



## Certificate of Analysis

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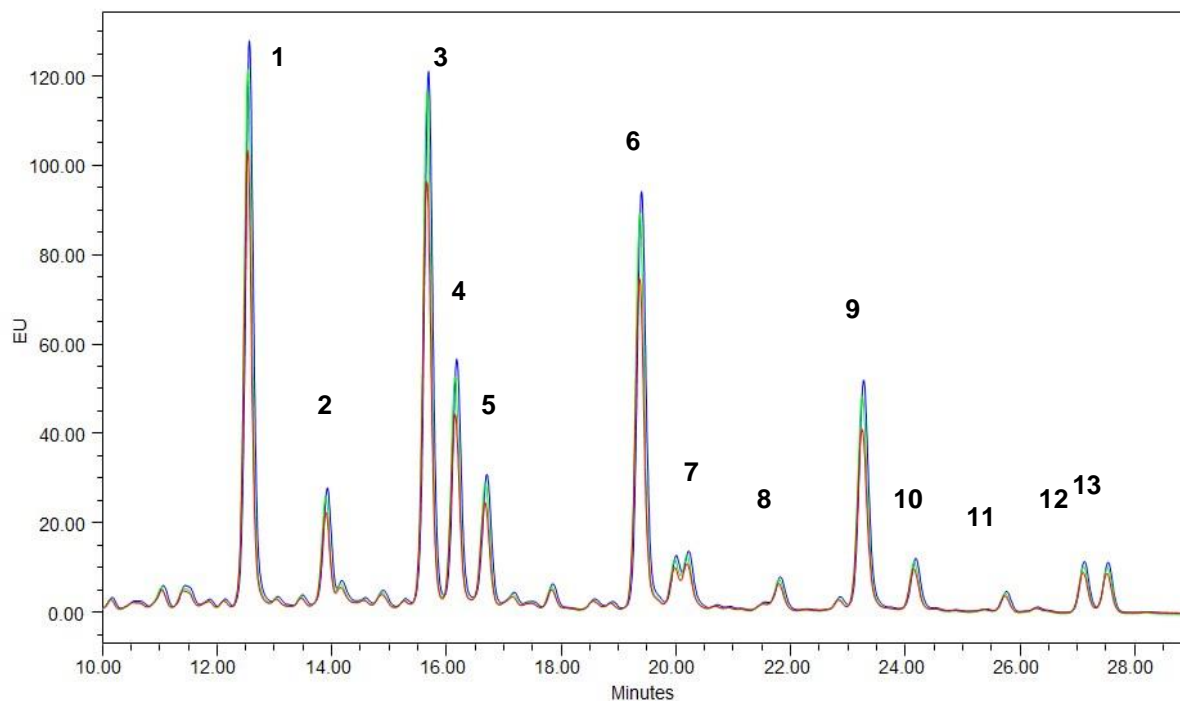
### LudgerPure™ Procainamide Labelled IGG N-Glycan Library

Cat. #: CPROC-IGG-02  
Size: approx. 50 pmol

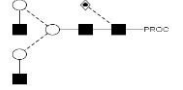
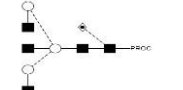
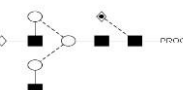
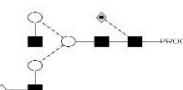
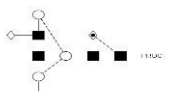
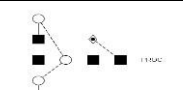
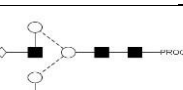
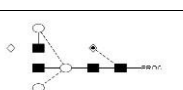
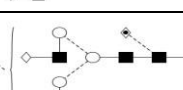
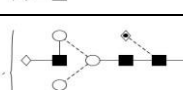
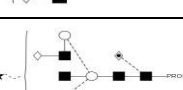
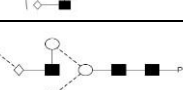
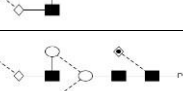
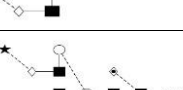
Batch: B56U-02  
Expiry: 30<sup>th</sup> Jun 2020

