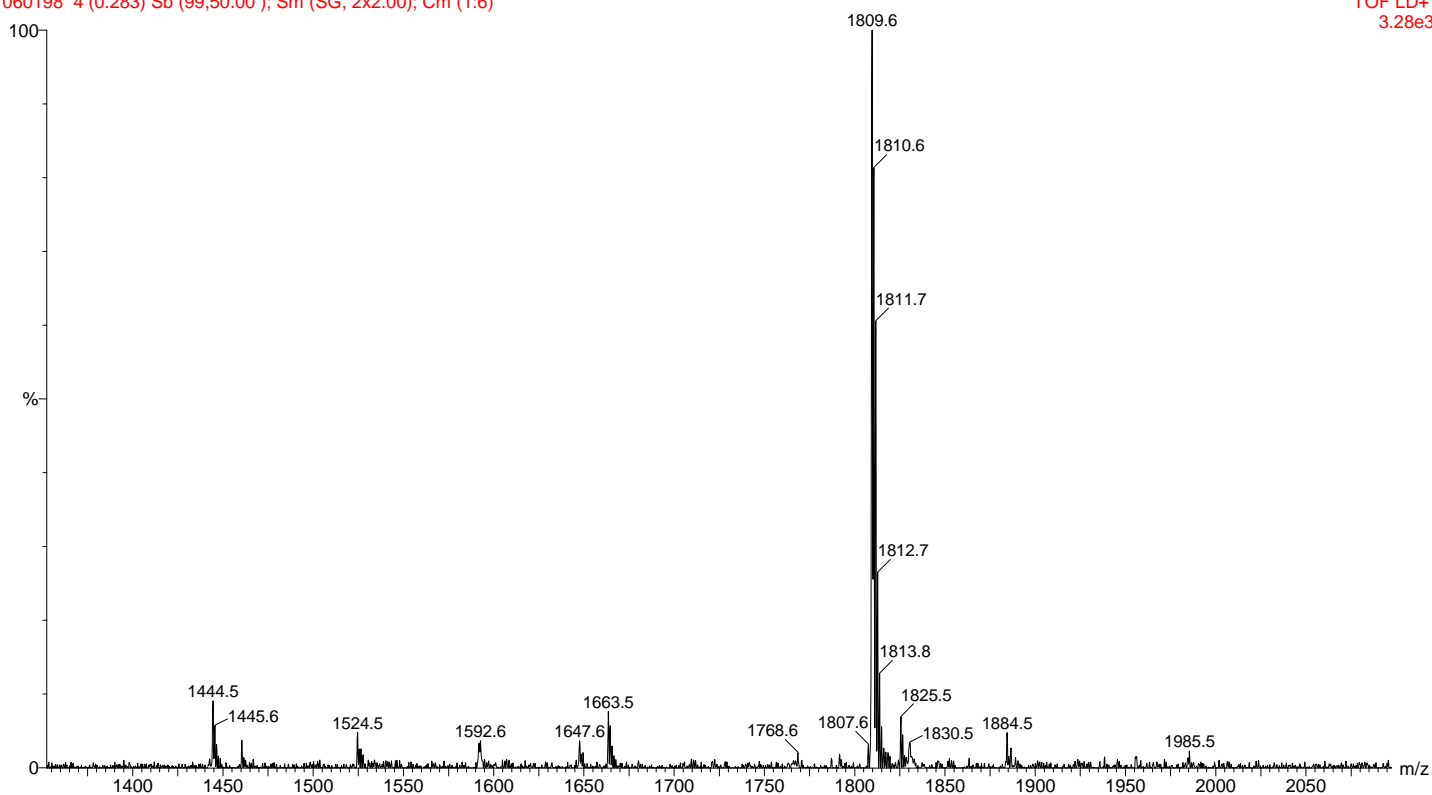


Figure 2: 500MHz ^1H -NMR of NA2F glycan Bulk material used for A7AG-01



Certificate of Analysis

NA2F Glycan

Cat. #s : CN-NA2F-10U (10 µg) and CN-NA2F-20U (20 µg) Lot # : A7BT-01

Purity: > 90% pure as assessed by a combination of HPAE-PAD (see Fig 1) and NMR (see Fig 2).

