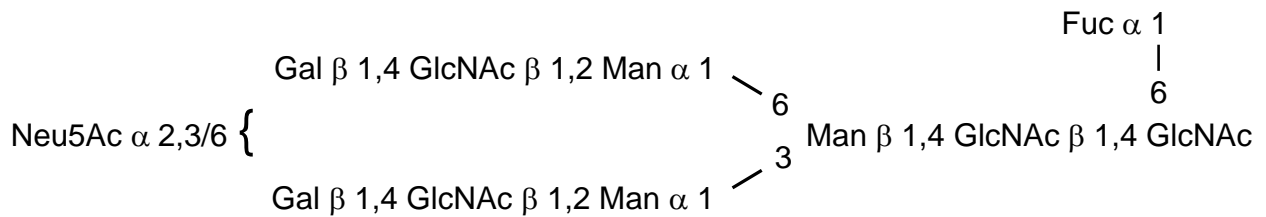


## A1F Glycan

Cat. No. CN-A1F-x (where x denotes pack size)

### Structure



**Synonyms :** A1F N-linked oligosaccharide.

**Description:** Mono-sialylated, core-fucosylated bi-antennary complex-type N-glycan (oligosaccharide).

**Sources :** A1F glycan is found on many 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. Contains ammonium salt to stabilise against desialylation.

**Molecular Weight:** 2079

**Purity:** > 90% pure as assessed by a combination of <sup>1</sup>H-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 reconstituted vial briefly before use. Ensure that any glass, plasticware or solvents used are free of glycosidases and environmental carbohydrates.

Minimise exposure to elevated temperatures or extremes of pH. High temperatures and low pH will cause desialylation. High pH will cause epimerisation of the reducing terminus GlcNAc.

**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 A1F glycan)
CN-NA2F-x	NA2F Glycan (degalactosylated derivative of A1F 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-A1F-Guide', revision 2.2

