

# Ludger

## Certificate of Analysis

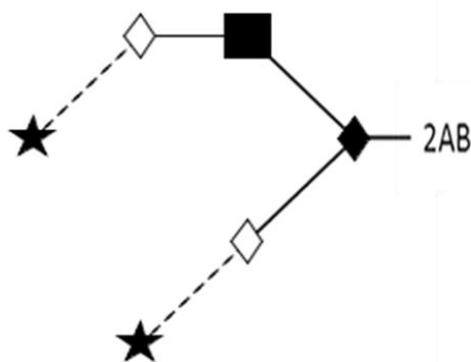
### LudgerPure™ 2AB Labeled C2S(3,3)2 Glycan

Cat. #: CAB-C2S(3,3)2-01

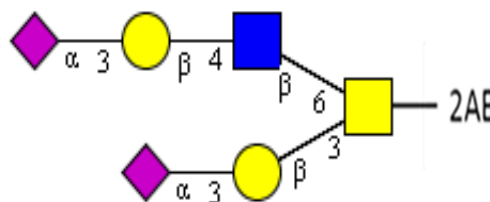
Batch: B3CO-01

Size: approx. 137.2 pmol

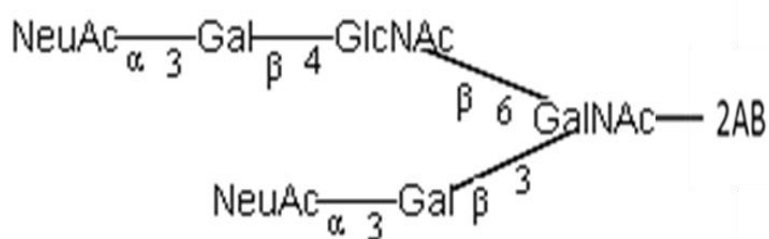
#### Structure



Oxford Notation



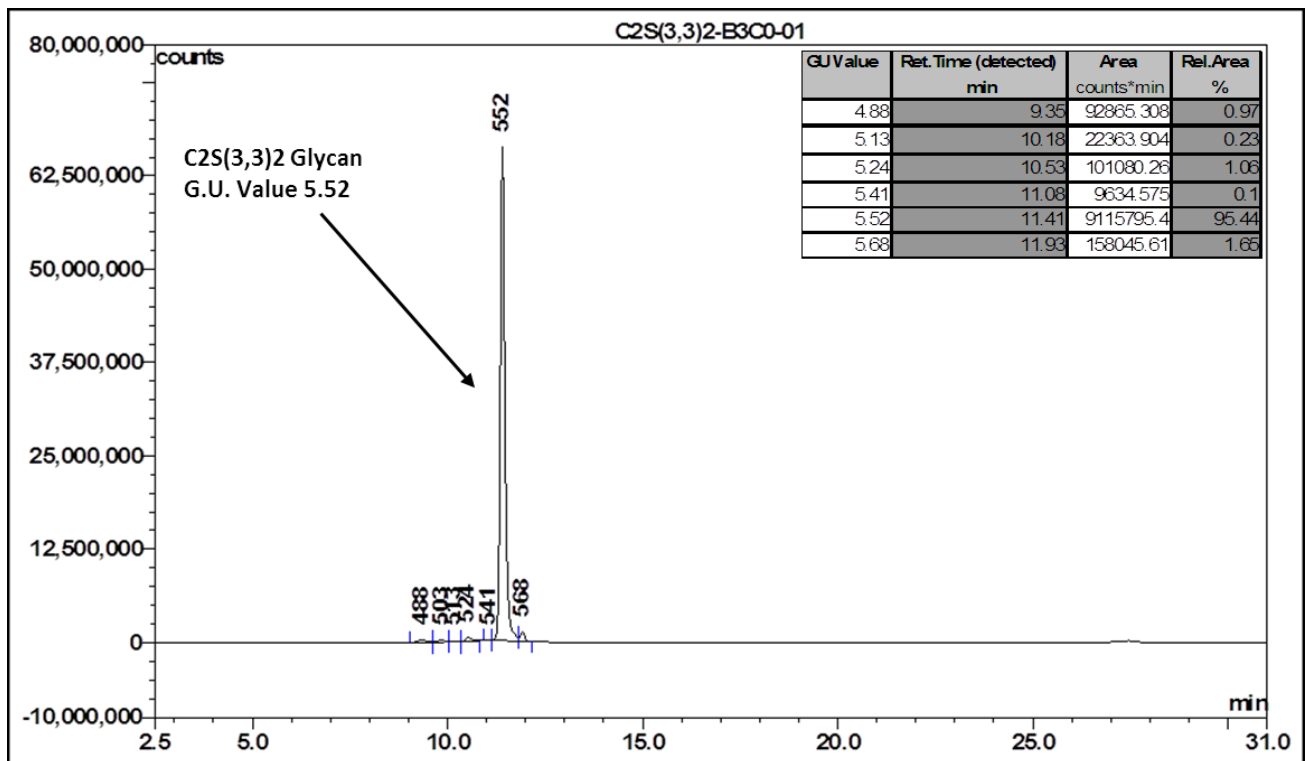
CFG Notation



#### Text Notation

**Purity:** 95.44% 2AB labeled C2S(3,3)2 glycan, as assessed by HPLC - see Fig 1.

