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Shape Effects of Peptide Amphiphile Micelles for Targeting Monocytes

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Supplemental Figures

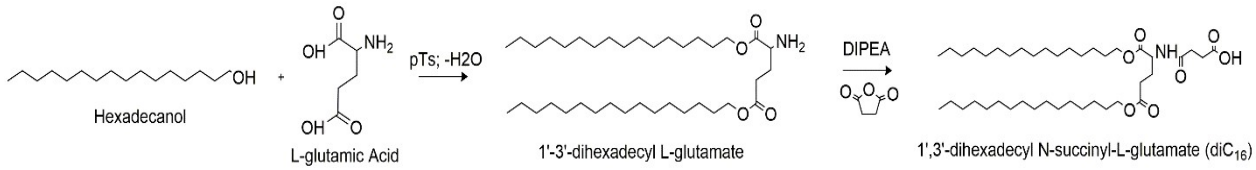

Figure S1. Synthesis of 1'-3'-dihexadecyl L-glutamate through an azeotropic distillation. The resulting product was deprotonated and a spacer molecule (succinic anhydride) was inserted to form the diC_{16} tail.

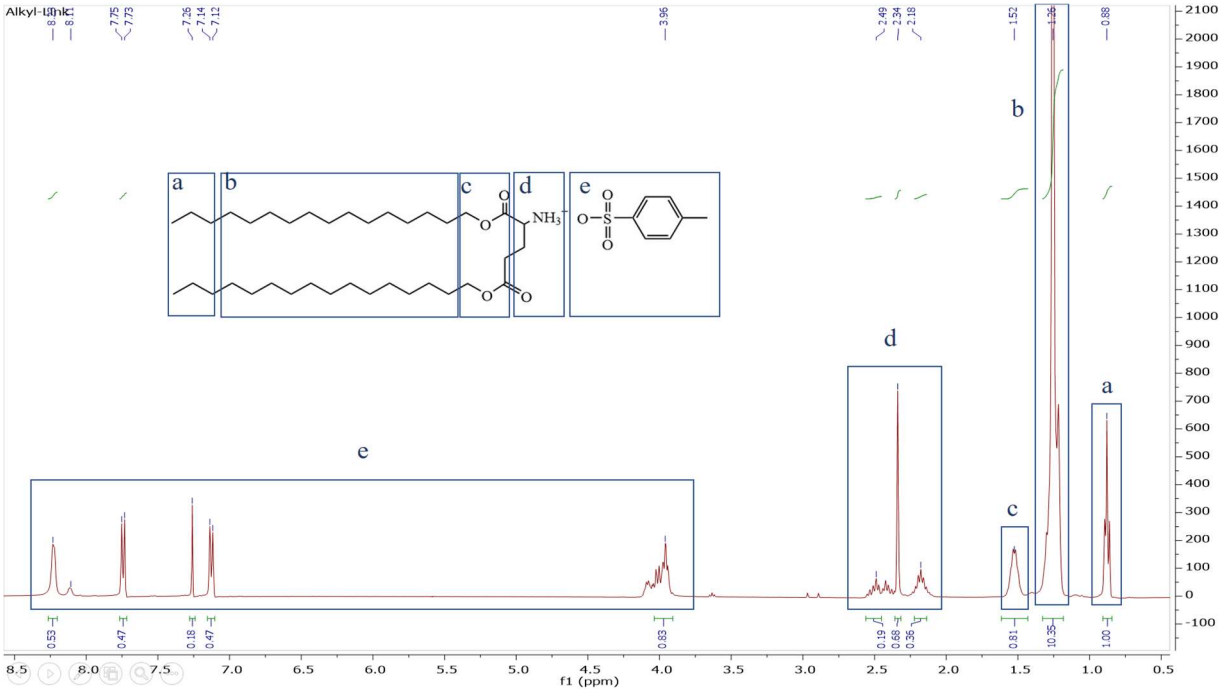

Figure S2. ^{1}H-NMR analysis of 1'-3'-dihexadecyl L-glutamate in $CDCl_3$. The peaks within boxes correspond to a specific part of the compound structure.

