

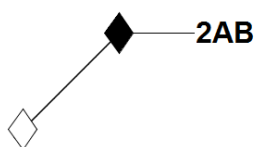
## Certificate of Analysis

### LudgerPure™ 2AB Labeled C1 Glycan

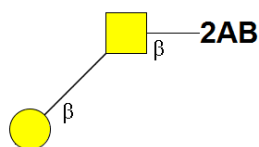
Cat. #: CAB-C1-01  
 Size: approx. 100 pmol

Batch: B412-07  
 Expiry Date: 11 Dec 2028

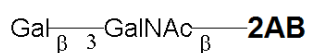
#### Glycan Structure



*Oxford Notation*



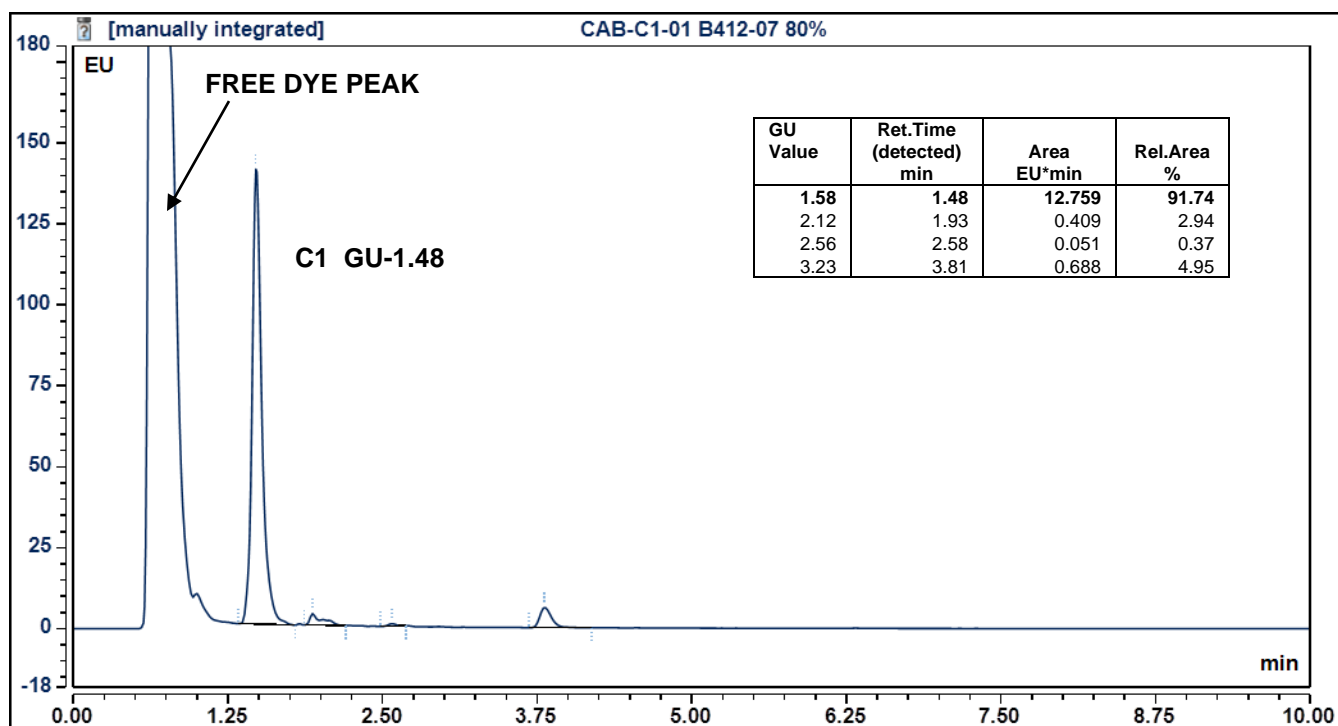
*CFG Notation*



*Text Notation*

**Purity:** 91.7% 2AB labeled C1 glycan, as assessed by HPLC - see Fig 1.

**Amount:** Sample vial determined to contain 92.6 pmols C1 glycan – Test performed 11 Dec 2018.



**Figure 1:** HILIC HPLC profile of 2AB labelled C1 glycan (see method conditions below) (Cat. #: CAB-C1-01, Batch B412-07).

\*C1 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 C1 peak seen above, eluted at 1.5 minutes, under the following 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:** Fluorescence

**Excitation wavelength:** 250 nm

**Emission wavelength:** 428 nm

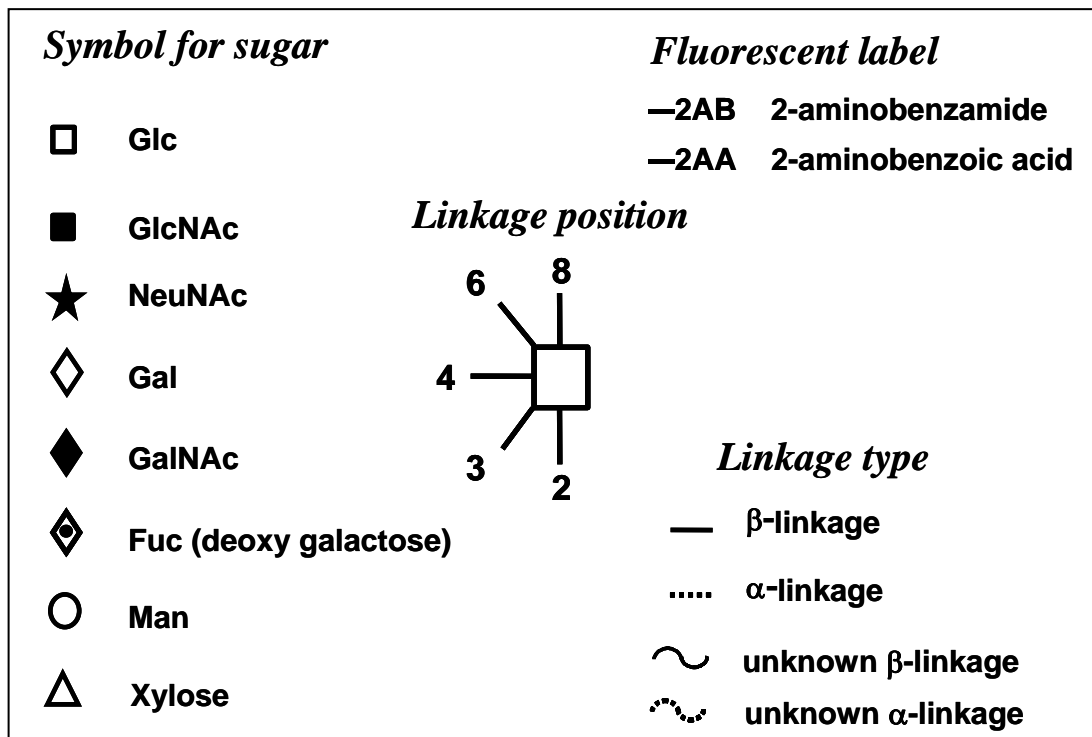


Figure 2: GlycoBase glycan structure key.