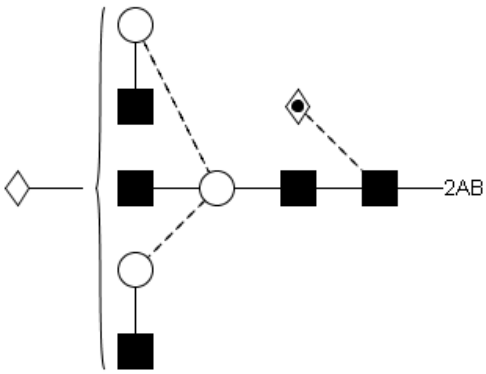
Certificate of Analysis

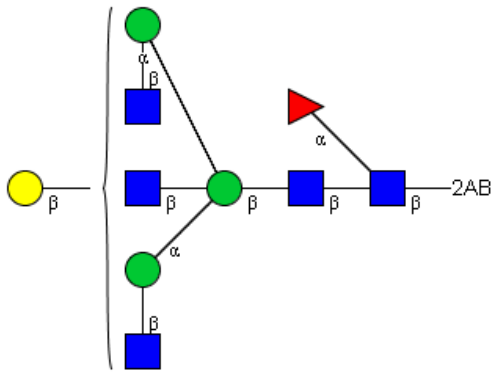
LudgerPure™ 2AB Labeled FA2BG1 Glycan

Cat. #: CAB-FA2BG1-01 Batch: B2C4-04 Size: approx. 100 pmol

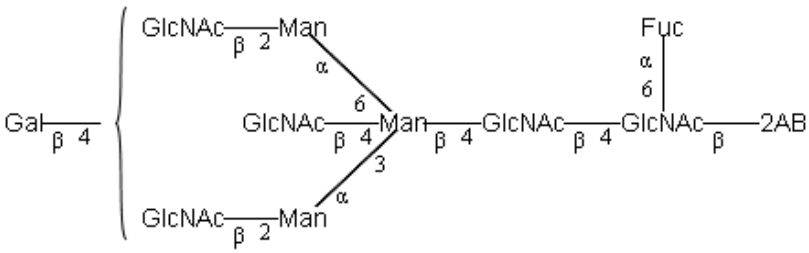
Structure



Oxford Notation



CFG Notation



Text Notation

Purity: 100% 2AB labeled FA2BG1 glycan, as assessed by HPLC - see Fig 1.

Amount: Sample vial determined to contain 117 pmols FA2BG1 glycan – Test performed 13 Dec 2012.

