

Certificate of Analysis

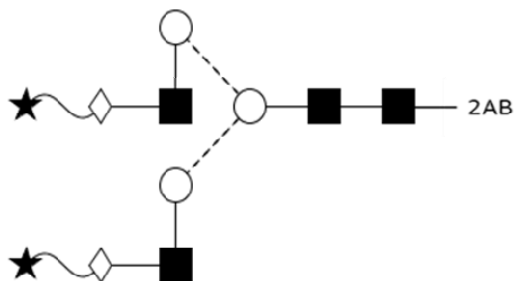
LudgerPure™ 2AB Labeled A2 Glycan

Cat. #: CAB-A2-01

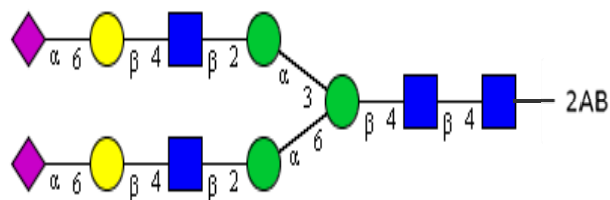
Batch: B382-05

Size: approx. 100 pmol

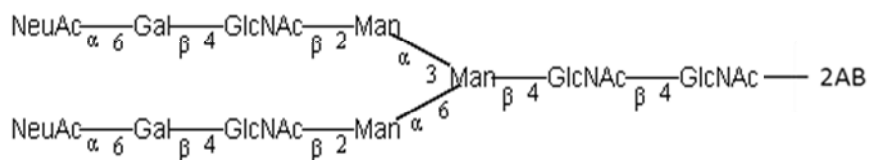
Structure



Oxford Notation



CFG Notation



Text Notation

Purity: 94.14% 2AB labeled A2 glycan, as assessed by UHPLC - see Fig 1.

Amount: Sample vial determined to contain 116.3 pmols A2 glycan – Test performed 2nd August 2013.

