Supporting Information for

Measuring the composition and stable-isotope labeling of algal biomass carbohydrates by gas chromatography/mass spectrometry

Brian O. McConnell and Maciek R. Antoniewicz*

Department of Chemical and Biomolecular Engineering, Metabolic Engineering and Systems Biology Laboratory, University of Delaware, Newark, DE 19716, USA

*Corresponding author. E-mail: mranton@udel.edu

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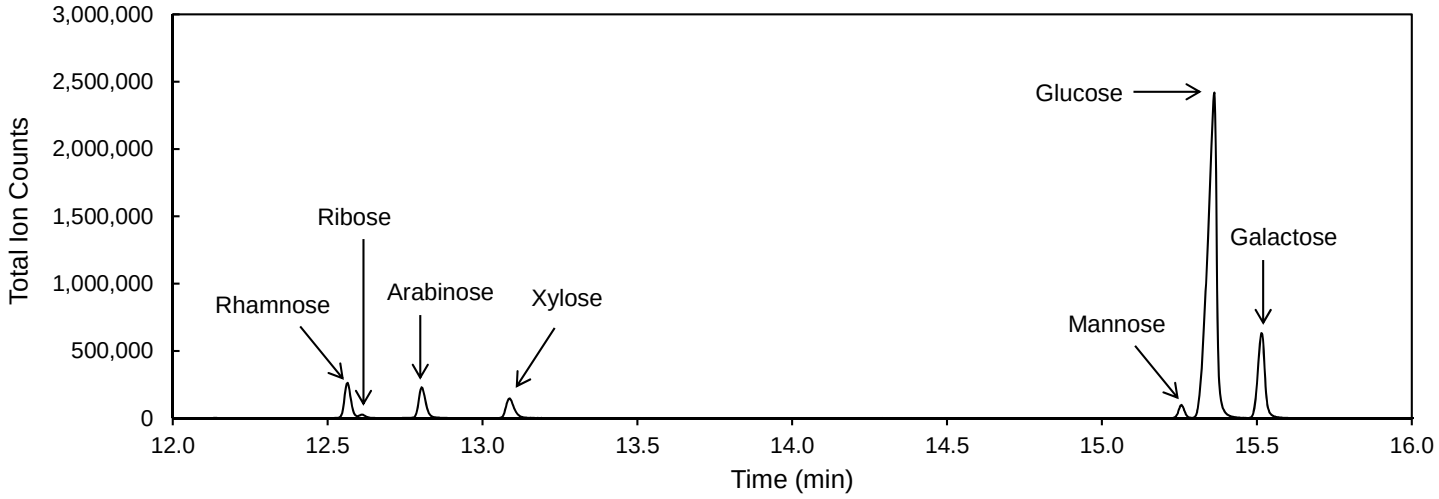

Figure S-1. GC-MS chromatogram of hydrolyzed algae. The identities of all peaks were validated with ^{13}C-labeled standards.

Table S-2. Mass isotopomer distributions of biomass carbohydrates for *C. vulgaris* UTEX 395 grown in batch cultures.