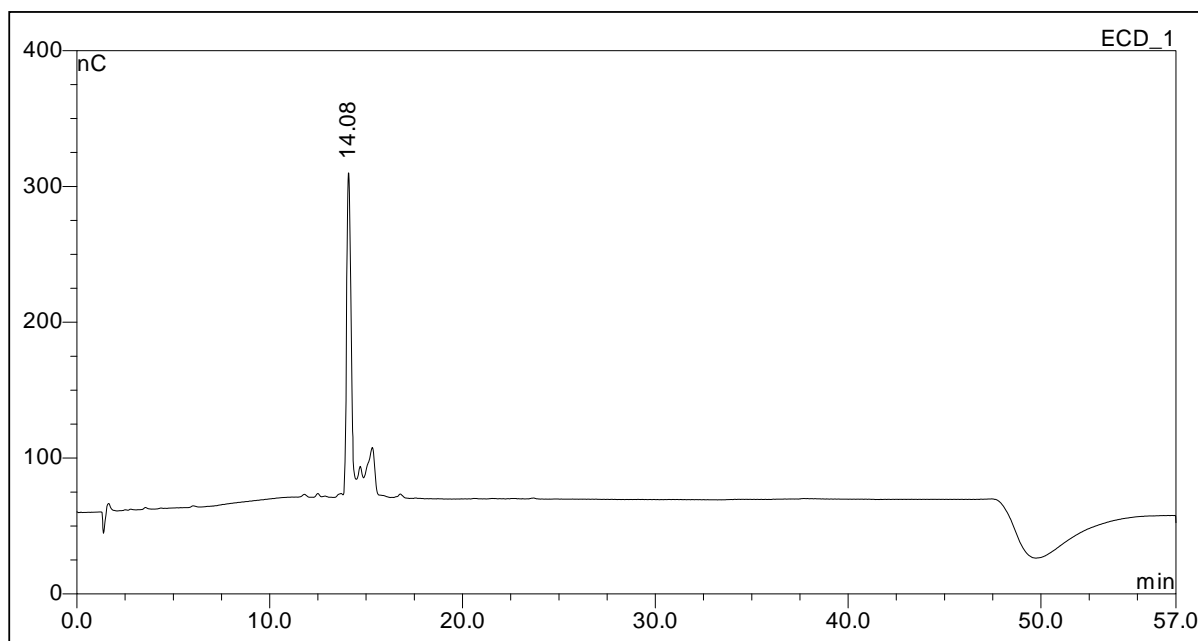


Figure 1 : HPAE-PAD HPLC Profile of NA2F glycan (CN-NA2F-10U, Lot A7BT-01)