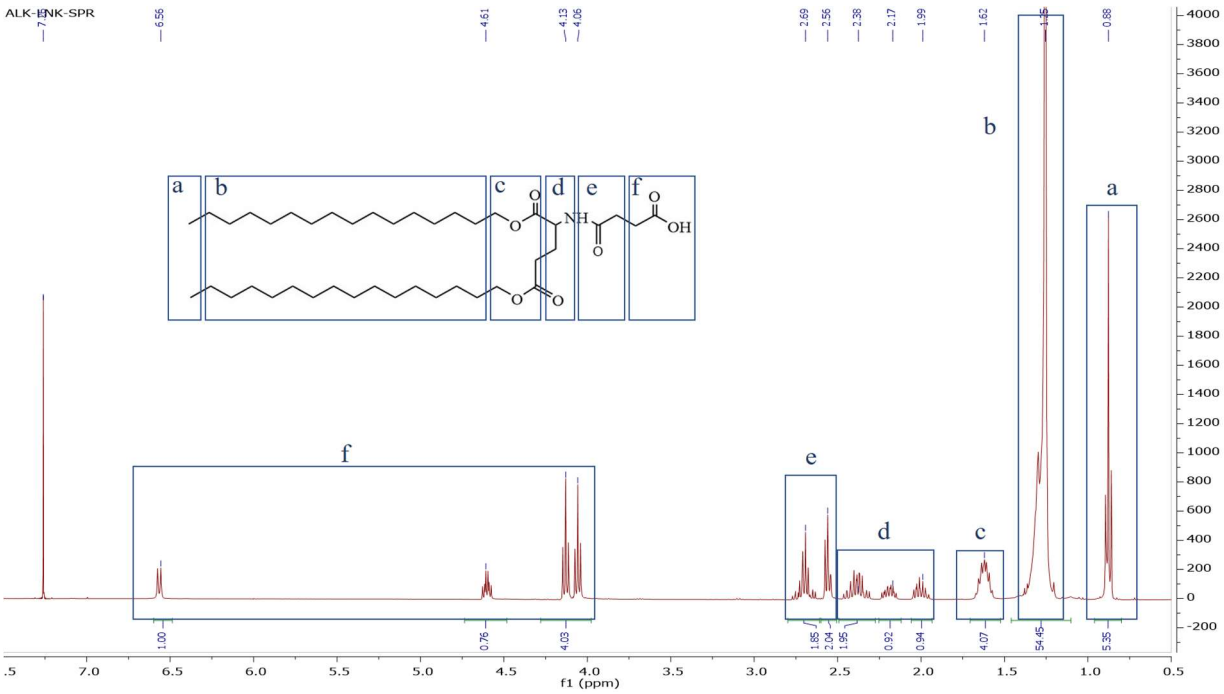

Figure S3. ^{1}H-NMR analysis of diC_{16} tail (1',3'-dihexadecyl N-succinyl-L-glutamate) in $CDCl_3$. The peaks within boxes correspond to a specific part of the compound structure.