# Ludger™

## Certificate of Analysis

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### A1F Glycan

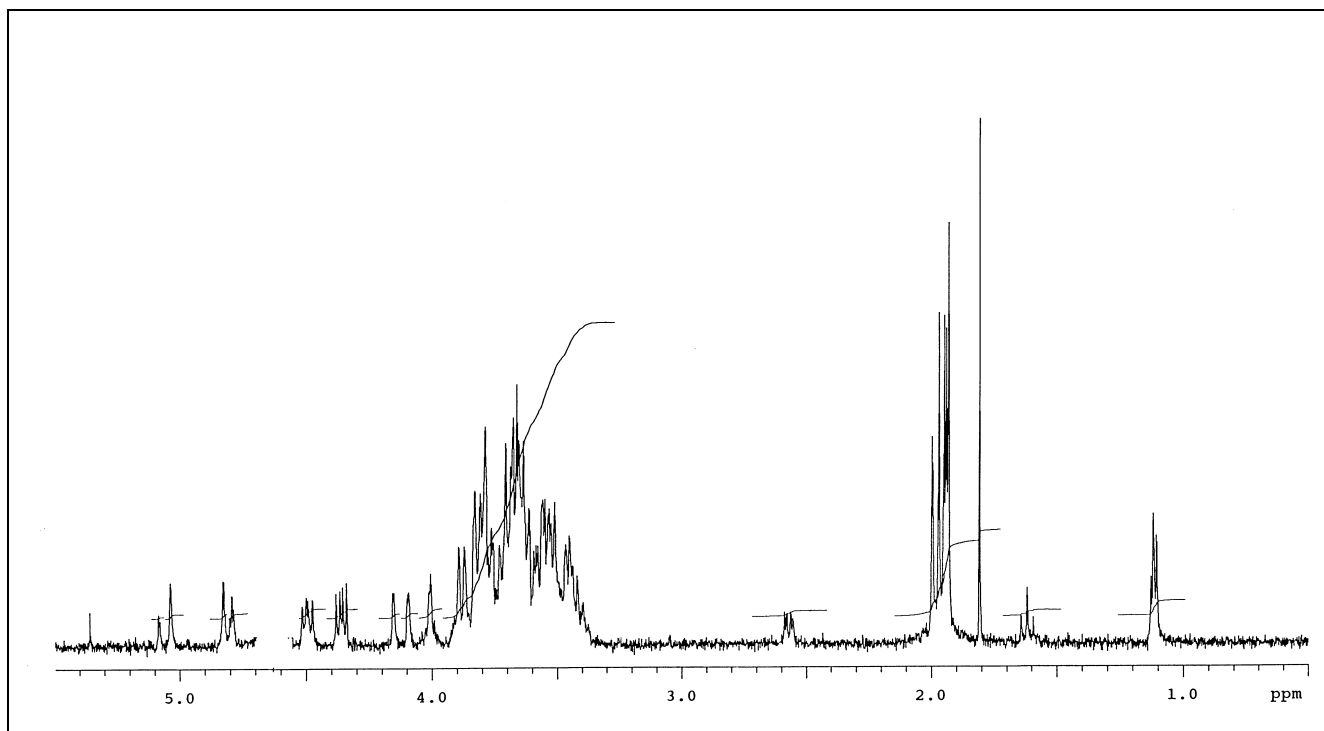
Cat. # : CN-A1F-20U

Lot # : H5G-01

Size : 20 µg

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**Purity:** > 90% pure as assessed by a