Supporting Information

Characterization of Lipid-Based Hexosomes as Versatile Vaccine Carriers

Letícia Rodrigues[†], *Konstantinos Kyriakos*[‡], *Fabian Schneider*[§], *Hendrik Dietz*[§], *Gerhard Winter*[†], *Christine M. Papadakis*[‡], *and Madlen Hubert*[†,∥,*]

[†]Department of Pharmacy, Pharmaceutical Technology and Biopharmacy, Ludwig-Maximilians-Universität München, Butenandtstraße 5-13, DE-81377 Munich, Germany

[‡]Physics Department, Soft Matter Physics Group, Technische Universität München, James-Franck-Straße 1, DE-85748 Garching, Germany

[§]Physics Department and Institute for Advanced Study, Walter Schottky Institute, Technische Universität München, Am Coulombwall 4a, DE-85748 Garching, Germany

Present Addresses

[∥]Department of Integrative Medical Biology, Umeå University, 901 87 Umeå, Sweden.

[*]Corresponding author: Department of Integrative Medical Biology, Umeå University, 901 87 Umeå, Sweden, E-mail: madlen.hubert@umu.se, Phone: +46 73 6737781.

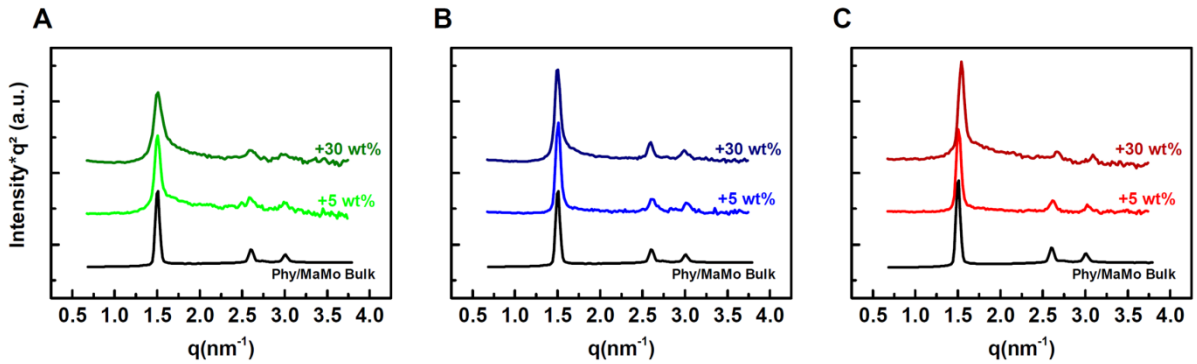

Figure S1. Structure characterization using SAXS of Phy/MaMo (14 wt%) formulations containing poloxamer 407 (A), Pluronic F108 (B), and Myrj 59 (C) at 5 and 30 wt% of total lipid. The black curve represents the non-dispersed bulk phase without stabilizer. Measurements were performed at 25°C. The curves were vertically shifted for clarity.

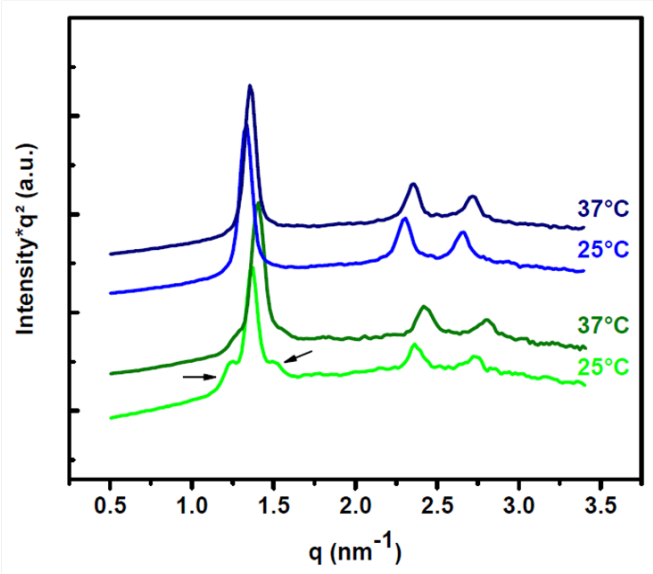

Figure S2. Effect of the headgroup dimension on the internal structure of Phy/MaMo (14 wt%) hexosomes stabilized with 10 wt% poloxamer 407. SAXS data is displayed for hexosomes containing the same molar concentration (ca. 14 mol%) of DDA (green) and Dotap (blue) at 25°C and 37°C. Arrows indicate perturbance of the pure HII peak profile. The curves were vertically shifted for clarity.

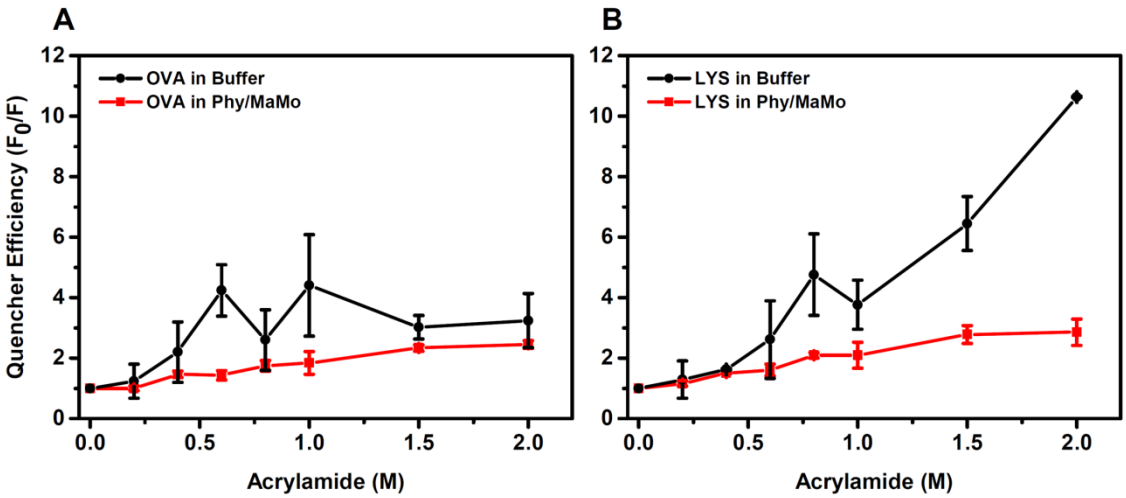

Figure S3. Tryptophan accessibility assay with acrylamide in Phy/MaMo (14 wt%) hexosomes stabilized with 25 wt% poloxamer 407, and loaded with 0.1 wt% (of total lipid) ovalbumin (A) or lysozyme (B). Unquenched protein (F_0); Quenched protein (F). Data is shown as mean ± SD of two independent experiments performed in triplicate.