

## **Supplementary information**

### **Characterizing the physical properties and cell compatibility of phytoglycogen extracted from different sweet corn varieties**

Renjie Liu<sup>1</sup>, Susan K. Boehlein<sup>2</sup>, William F. Tracy<sup>3</sup>, Marcio F. R. Resende Jr.<sup>2, \*</sup>, and Gregory A. Hudalla<sup>1, \*</sup>

<sup>1</sup> J. Crayton Pruitt Family Department of Biomedical Engineering, Wertheim College of Engineering, University of Florida, Gainesville, FL 32611, USA

<sup>2</sup> Horticultural Sciences Department, University of Florida, Gainesville, FL, 32611, USA

<sup>3</sup> Department of Agronomy, University of Wisconsin-Madison, Madison, WI, 53706

\* indicates corresponding authors

Author contact:

Gregory A. Hudalla, PhD  
Biomedical Sciences J293, PO BOX 116131  
1275 Center Drive  
Gainesville, FL 32611  
ghudalla@bme.ufl.edu  
(352) 273-9326

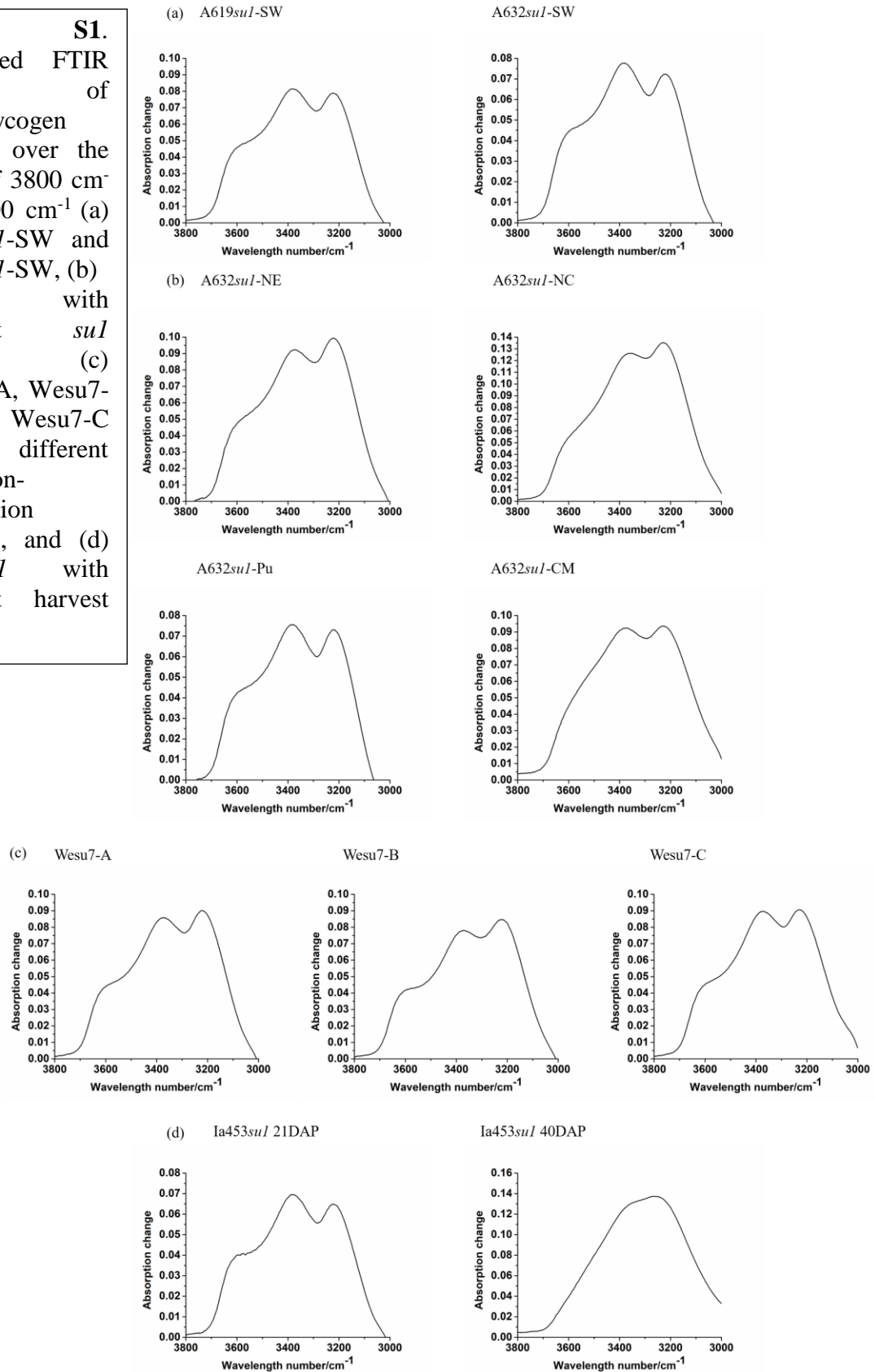
Marcio F. R. Resende Jr.  
Fifield Hall 2135, PO BOX 110690  
2550 Hull Road  
Gainesville, FL 32611  
mresende@ufl.edu  
(352) 273-4772