combination of <sup>1</sup>H-NMR (see Fig 1) and HPLC.



**Figure 1 : 500 MHz <sup>1</sup>H-NMR of A1F Glycan (Cat. No.CN-A1F-20U, Lot No. H5G-01)**

# Ludger™

## Certificate of Analysis

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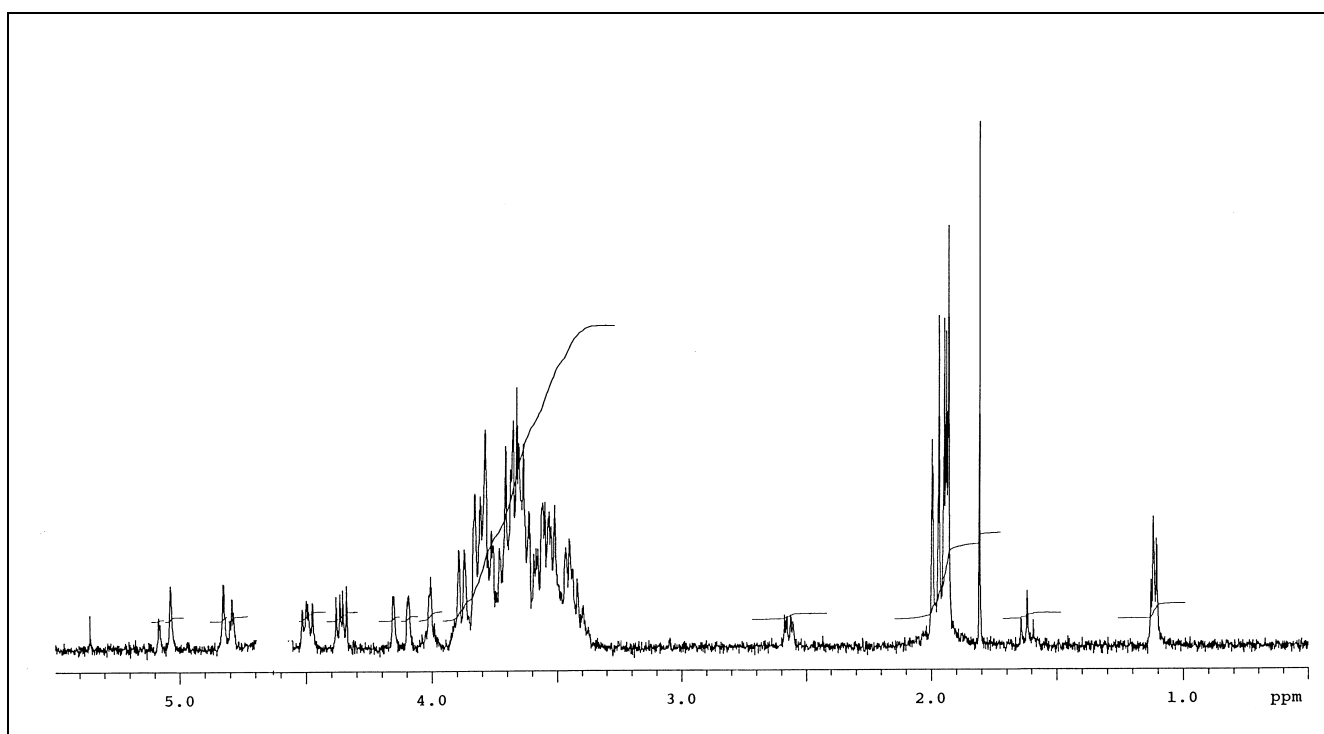
### A1F Glycan

