CERTIFICATE OF ANALYSIS

PRODUCT NAME:	AdvanceBio InstantAB Human IgG N-glycan library
PRODUCT CODE:	GKIB-005
LOT NUMBER:	DP16K0801Z
PACK SIZE:	70 pmol (qualitative standard for glycan identification)
FORM:	Dry solid
STORAGE:	Store at –20 °C in the dark before and after reconstitution
EXPIRATION:	September 2026
STRUCTURE :	The Human IgG N-Linked Glycan Library consists of complex biantennary oligosaccharides consistent with N-glycans on normal human IgGs[1,2,3,4] (see Table 1). The reducing termini are derivatized with the fluorescent dye, InstantAB.

Quality Control:

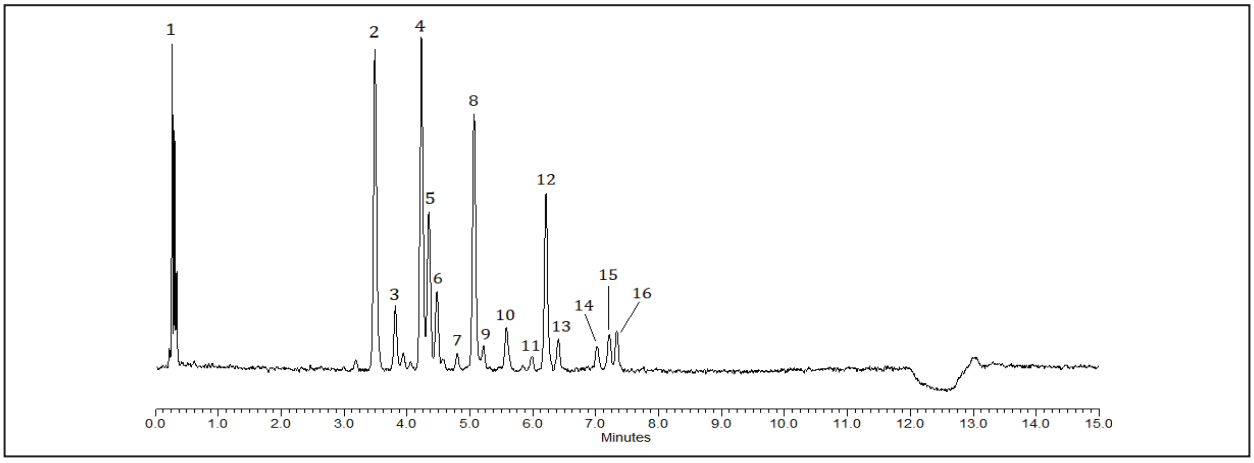
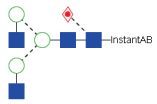
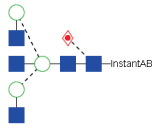


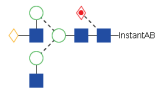
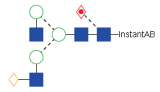
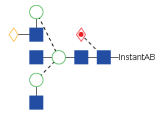
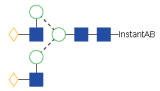
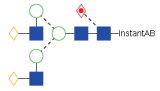
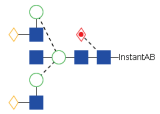
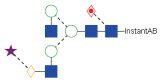
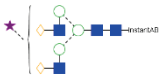
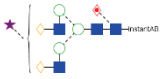
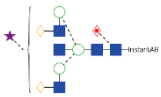
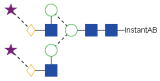
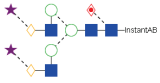
Figure 1 - **UHPLC Results**: 2–4 pmol (1 µL, aqueous) of the InstantAB-labeled library was injected on a UHPLC System (Waters ACQUITY H Class) utilizing a 15-minute method under the conditions below:

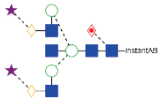
Time (min)	Flow (mL/min)	% ACN	% Buffer
0.0	1.0	75.0	25.0
12.0	1.0	52.5	47.5
12.1	0.5	40.0	60.0
12.5	0.5	40.0	60.0
12.6	0.5	75.0	25.0
12.7	1.0	75.0	25.0
15.0	1.0	75.0	25.0

Column: Waters ACQUITY UPLC BEH Glycan Column (1.7 µm, 2.1 x 100 mm)
ACN: Acetonitrile
Buffer: 100 mM ammonium formate, pH 4.4
Flow rate: As stated in table, in mL/min
Temperature: 60 °C
Max Pressure: 15,000 psi
Fluorescence Detection: λ_{ex} = 278 nm, λ_{em} = 344 nm