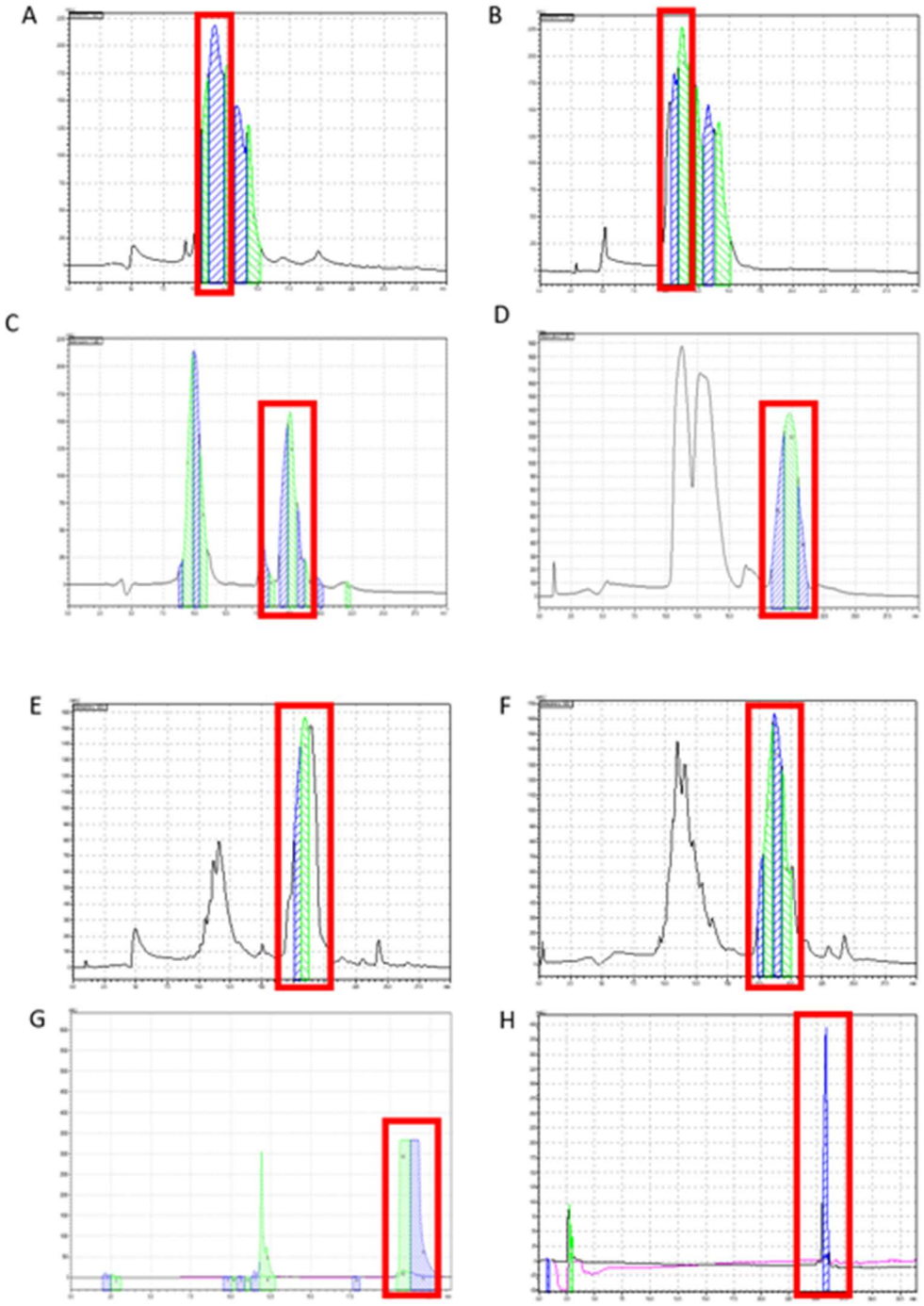

Figure S4. HPLC chromatogram of A) MCP-1 peptide, B) Scrambled peptide, C) DSPE-PEG_{2000}-MCP-1, D) DSPE-PEG_{2000}-Scrambled, E) diC16 MCP-1, F) diC16 Scrambled, G) DSPE-PEG_{2000}-Cy7, and H) diC16-Cy7. The highlighted area (red box) were analyzed via MALDI (Figure S5-S12).