**Table S1.** Summary of average hydrodynamic diameter of Wesu7 extracts (*su1*-NE) with different processing steps.

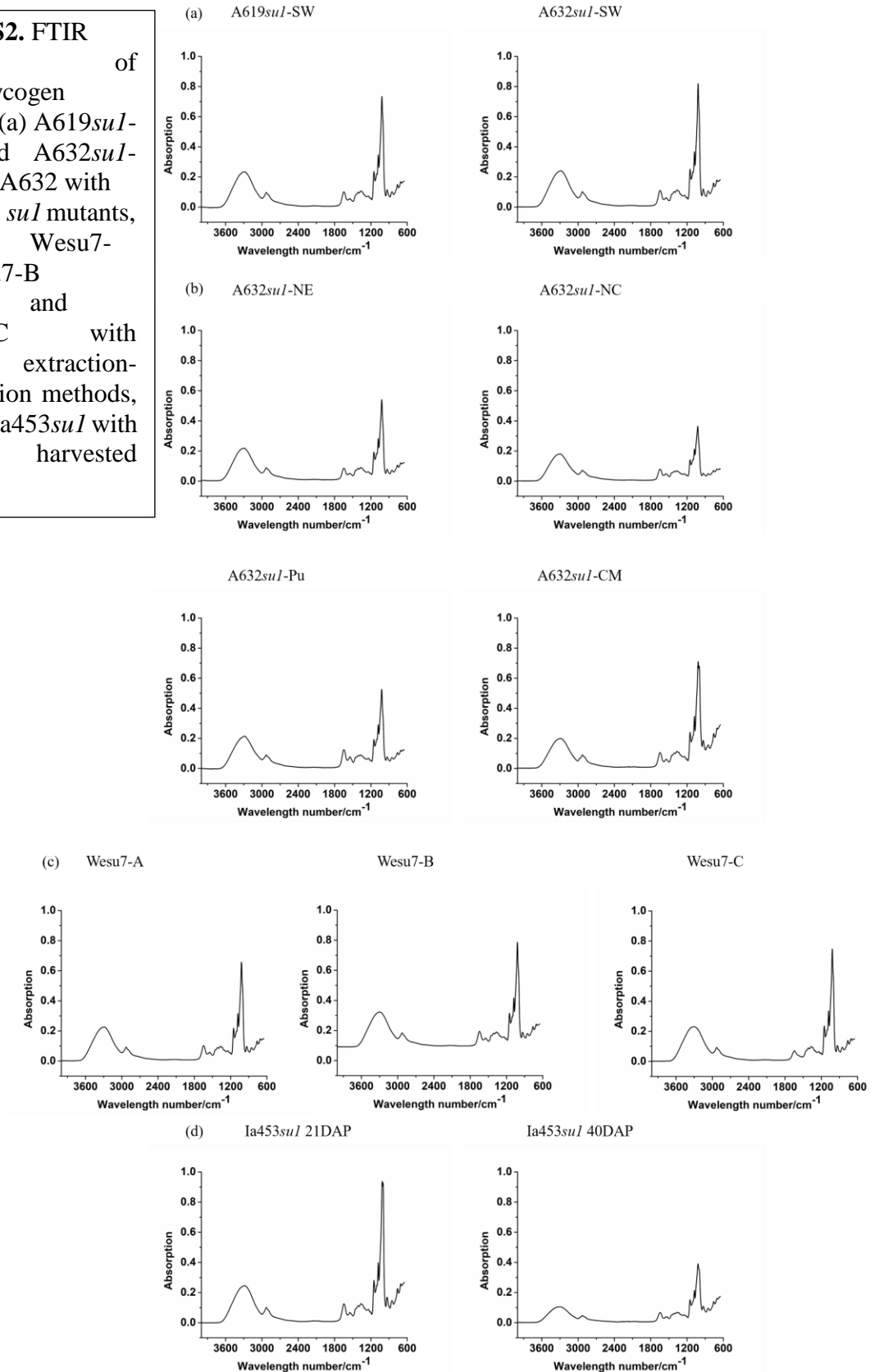
	Diameter	PDI	Extraction method
Wesu7-B ( <i>su1</i> -NE)	62.8 ± 0.986	0.249	Ethanol precipitation + deproteination
Wesu7-C ( <i>su1</i> -NE)	61.8	0.217	Ethanol precipitation + protease treatment