MEASURED MASS ISOTOPOMER DISTRIBUTIONS					CORRECTED MASS ISOTOPOMER DISTRIBUTIONS					ISOTOPIC LABELING				
	Autotrophic 9% D2O	Autotrophic 18% D2O	Heterotrophic 9% [U-13C]glucose	Heterotrophic 18% [U-13C]glucose		Autotrophic 9% D2O	Autotrophic 18% D2O	Heterotrophic 9% [U-13C]glucose	Heterotrophic 18% [U-13C]glucose		Autotrophic 9% D2O	Autotrophic 18% D2O	Heterotrophic 9% [U-13C]glucose	Heterotrophic 18% [U-13C]glucose
Xyl284 (M0)	63.6	47.4	71.8	59.1	Xyl284 (M0)	74.8	55.8	84.3	69.4		[%2H]	[%2H]	%13C]	%13C]
Xyl284 (M1)	28.4	37.4	15.8	18.4	Xyl284 (M1)	21.9	35.1	5.7	11.1	Xylose	9.5	17.9	9.3	18.0
Xyl284 (M2)	6.4	12.2	4.1	7.9	Xyl284 (M2)	2.7	8.0	2.1	6.0	Arabinose	9.6	18.4	8.9	17.2
Xyl284 (M3)	1.2	2.4	2.9	4.4	Xyl284 (M3)	0.4	0.9	2.7	3.9	Mannose	9.7	18.6	8.6	17.7
Xyl284 (M4)	0.2	0.4	4.6	8.9	Xyl284 (M4)	0.1	0.2	4.8	9.4	Glucose	9.2	18.0	8.7	17.4
Xyl284 (M5)	0.1	0.1	0.9	1.3	Xyl284 (M5)	0.1	0.1	0.4	0.4	Galactose	9.7	18.6	8.6	17.4
Arab284 (M0)	63.9	46.7	71.5	60.2	Arab284 (M0)	75.2	54.9	84.1	70.6	AVG	9.5	18.3	8.8	17.6
Arab284 (M1)	28.1	37.2	16.6	18.5	Arab284 (M1)	21.4	35.1	6.7	10.9	SD	0.2	0.3	0.3	0.3
Arab284 (M2)	5.9	12.8	5.0	8.1	Arab284 (M2)	2.2	8.7	2.9	6.2					
Arab284 (M3)	1.6	2.6	1.9	3.5	Arab284 (M3)	1.0	1.0	1.4	2.8					
Arab284 (M4)	0.2	0.5	4.4	8.7	Arab284 (M4)	0.1	0.2	4.8	9.3					
Arab284 (M5)	0.2	0.2	0.6	1.1	Arab284 (M5)	0.2	0.2	0.2	0.2					
Mann370 (M0)	55.0	36.2	67.4	55.1	Mann370 (M0)	67.9	44.7	83.2	67.9					
Mann370 (M1)	32.2	39.4	17.8	18.1	Mann370 (M1)	26.2	39.5	5.6	8.9					
Mann370 (M2)	9.9	17.6	7.1	10.5	Mann370 (M2)	4.9	12.5	4.8	8.8					
Mann370 (M3)	2.3	5.2	2.7	5.3	Mann370 (M3)	0.8	2.7	1.9	4.3					
Mann370 (M4)	0.4	1.2	0.8	1.9	Mann370 (M4)	0.1	0.5	0.4	1.3					
Mann370 (M5)	0.1	0.3	3.7	7.9	Mann370 (M5)	0.0	0.1	4.1	8.9					
Mann370 (M6)	0.0	0.1	0.6	1.2	Mann370 (M6)	0.0	0.0	0.0	0.0					
Gluc370 (M0)	55.3	37.0	67.9	56.2	Gluc370 (M0)	68.3	45.7	83.7	69.3					
Gluc370 (M1)	32.7	39.3	17.5	17.7	Gluc370 (M1)	26.7	39.1	5.2	8.2					
Gluc370 (M2)	9.5	17.9	6.8	10.0	Gluc370 (M2)	4.3	12.9	4.5	8.2					
Gluc370 (M3)	1.9	4.8	2.6	5.1	Gluc370 (M3)	0.4	2.1	1.8	4.1					
Gluc370 (M4)	0.3	0.9	0.7	1.8	Gluc370 (M4)	0.0	0.2	0.4	1.1					
Gluc370 (M5)	0.2	0.2	4.0	8.1	Gluc370 (M5)	0.2	0.0	4.5	9.1					
Gluc370 (M6)	0.0	0.0	0.6	1.1	Gluc370 (M6)	0.0	0.0	0.0	0.0					
Galact370 (M0)	54.3	35.9	68.5	57.4	Galact370 (M0)	67.0	44.3	84.5	70.7					
Galact370 (M1)	33.3	39.3	17.4	17.5	Galact370 (M1)	27.7	39.4	4.8	7.6					
Galact370 (M2)	9.9	18.5	6.3	8.9	Galact370 (M2)	4.6	13.6	3.9	7.0					
Galact370 (M3)	2.0	5.1	2.3	4.5	Galact370 (M3)	0.5	2.3	1.5	3.6					
Galact370 (M4)	0.3	1.0	0.7	1.7	Galact370 (M4)	0.1	0.2	0.4	1.1					
Galact370 (M5)	0.1	0.3	4.3	8.9	Galact370 (M5)	0.0	0.1	4.9	10.1					
Galact370 (M6)	0.0	0.0	0.6	1.3	Galact370 (M6)	0.0	0.0	0.0	0.0					