Cat #s: CN-A1F-10U (10µg) and CN-A1F-20U (20µg)

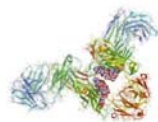
Lot # : A381-02

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**Purity:** > 90% pure as assessed by a combination of  $^1\text{H-NMR}$  (see Fig 1) and HPLC.



**Figure 1 : 500 MHz  $^1\text{H-NMR}$  of A1F Glycan (Cat. No.CN-A1F-10U, Lot No.A381-02)**

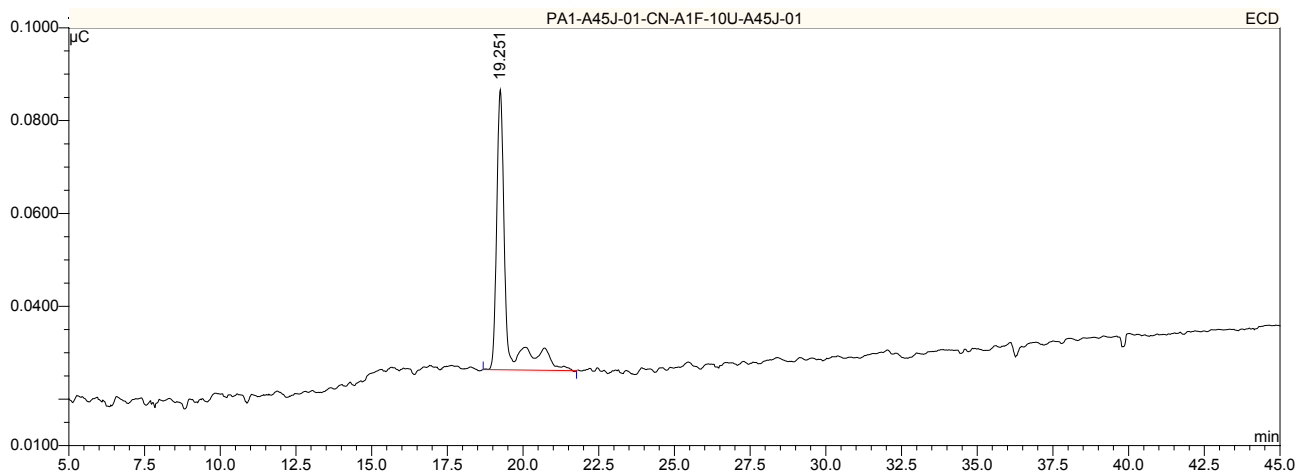


Certificate of Analysis

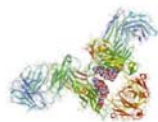
A1F Glycan

Cat. #s : CN-A1F-10U (10 µg) and CN-A1F-20U (20 µg) Lot # : A54J-01

**Purity:** > 90% pure as assessed by HPLC (see Fig 1).



**Figure 1 : HPAE-PAD HPLC Profile of A1F Glycan (Cat. No.CN-A1F-10U, Lot No. A54J-01)**



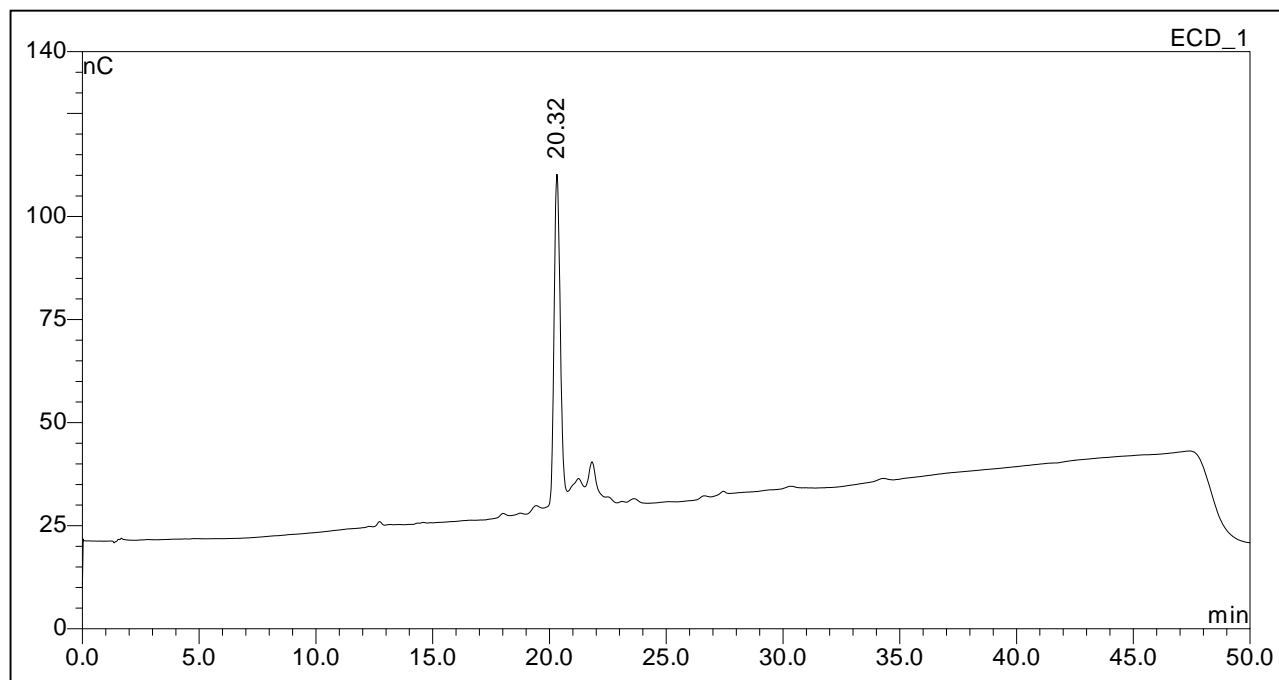
**Certificate of Analysis**

**A1F Glycan**

Cat. #s : CN-A1F-10U (10 µg) and CN-A1F-20U (20 µg) Lot A765-01

**Purity:** > 90% pure as assessed by a combination of HPAE-PAD (see Fig 1) and NMR (see Fig 4).

The material was checked by mass spectrometry on an Axima-QIT ion trap instrument after AA-Ac labeling and methyl esterification to stabilize the sialic acids. Expected mass of [M+H]<sup>+</sup> ion = 2341.9 Da, observed mass = 2341.27 Da.



