"Supplementary Data"

Chemo-enzymatic Synthesis of the Carbohydrate Antigen *N*-Glycolylneuraminic Acid from Glucose

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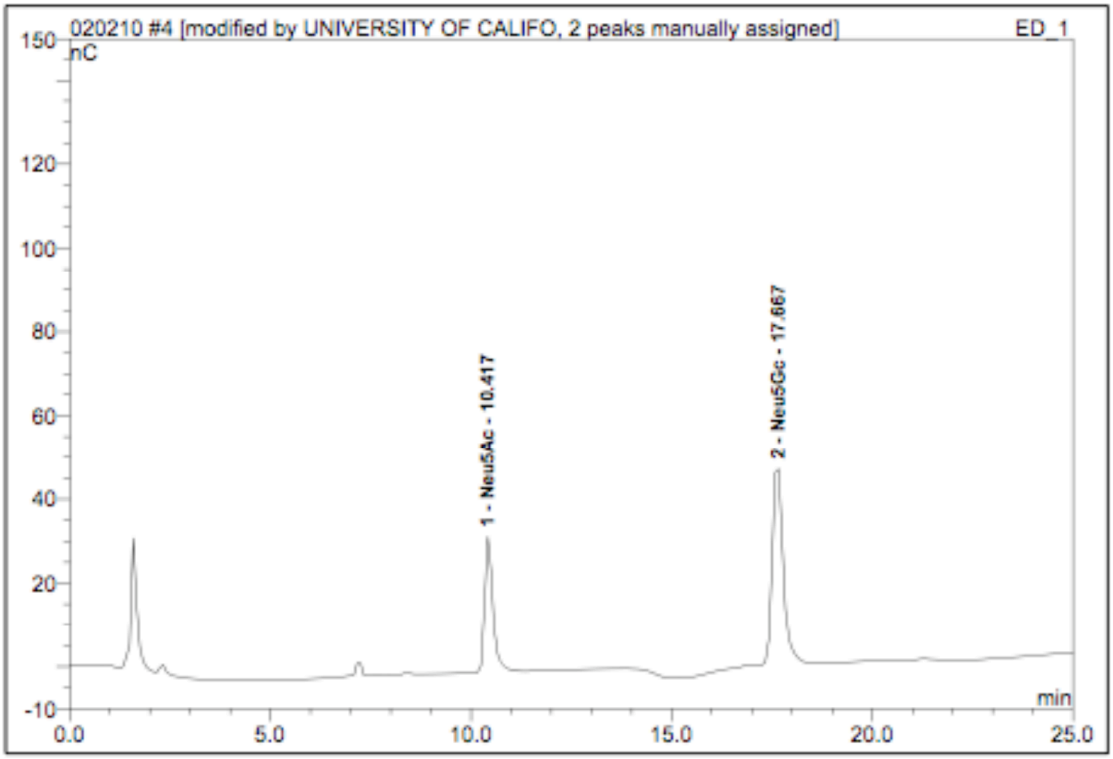
4 SA Std Mixt 1nM

Sample Name:	**SA Std Mixt 1nM**	*Injection Volume:*	**100.0**
Vial Number:	**2**	*Channel:*	**ED_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Sialic Acid-PA1**	*Bandwidth:*	**n.a.**
Quantif. Method:	**SIA**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/2/2010 16:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**33.17**	*Sample Amount:*	**1.0000**