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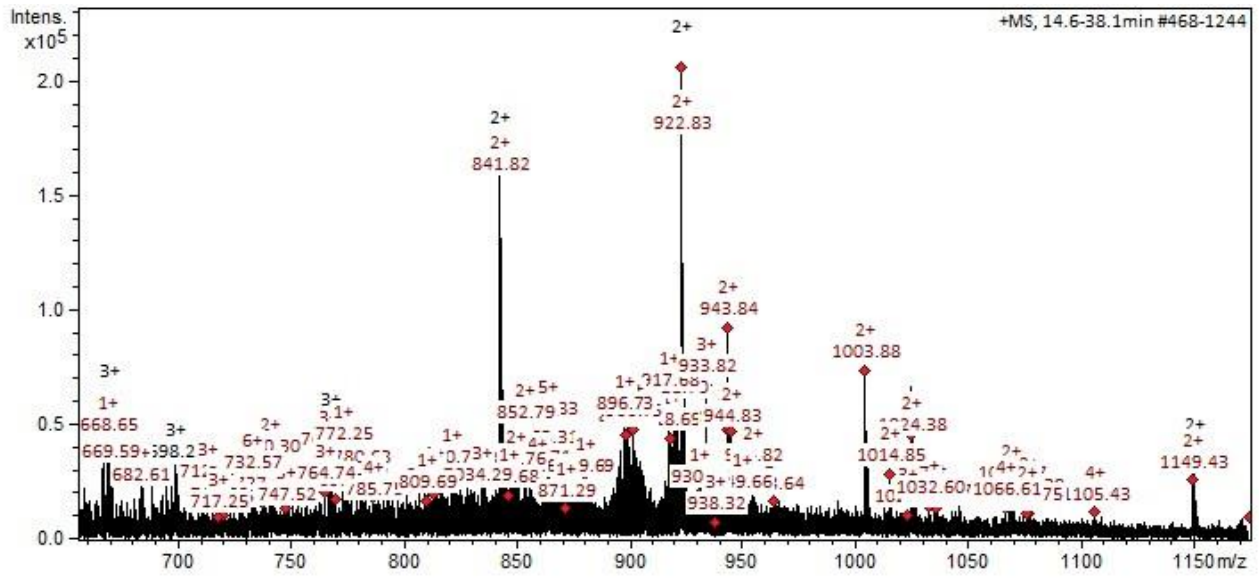
**Amount:** sample vial determined to contain 42.9 pmols total glycan (quantitation performed using peaks 1-10 in figure 1) – Test performed 17 Jul 2015



**Figure 1:** HILIC HPLC profile of Procainamide labelled IgG N-glycans (see method conditions below) (Cat. #: CPROC-IGG-02, Batch B56U-02).

Peak ID	Full name	Short name	Structure	GU value	% relative peak area
1	F(6)A2	FA2		5.74	18.0
2	F(6)A2B	FA2B		6.11	4.0
3	F(6)A2[6]G(4)1	FA2G1		6.56	18.2
4	F(6)A2[3]G(4)1	FA2G1		6.68	8.7
5	F(6)A2[6]BG(4)1	FA2BG1		6.81	4.9
	F(6)A2[3]BG(4)1	FA2BG1			
6	F(6)A2G(4)2	FA2G2		7.49	15.1
7	F(6)A2BG(4)2	FA2BG2		7.70	1.9
8	A2G(4)2S1	A2G2S1		8.11	1.4
9	F(6)A2G(4)2S1	FA2G2S1		8.49	9.3
10	F(6)A2BG(4)2S <sub>1</sub>	FA2BG2S1		8.72	2.2
11	A2G(4)2S2	A2G2S2		9.15	0.8
12	F(6)A2G(4)2S2	FA2G2S2		9.52	1.9
13	F(6)A2BG(4)2S <sub>2</sub>	FA2BG2S2		9.64	1.9

**Table 1:** Names, structures and GU values of each peak determined from the HILIC HPLC profile of Procainamide labelled IgG N-glycans (Cat. #: CPROC-IGG-02, Lot No. B56U-02).



