

# **Anomalous uptake and circulatory characteristics of the plant-based small RNA MIR2911**

Jian Yang<sup>1</sup>, Tremearne Hotz<sup>2</sup>, LaCassidy Broadnax<sup>1</sup>, Mark Yarmarkovich<sup>3</sup>, Ismail Elbaz<sup>1</sup>, Kendal D Hirschi<sup>1,4,\*</sup>

<sup>1</sup>USDA/ARS Children's Nutrition Research Center, Baylor College of Medicine, 1100 Bates Street, Houston, TX 77030

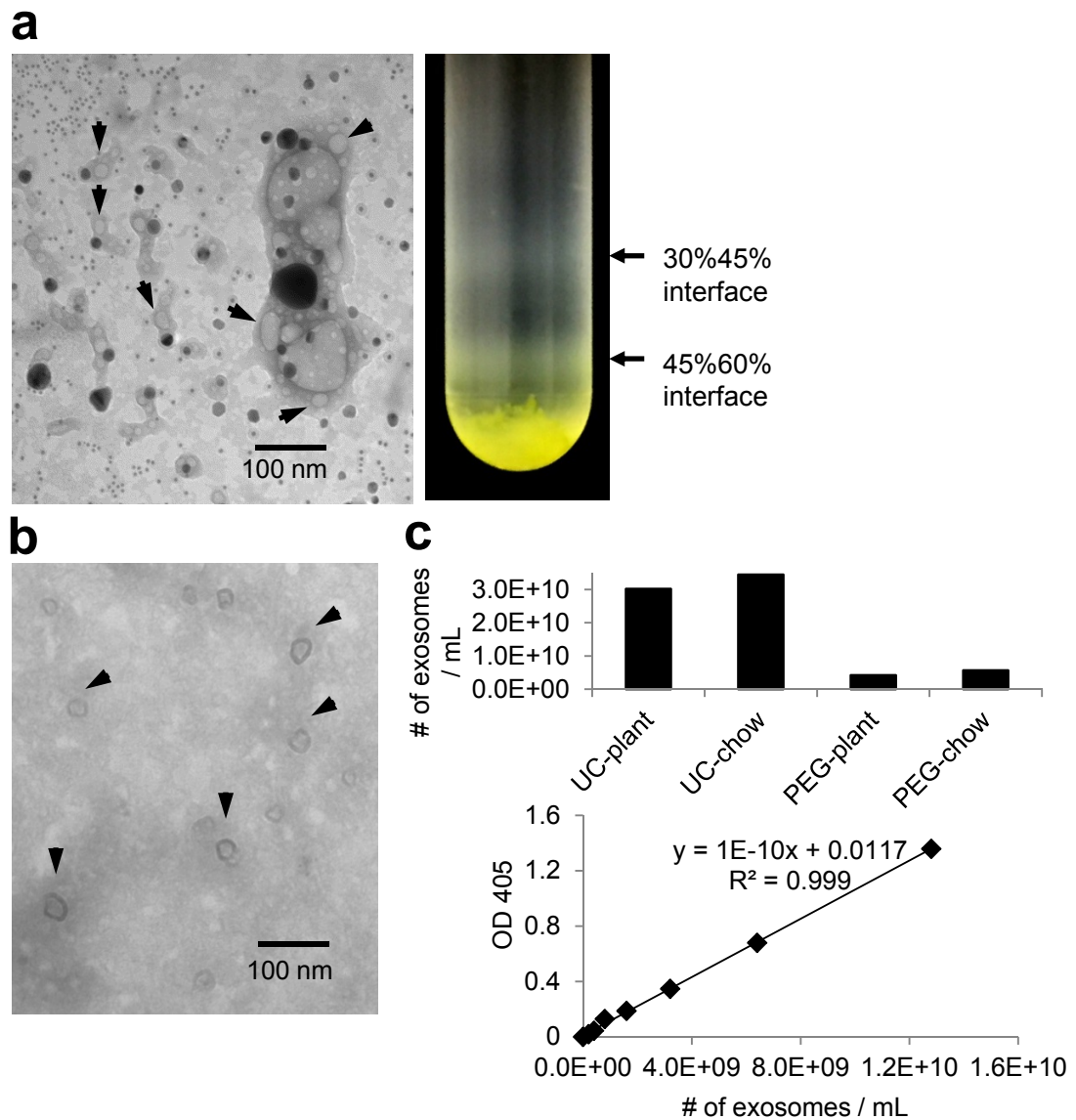
<sup>2</sup>Bates College, 2 Andrews Rd, Lewiston, ME 04240

<sup>3</sup>Cancer Biology, University of Pennsylvania, 3501 Civic Center Boulevard, Philadelphia, PA 19104

<sup>4</sup>Vegetable and Fruit Improvement Center, Texas A&M University, College Station, TX 77845

\*Author to whom correspondence should be addressed: 1100 Bates St, CNRC Room 9016, Houston, Texas 77030; E-mail: kendalh@bcm.edu; Tel.: 713-798-7011; Fax: 713-798-7171