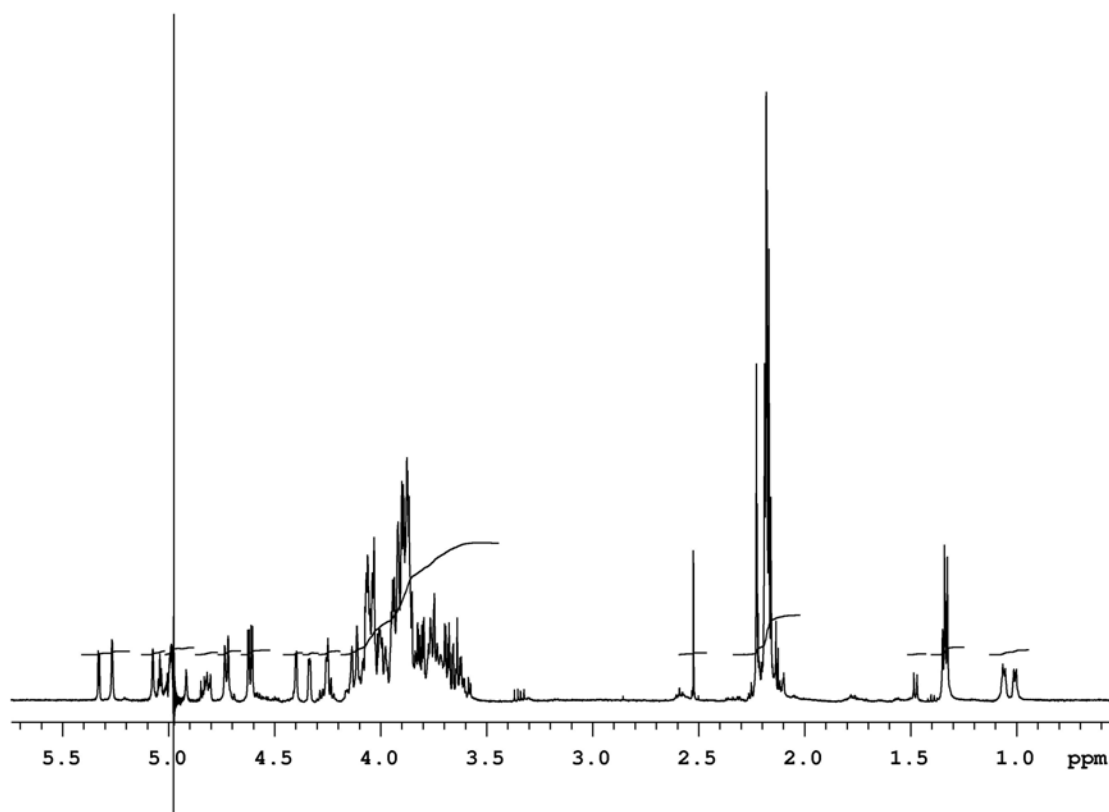


Figure 2: 500MHz ^1H -NMR of NA2F glycan Bulk material used for A7BT-01

CN-NA2F (06/73)
 Collision energy: 0
 Focus: 16000, Source: 20000, Extraction: 19950, Pulse: 3000
 060198 4 (0.283) Sb (99.50.00); Sm (SG, 2x2.00); Cm (1:6)

6-MAR-2006, 14:36:40
 Target spot: 24
 Laser course: 50, Fine: 40
 TOF LD+
 3.28e3

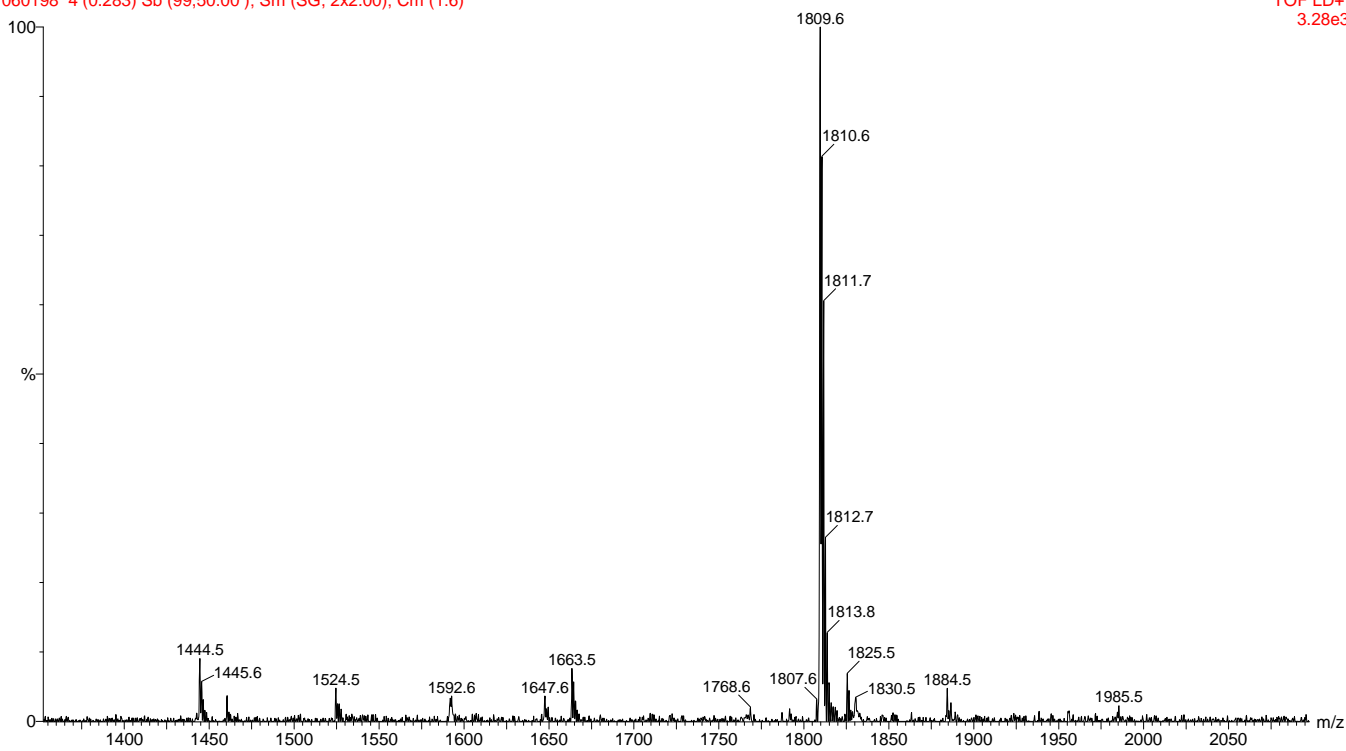


Figure 3: Mass Spec of NA2F glycan Bulk material used for A7BT-01