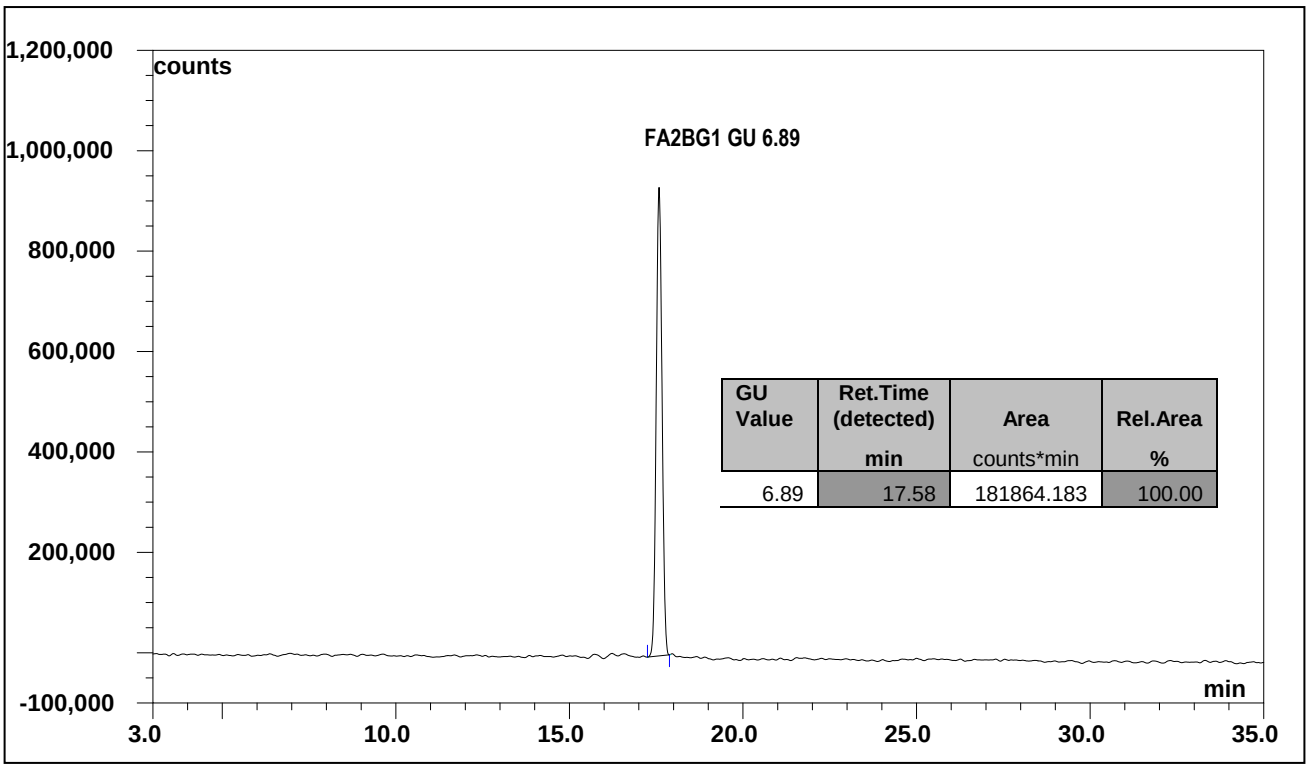


Figure 1: HILIC HPLC profile of 2AB labeled FA2BG1 glycan (see method conditions below) (Cat. #: CAB-FA2BG1-01, Batch B2C4-04).

**FA2BG1 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 FA2BG1 peak seen above, eluted at 17.6 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: 50mM 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

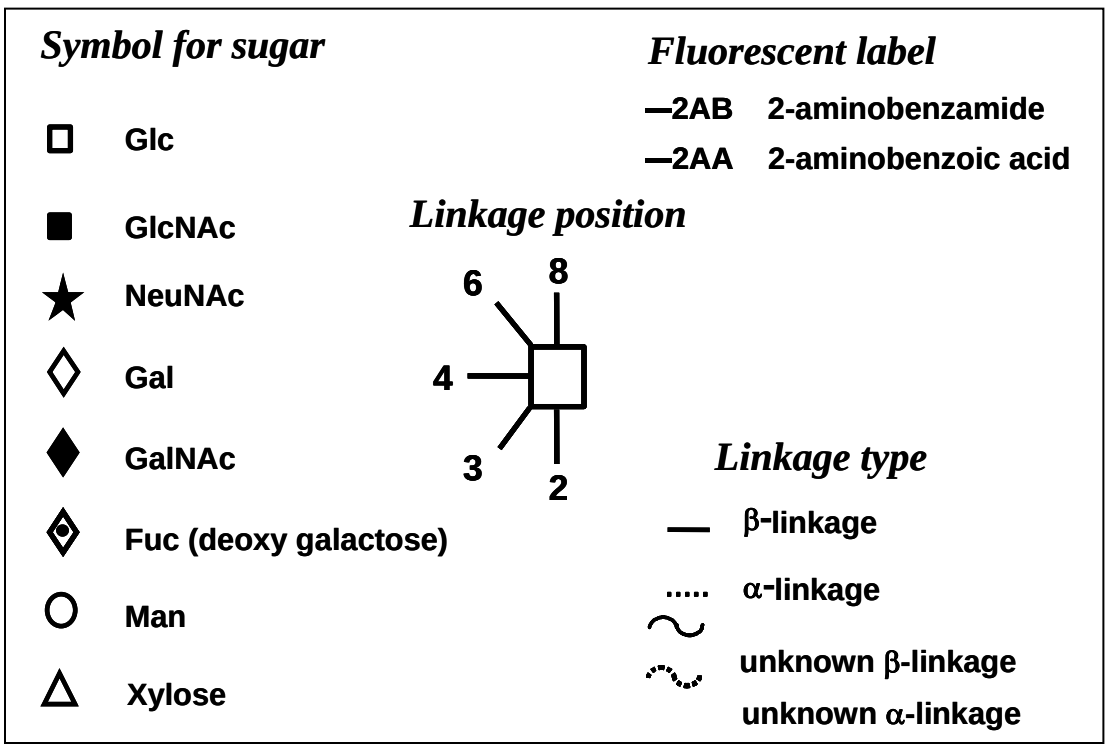


Figure 2: GlycoBase glycan structure key.