**Figure 1 : HPAE-PAD HPLC Profile of A1F glycan (CN-A1F-10U, Lot A765-01)**

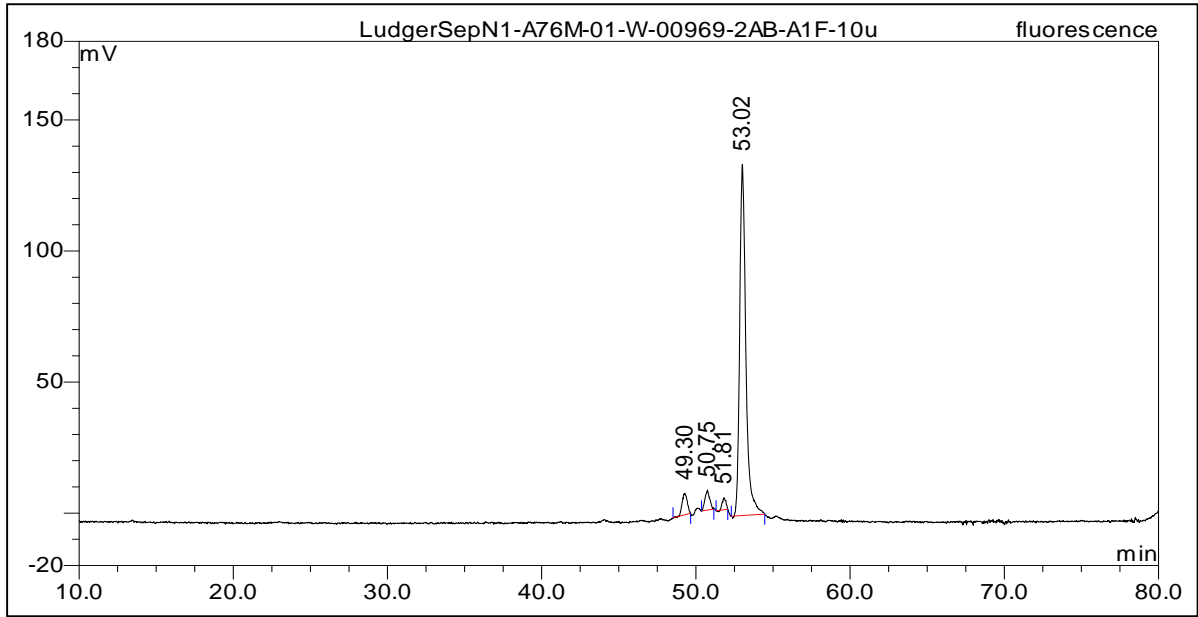


Figure 2: LudgerSep N1 HPLC profile of 2-AB labeled A1F glycan (CN-A1F-10U, lot # A765-01)