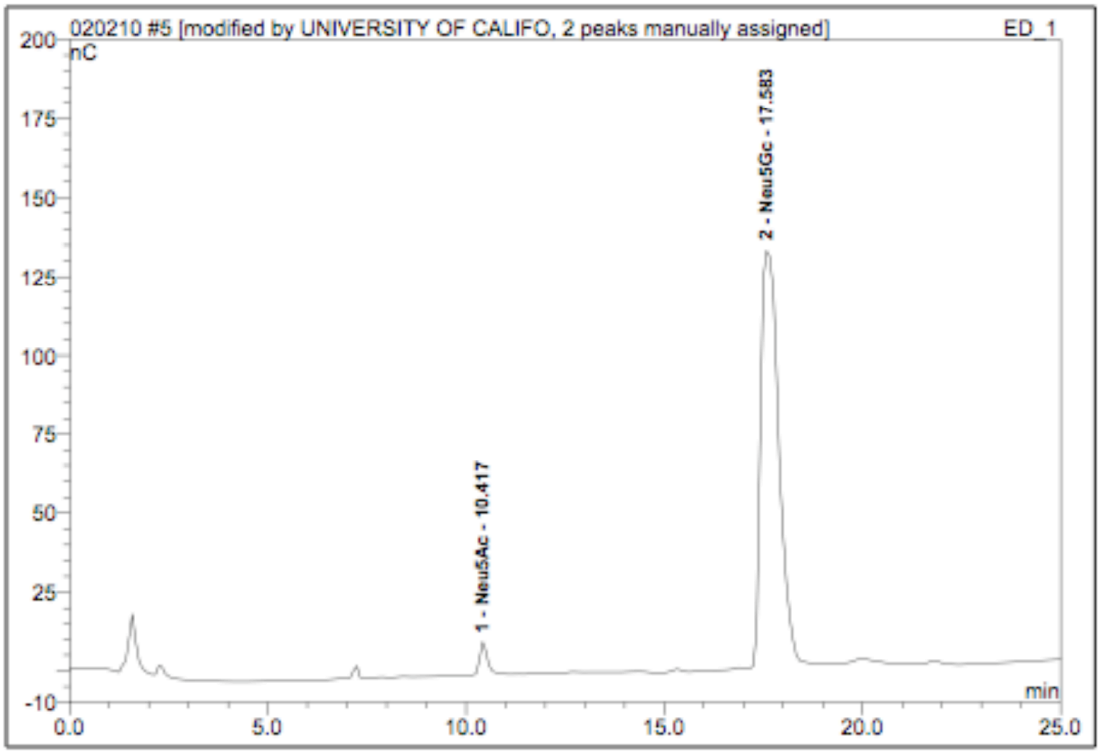


No.	Ret.Time min	Peak Name	Height nC	Area nC*min	Rel.Area %	Amount nM	Type
1	10.42	Neu5Ac	32.330	7.768	33.97	1.000	BMB*^
2	17.67	Neu5Gc	46.737	15.098	66.03	1.000	BMB*^
Total:			79.067	22.866	100.00	2.000	

Figure S1. Pulsed amperometry of Neu5Gc and Neu5Ac standard.

5 # 1 Neu5Gc+1.9%Ac (1ug)

Sample Name:	**# 1 Neu5Gc+1.9%Ac (1ug)**	*Injection Volume:*	**100.0**
Vial Number:	**3**	*Channel:*	**ED_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Sialic Acid-PA1**	*Bandwidth:*	**n.a.**
Quantif. Method:	**SIA**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/2/2010 16:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**33.17**	*Sample Amount:*	**1.0000**

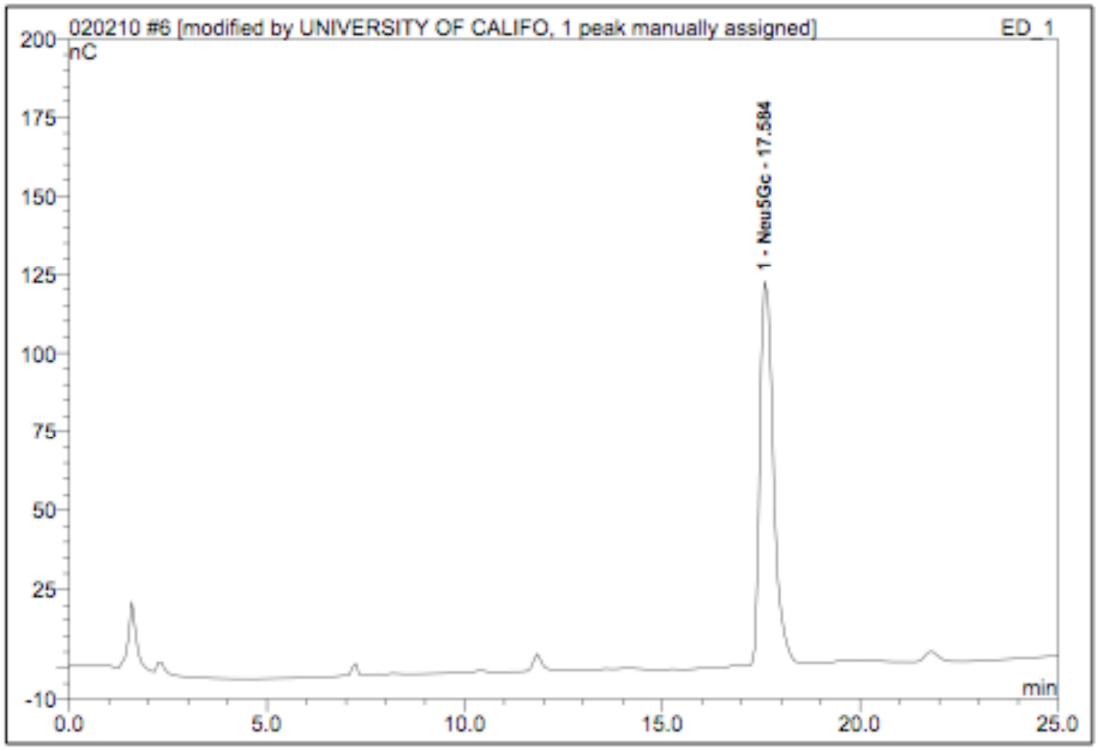


No.	Ret.Time min	Peak Name	Height nC	Area nC*min	Rel.Area %	Amount nM	Type
1	10.42	Neu5Ac	10.372	2.347	3.23	0.302	BMB*^
2	17.58	Neu5Gc	132.121	70.314	96.77	4.657	BMB*^
Total:			142.494	72.661	100.00	4.959	

Figure S2. Pulsed amperometric analysis of commercial Neu5Gc. Found to contain approx 3 % Neu5Ac.

6 #2 Neu5Gc (1ug)

Sample Name:	**#2 Neu5Gc (1ug)**	*Injection Volume:*	**100.0**
Vial Number:	**4**	*Channel:*	**ED_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Sialic Acid-PA1**	*Bandwidth:*	**n.a.**
Quantif. Method:	**SIA**	*Dilution Factor:*	**1.0000**
Recording Time:	**2/2/2010 17:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**33.17**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height nC	Area nC*min	Rel.Area %	Amount nM	Type
1	17.58	Neu5Gc	121.740	48.117	100.00	3.187	BMB*^
Total:			121.740	48.117	100.00	3.187	

Figure S3. Pulsed amperometric analysis of synthesized Neu5Gc. No Neu5Ac contamination was seen.