

Certificate of Analysis

LudgerPure™ 2AB Labeled NA4 Glycan

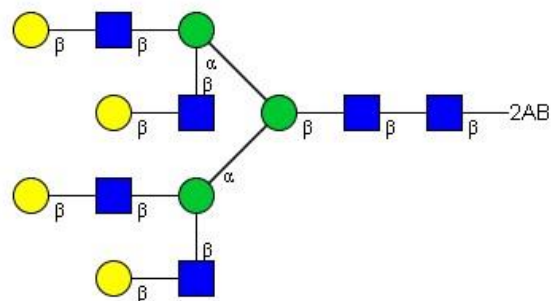
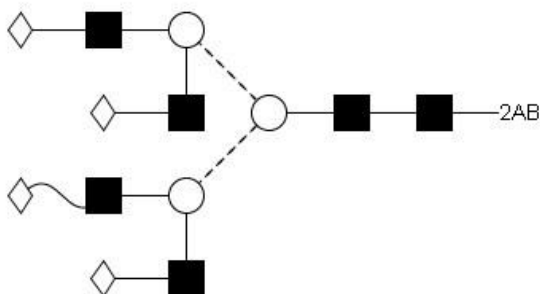
Cat. #: CAB-NA4-01
 Size: approx. 100 pmol

Batch: B2C5-02
 Expiry: 5th Dec 2017

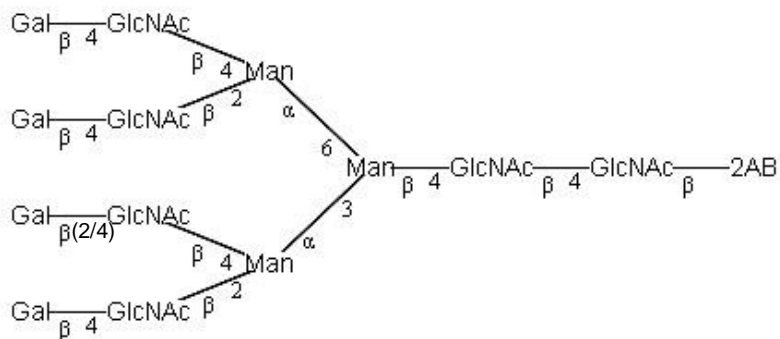
Alternative names

A4G4

Structure



Oxford Notation



CFG Notation

Text Notation

Purity: > 90.4% 2AB labeled NA4 glycan, as assessed by HPLC - see Fig 1.

Amount: Sample vial determined to contain 117 pmols NA4 glycan – Test performed 13 Dec 2012.

