



Ludger

Certificate of Analysis

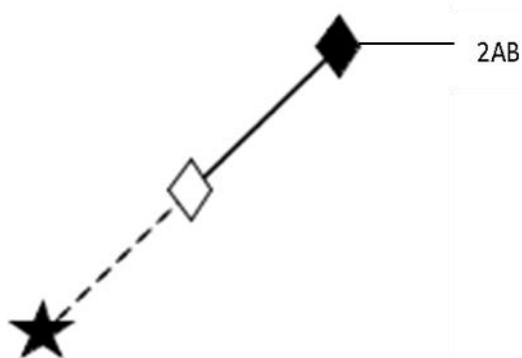
LudgerPure™ 2AB Labeled C1S(3)1 Glycan

Cat. #: CAB-C1S(3)1-01

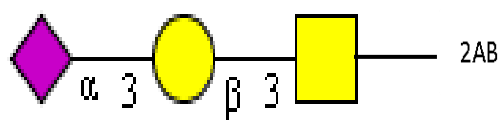
Batch: B413-02

Size: approx. 110 pmol

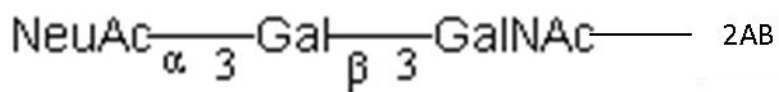
Structure



Oxford Notation



CFG Notation



Text Notation

Purity: 93.45% 2AB labeled C1S(3)1 glycan, as assessed by HPLC - see Fig 1.

Amount: Sample vial determined to contain 110 pmols C1S(3)1 glycan – Test performed 14TH January 2014.