**Figure 2:** Positive ion mass spec analysis of procainamide labelled Glycan Sample. No significant unlabelled glycan peak present. (Cat. #: CPROC-IGG-02, Batch B56U-02).

**Procainamide glycans eluted under the following HPLC conditions:**

Column: Waters BEH Glycan 1.7 $\mu$ m column (150mm)

Temperature: 40 °C

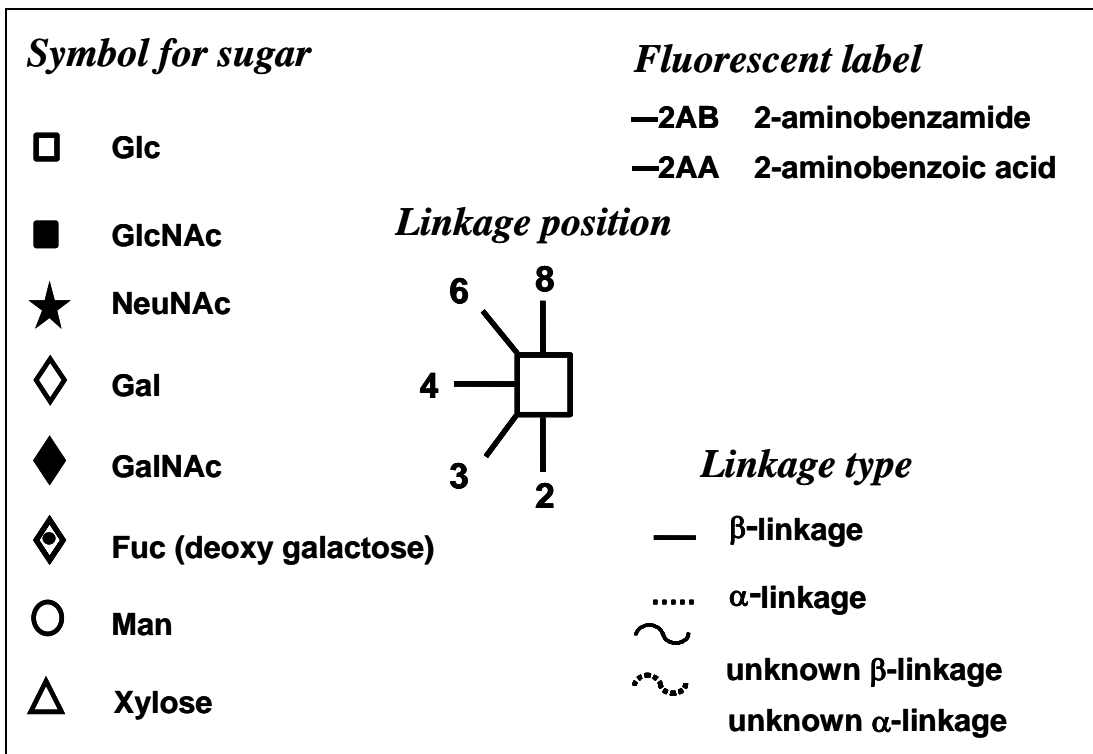
Solvent A: 50mM ammonium formate pH 4.4     Solvent B: 100 % acetonitrile

Gradient:

Time (min)	%B	Flow (ml/min)
0.0	72	0.4
40.50	57	0.4
43.50	0	0.2
45.50	0	0.2
46.50	72	0.2
48.50	72	0.4
75.00	72	0.4

Detector: Waters Acuity FLR

Excitation wavelength: 310 nm     Emission wavelength: 370 nm



**Figure 2:** GlycoBase glycan structure key.