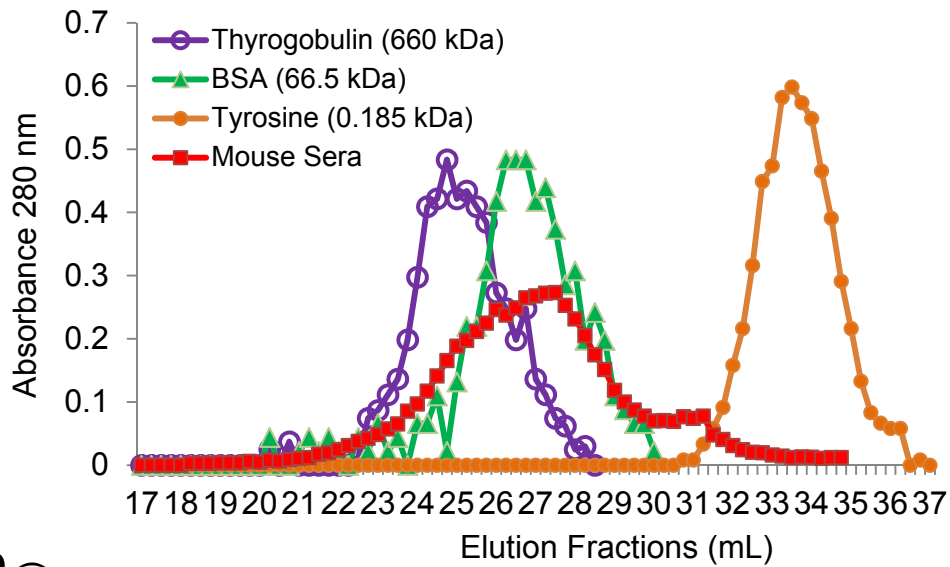
# Figure S1



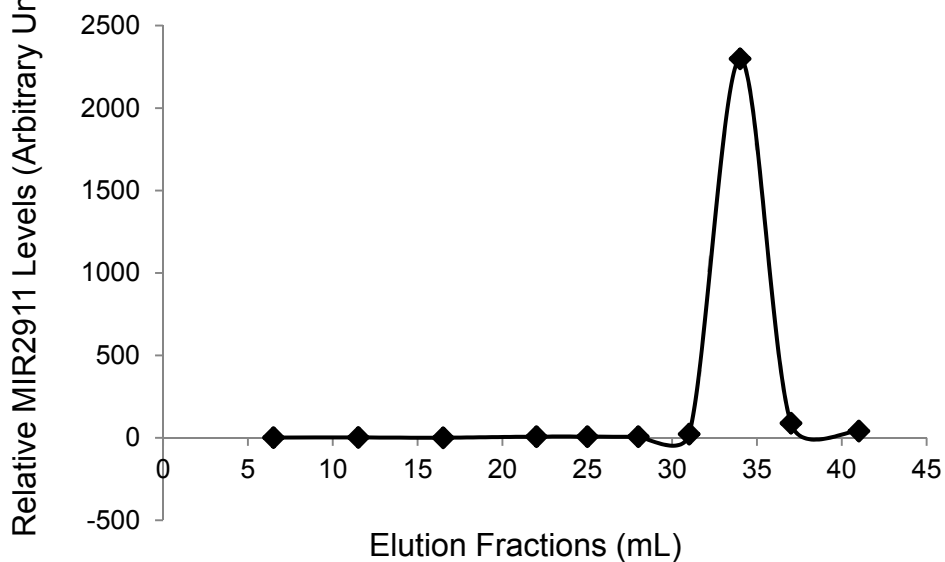
**Supplementary information, Figure S1.** Characterization of EPDENS and exosomes. **(a)** Left: EPDENS from cabbage. Arrow heads point to the EPDENS. Right: EPDEN bands from sucrose gradient. **(b)** Mouse exosomes isolated by ultracentrifugation from mouse serum. Arrow heads point to the exosomes **(c)** Top: Exosomes isolated by Ultracentrifugation protocol (UC) or PEG precipitation protocol (PEG), from mice fed plant based diet (-plant) or chow diet (-chow) were quantified using EXOCRET assay. Bottom: standard curve of serial dilutions of exosomes assayed by EXOCRET assay.

## Figure S2

**a**



**b**



**Supplementary information, Figure S2.** Size-exclusion chromatography of size standards and control samples. **(a)** Size standards thyroglobulin (660 kDa), Bovine Serum Albumin (66.5 kDa), Tyrosine (0.185 kDa), and human sera were fractionated on a Sephacryl S-500 column. Fractions were assayed for protein concentration by absorbance at 280 nm. **(b)** Synthetic MIR2911 (400 pmoles) were fractionated on the same Sephacryl S-500 column. Levels of MIR2911 in fractions were determined by qRT-PCR.