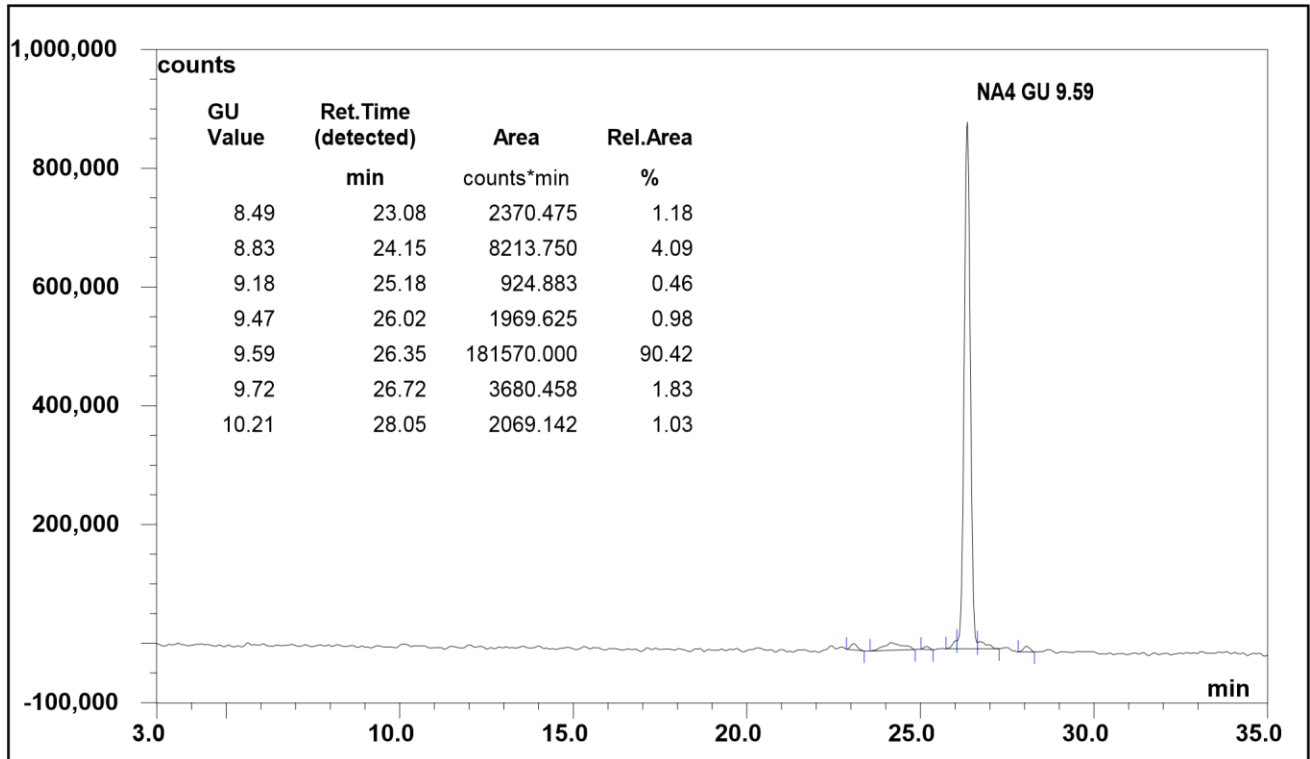


Figure 1: HILIC HPLC profile of 2AB labeled NA4 (see method conditions below)

(Cat. #: CAB-NA4-01, Batch B2C5-02).

**NA4 glycan structure identified by MALDI, MS & HPLC (GU value comparison to GlycoBase). This structure is drawn according to the scheme developed by Oxford-Dublin Glycobiology Laboratory (see Fig 2).*

2-AB NA4 peak seen above, eluted at 26.4 minutes, under the following conditions:

HPLC Running Conditions:

Column: Waters BEH Glycan 1.7µm column (150mm)

Flow: See table below.

Temperature: 60 °C

Solvent A: 50 mM ammonium formate pH 4.4 Solvent B: 100 % acetonitrile

Gradient:

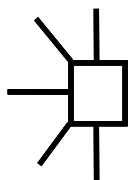
Time (min)	%B	Flow rate (mL/min)
0.0	78.0	0.50
38.5	55.9	0.50
40.5	0.0	0.25
42.5	0.0	0.25
44.5	78.0	0.25
50.5	78.0	0.25
51.5	78.0	0.50
55.0	78.0	0.50

Detector: Dionex FLD-3000

Excitation wavelength: 330 nm

Emission wavelength: 420 nm

<i>Symbol for sugar</i>	<i>Fluorescent label</i>
□ Glc	2AB 2-aminobenzamide
■	2AA 2-aminobenzoic acid
★	
◇	
◆	
◊	
○	—
△	⋯
	~
	⋈



	<i>Linkage position</i>		
GlcNAc			
NeuNAc	6	8	
Gal	4		
GalNAc	3	2	<i>Linkage type</i>
Fuc (deoxy galactose)	β -linkage		
Man			α -linkage
unknown	β -linkage		
Xylose	unknown α -linkage		

Figure 2 : GlycoBase glycan structure key.