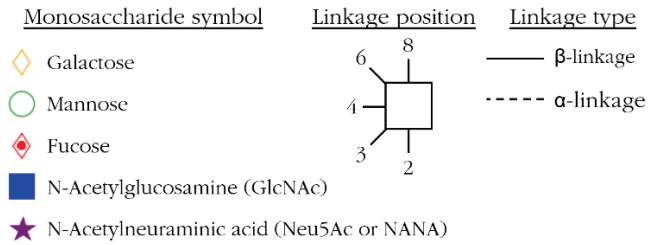
Table 1 - Peak Identification of InstantAB Labeled Human IgG N-Linked Glycan Library

Peak Number	Glycan Identification	Agilent	Common	Oxford (New)	Structure[5,6]
1	Free Dye (InstantAB)				
2	Asialo-, agalacto- biantennary with core fucose	NGA2F	G0F	F(6)A2	
3	Asialo-, agalacto- biantennary with core fucose and with bisecting N-Acetylglucosamine	NGA2FB	G0FB	F(6)A2B	

Peak Number	Glycan Identification	Agilent	Common	Oxford (New)	Structure[5,6]
4	Asialo-, monogalactosylated biantennary with core fucose	NA2G1F	G1F[6]	F(6)A2[6]G(4)1	
5	Asialo-, mono-galactosylated biantennary with core fucose	NA2G1F	G1F[3]	F(6)A2[3]G(4)1	
6	Asialo, mono-galactosylated biantennary, core substituted with fucose and bisecting N-Acetylglucosamine	NA2G1FB	G1FB	F(6)A2[6]BG(4)1	
7	Asialo, galactosylated biantennary	NA2	G2	A2G(4)2	
8	Asialo, galactosylated biantennary with core fucose	NA2F	G2F	F(6)A2G(4)2	
9	Asialo, galactosylated biantennary with core fucose and bisecting N-Acetylglucosamine	NA2FB	G2FB	F(6)A2BG(4)2	
10	Mono-α(2-6)-sialylated, mono-galactosylated biantennary with core fucose	NA2G1FS1	G1FS1	F(6)A2[3]G(4)1S(6)1	
11	Mono-α(2-6)-sialylated, galactosylated biantennary	A1	G2S1	A2G(4)2S(6)1	
12	Mono-α(2-6)-sialylated, galactosylated biantennary with core fucose	A1F	G2FS1	F(6)A2G(4)2S(6)1	
13	Mono-α(2-6)-sialylated, galactosylated biantennary with core fucose and bisecting N-Acetylglucosamine	A1FB	G2FS1B	F(6)A2BG(4)2S(6)1	
14	Di-sialylated, galactosylated biantennary	A2	G2S2	A2G(4)2S(6)2	
15	Di-sialylated, galactosylated biantennary, with core fucose	A2F	G2FS2	F(6)A2G(4)2S(6)2	

Peak Number	Glycan Identification	Agilent	Common	Oxford (New)	Structure[5,6]
16	Di-sialylated, galactosylated biantennary, with core fucose and bisecting N-Acetylglucosamine	A2FB	G2FS2B	F(6)A2BG(4)2S(6)2	

Structure Key[5,6]:



Structural Analysis: The identity of the unlabeled glycan library is confirmed by MALDI-TOF mass spectrometry[7,8] or LC-MS. Agreement was found between the results from mass spectrometry and UHPLC[9].

Application: Confirmation of identification of specific N-glycans by UHPLC analysis for samples prepared on the GlykoPrep Sample Preparation Platform.

Handling & Reconstitution:

The labeled library is shipped as a dried solid. Use ultra-pure water or an aqueous buffer to dissolve the glycan (see Directions for Use for suggested volume).

Allow the unopened vial to reach ambient temperature and tap on a solid surface to ensure that most of the material is at the bottom of the vial. Gently remove the cap, add the desired volume of water or buffer, re-cap and mix thoroughly to re-dissolve all the oligosaccharide. For maximal recovery, ensure that the cap lining is also rinsed and centrifuge the reconstituted vial briefly before use.

Make sure that any glassware, plasticware, solvents or reagents used are free of glycosidases and carbohydrate contaminants.

Minimize exposure to elevated temperatures or extremes of pH.

Store the reconstituted glycan at –20 °C. Allow the vial to equilibrate to ambient temperature before use.

Directions For Use: The amount of InstantAB-labeled library standard injected on a UHPLC column is typically 2–4 pmol of total glycan. For our Quality Control testing, one vial was dissolved in 30 µL of water and 1 µL injected on the ACQUITY column. For larger injection volumes or other LC systems we recommend further dilution as necessary for compatibility with your mobile phase.

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