**Amount:** Sample vial determined to contain 137.2 pmols C2S(3,3)2 glycan – Test performed 14<sup>TH</sup> January 2014.



**Figure 1:** HILIC HPLC profile of 2AB labelled C2S(3,3)2 glycan (see method conditions below)  
(Cat. #: CAB-C2S(3,3)2-01, Batch B3CO-01).

\* C2S(3,3)2 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 C2S(3,3)2 peak seen above, eluted at 11.41 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

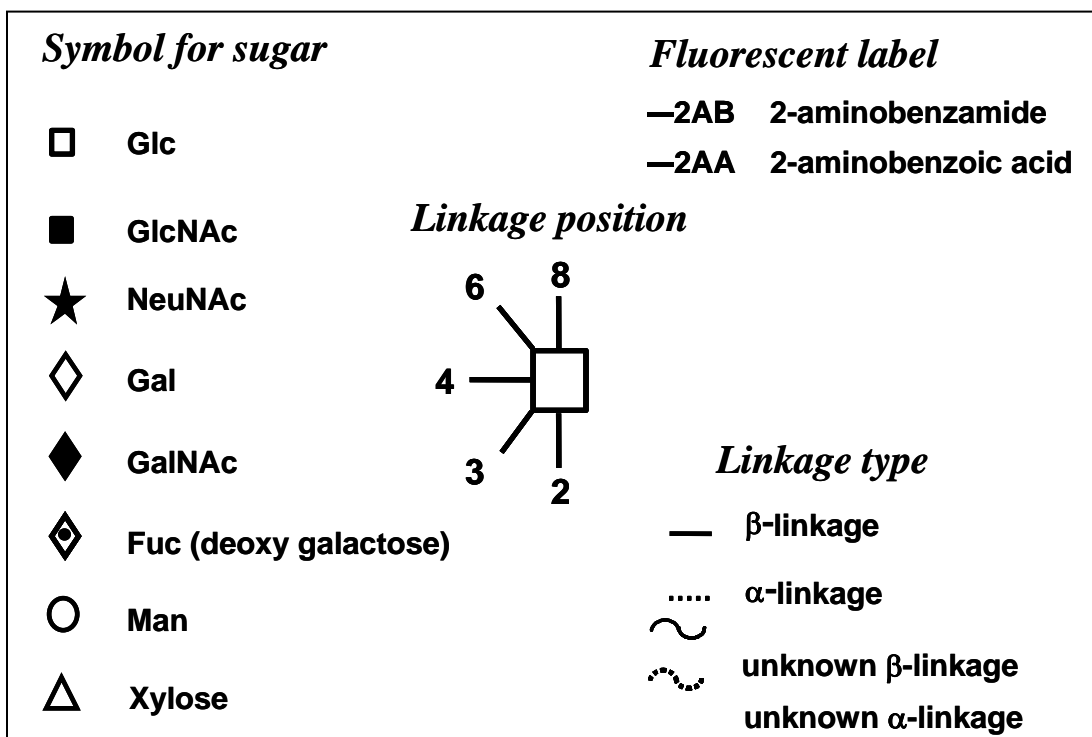
Gradient:

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.