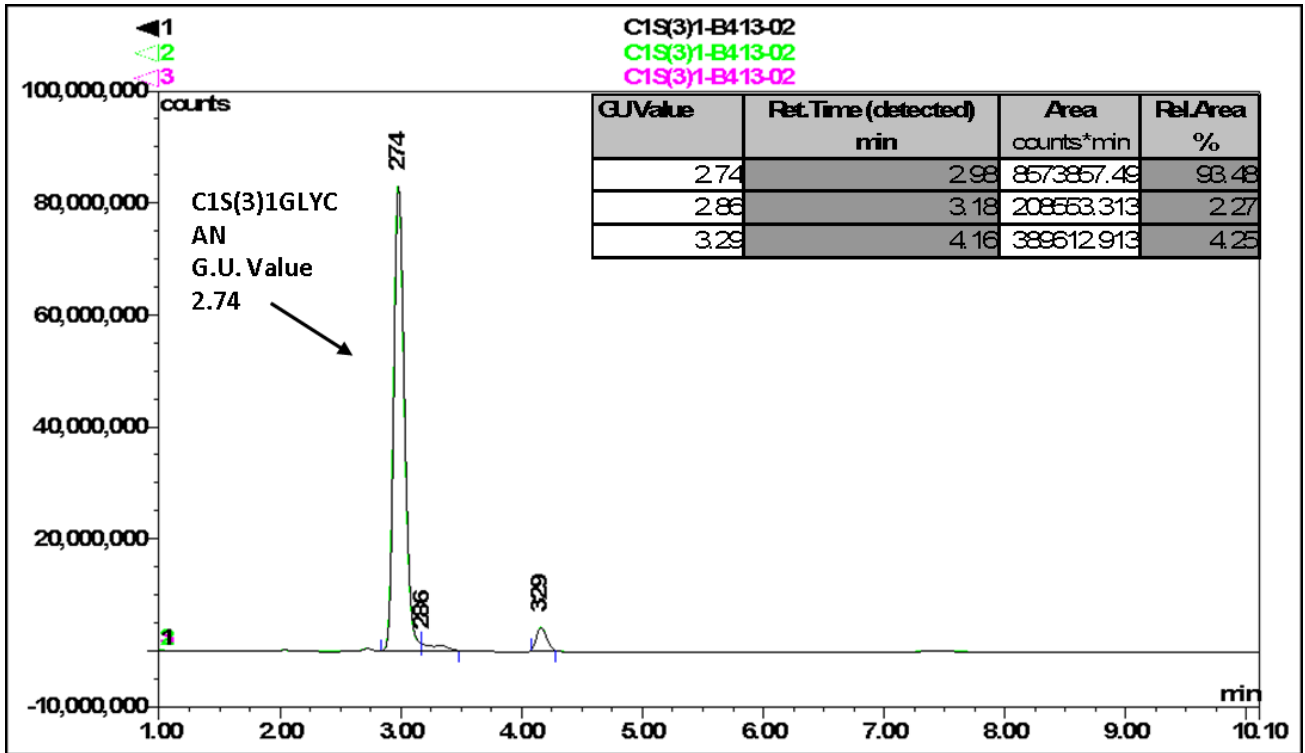


Figure 1: HILIC HPLC profile of 2AB labelled C1S(3)1 glycan (see method conditions below)
 (Cat. #: CAB-C1S(3)1-01, Batch B413-02).

* C1S(3)1 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 C1S(3)1 peak seen above, eluted at 2.98 minutes, under the following conditions:

HPLC Running Conditions:

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

Flow: 0.56mL/min.

Temperature: 60 °C

Solvent A: 50mM ammonium formate pH 4.4

Solvent B: 100 % acetonitrile

Gradient:

Time (min)	%B
0.0	78.0
1.3	78.0
5.0	72.5
5.5	40.0
6.0	78.0
10.0	78.0

Detector: Dionex FLD-3000

Excitation wavelength: 250 nm

Emission wavelength: 428 nm

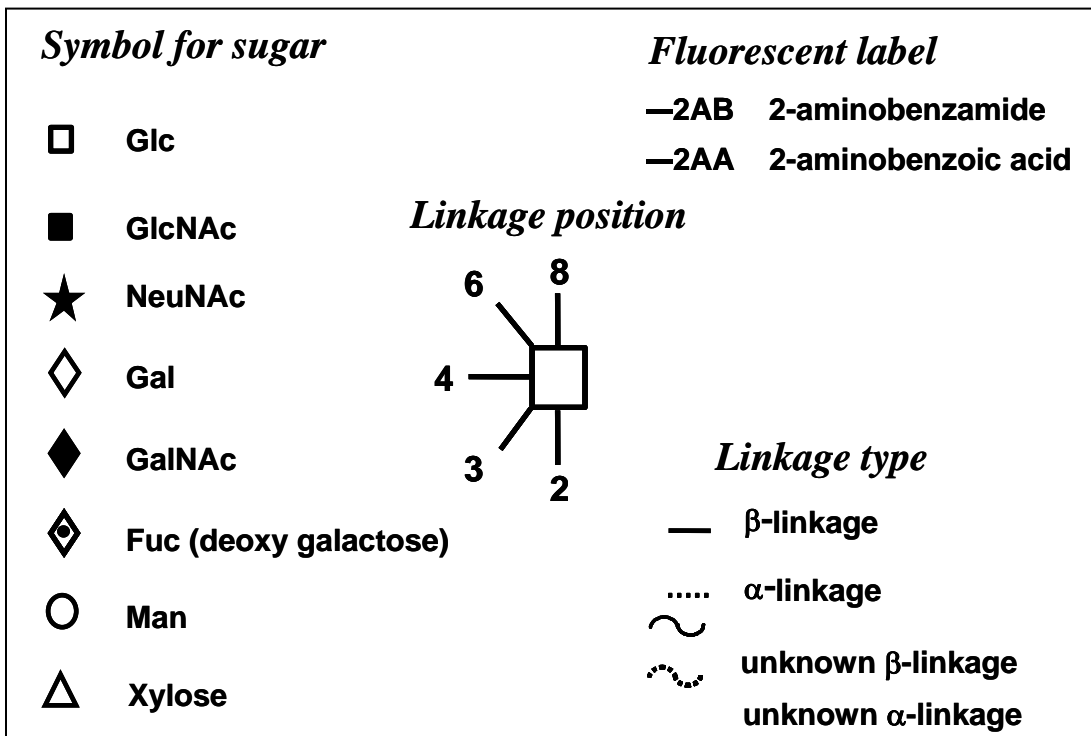


Figure 2: GlycoBase glycan structure key.