Electronic Supplementary Material (ESI) for Soft Matter.

Supplementary Information

Temperature-Responsive Membrane Permeability of Recombinant Fusion Protein Vesicles

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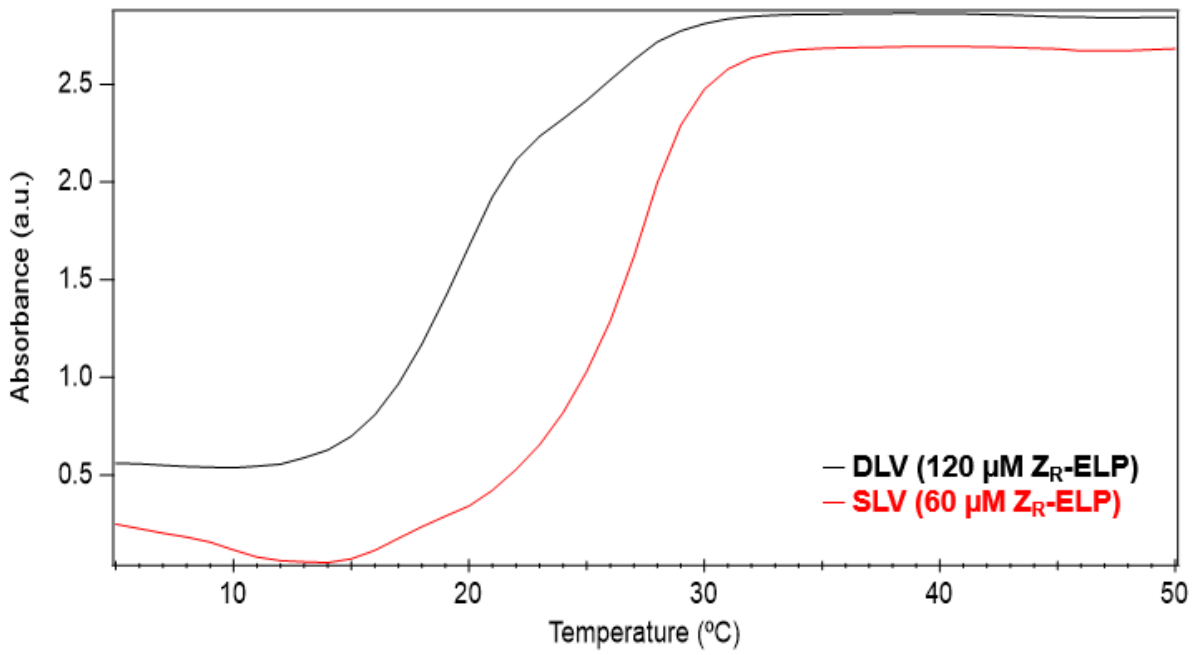

Figure S1. Turbidity profiles of SLV and DLV solutions. The transition temperature of ELP is inversely related to the protein concentrations used for the vesicle assembly conditions. Higher Z_R-ELP concentration for DLV construction resulted in the decrease of transition temperature, as compared to SLV condition[1-3].

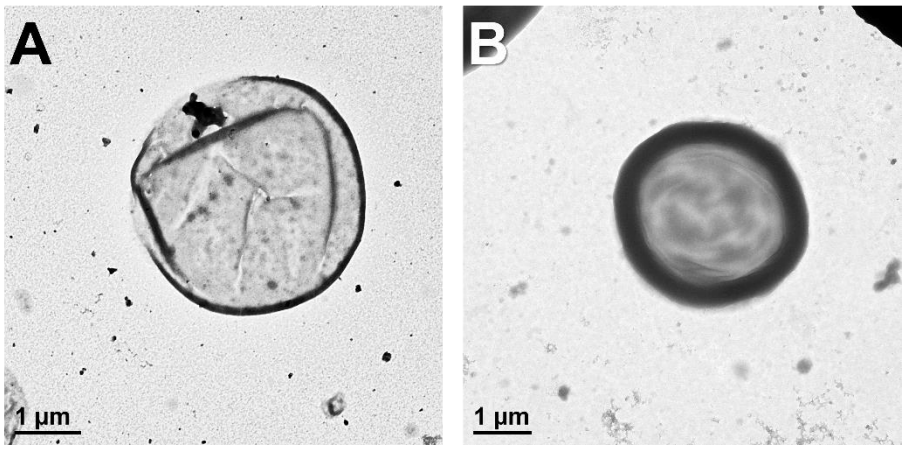

Figure S2. TEM images of SLVs at 25 °C and 37 °C. They retain hollow vesicle structures at 37 °C with membrane permeability changes.

References Cited in Supplementary Information

1. Jang, Y.; Choi, W.; Heller, W.; Ke, Z.; Wright, E.; Champion, J., Engineering Globular Protein Vesicles through Tunable Self-Assembly of Recombinant Fusion Proteins. *Small* **2017,** *13* (36).
2. Meyer, D. E.; Chilkoti, A., Quantification of the Effects of Chain Length and Concentration on the Thermal Behavior of Elastin-like Polypeptides. *Biomacromolecules* **2004,** *5* (3), 846-851.
3. Li, N. K.; Quiroz, F. G.; Hall, C. K.; Chilkoti, A.; Yingling, Y. G., Molecular Description of the LCST Behavior of an Elastin-Like Polypeptide. *Biomacromolecules* **2014,** *15* (10), 3522-3530.