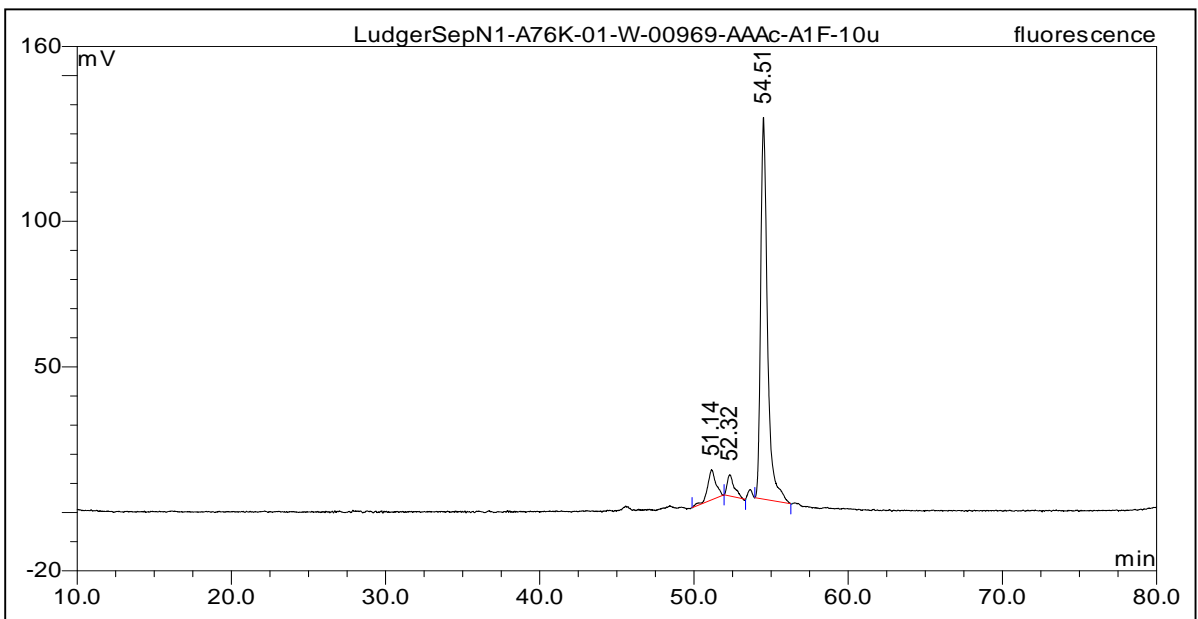


Figure 3: LudgerSep N1 HPLC profile of AAAC labeled A1F glycan (CN-A1F-10U, lot # A765-01)

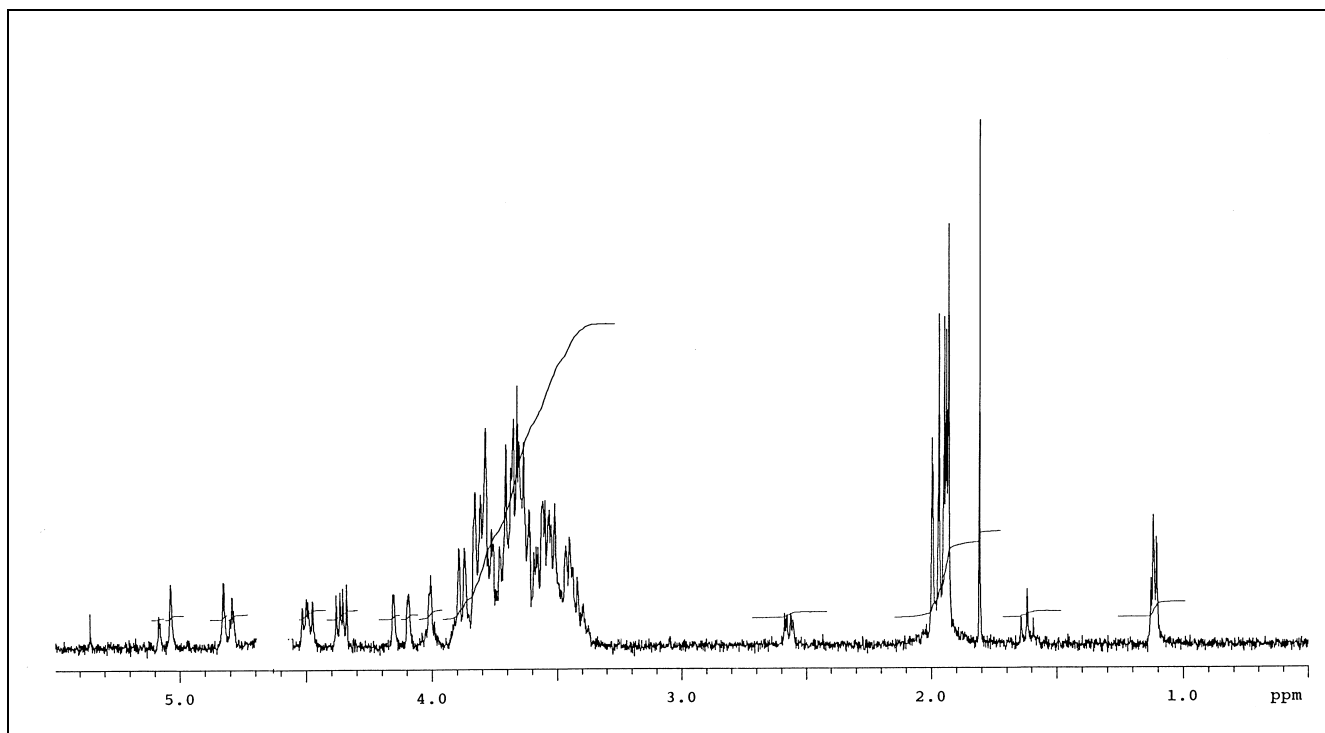


Figure 4: 500MHz  $^1\text{H}$ -NMR of A1F glycan BULK used for CN-A1F-10U, lot # A765-01.