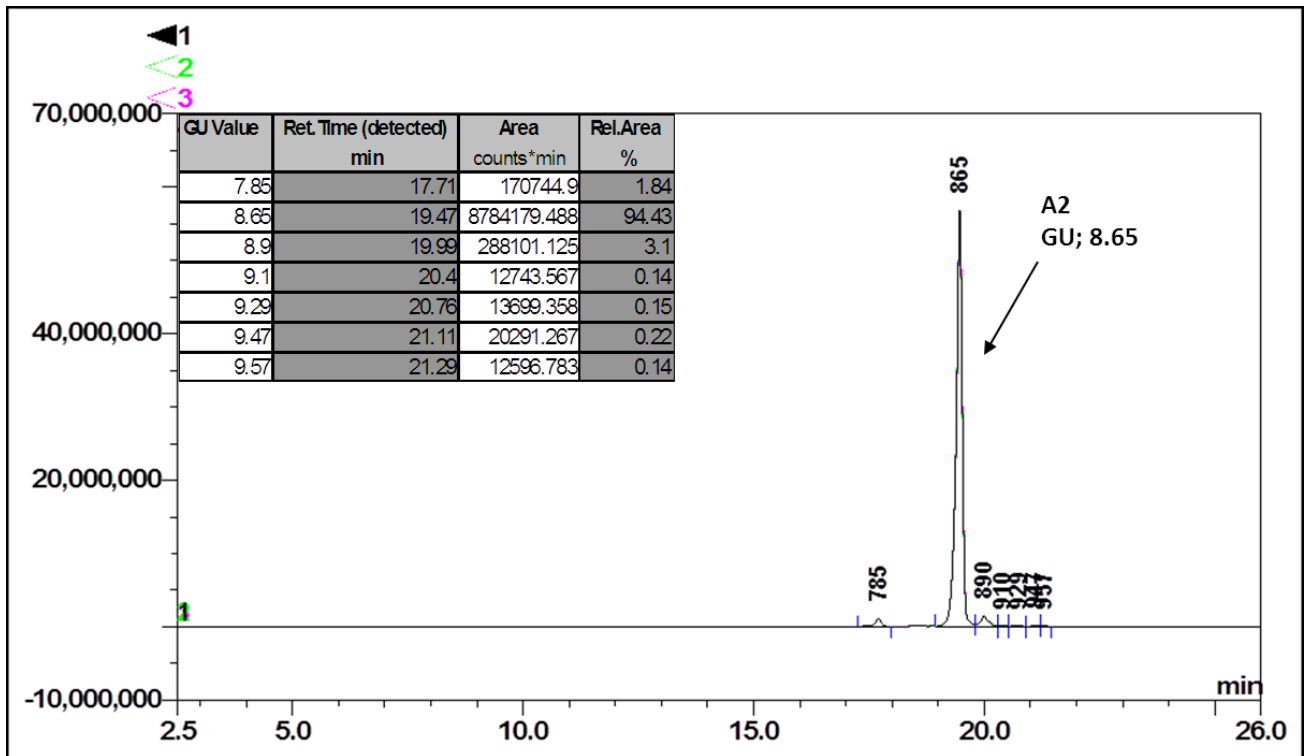


Figure 1: HILIC HPLC profile of 2AB labelled A2 glycan (see method conditions below)
 (Cat. #: CAB-A2-01, Batch B382-05).

**A2 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 A2 peak seen above, eluted at 19.47 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
1.5	78.0
24.8	58.0
25.8	40.0
25.9	78.0
31.0	78.0

Detector: Dionex FLD-3000

Excitation wavelength: 250 nm

Emission wavelength: 428 nm

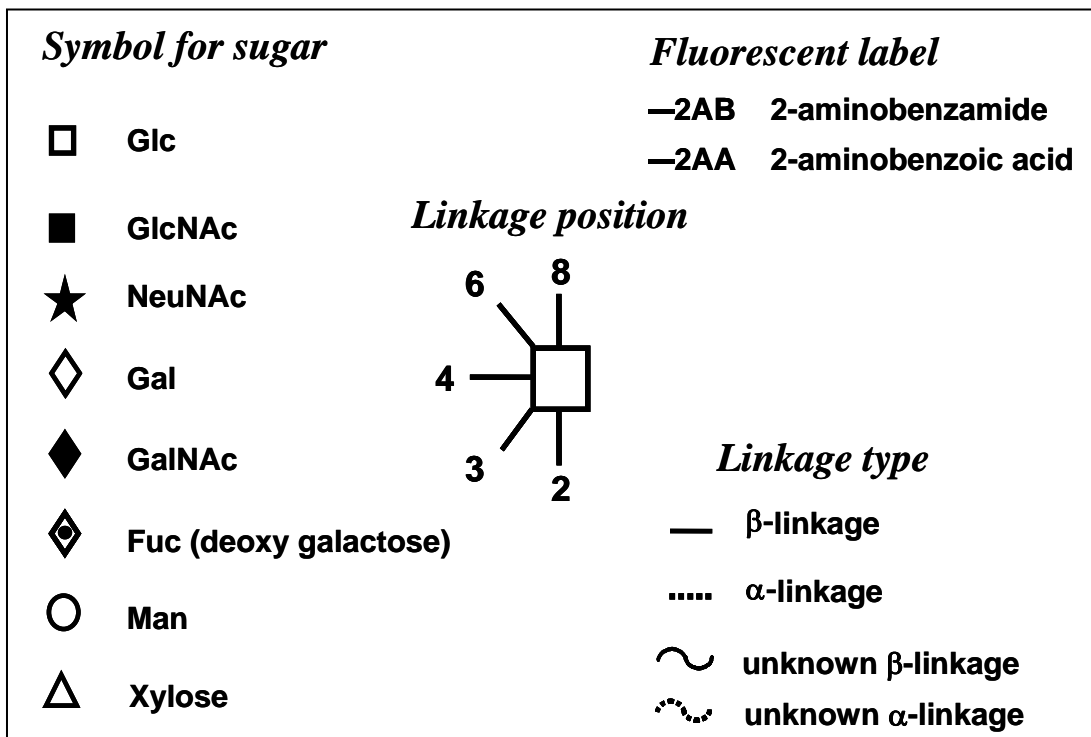


Figure 2: GlycoBase glycan structure key.