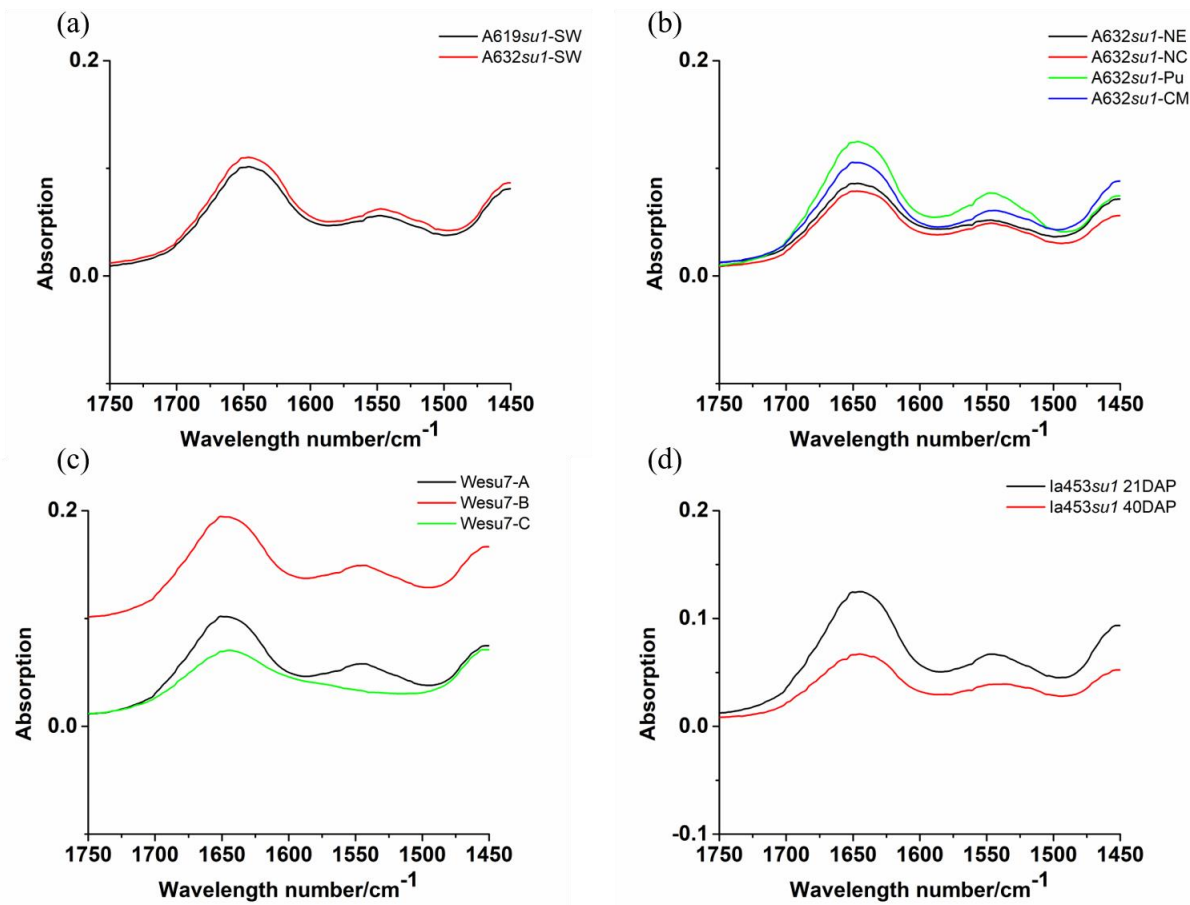
Data collected in 1X PBS; all data reported are based on intensity-weighted mean hydrodynamic diameter.

**Figure S1.** Subtracted FTIR spectra of phytoglycogen extracts over the range of  $3800\text{ cm}^{-1}$  to  $3000\text{ cm}^{-1}$  (a) A619*suI*-SW and A632*suI*-SW, (b) A632 with different *suI* mutants, (c) Wesu7-A, Wesu7-B and Wesu7-C with different extraction-purification methods, and (d) Ia453*suI* with different harvest times.



**Figure S2. FTIR spectra of phytylglycogen extracts (a) A619*suI*-SW and A632*suI*-SW, (b) A632 with different *suI* mutants, (c) Wesu7-A, Wesu7-B and Wesu7-C with different extraction-purification methods, and (d) Ia453*suI* with different harvested times.**





**Figure S3.** FTIR spectra of dry phytylglycogen extracts over the range of 1750 cm<sup>-1</sup> to 1450 cm<sup>-1</sup> (amide I) (a) A619*su1*-SW and A632*su1*-SW, (b) A632 with different *su1* mutants, (c) Wesu7-A, Wesu7-B and Wesu7-C with different extraction-purification methods, and (d) Ia453*su1* with different harvested times.