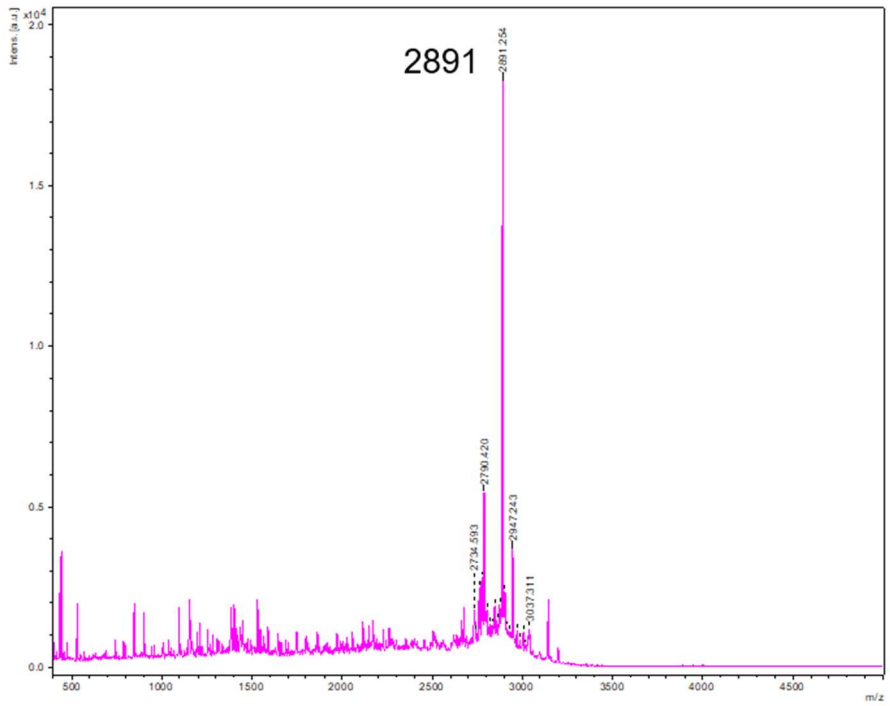

Figure S5. MALDI-TOF mass spectra of the MCP-1 peptide at a range of 400 – 5000 Da. Highest peak corresponds to $[M + H]^+$ = 2891 (expected 2892).

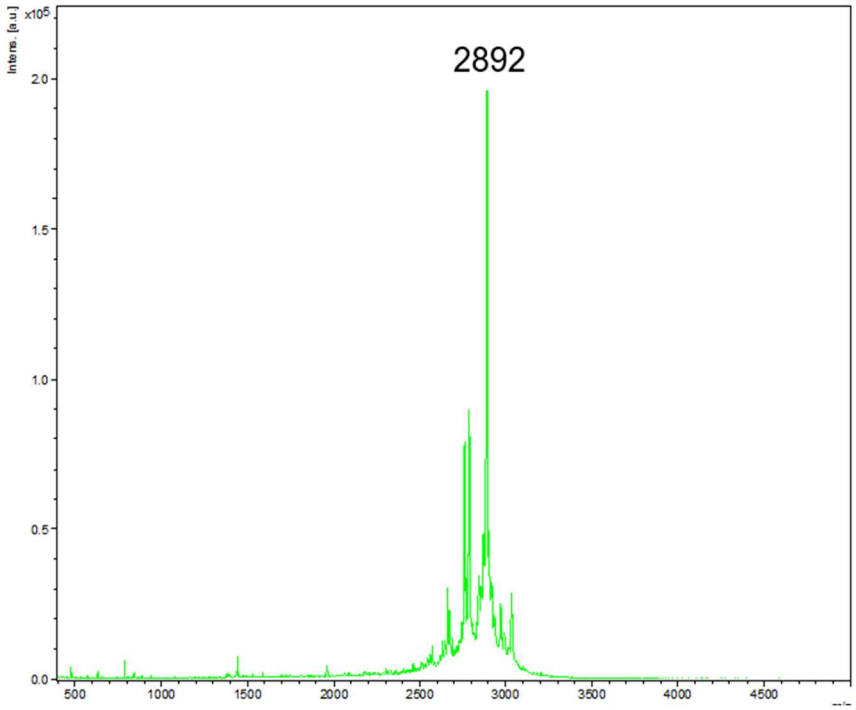

Figure S6. MALDI-TOF mass spectra of the scrambled MCP-1 peptide at a range of 450 – 5000 Da. Highest peak corresponds to $[M + H]^+$ = 2892 (expected 2892).

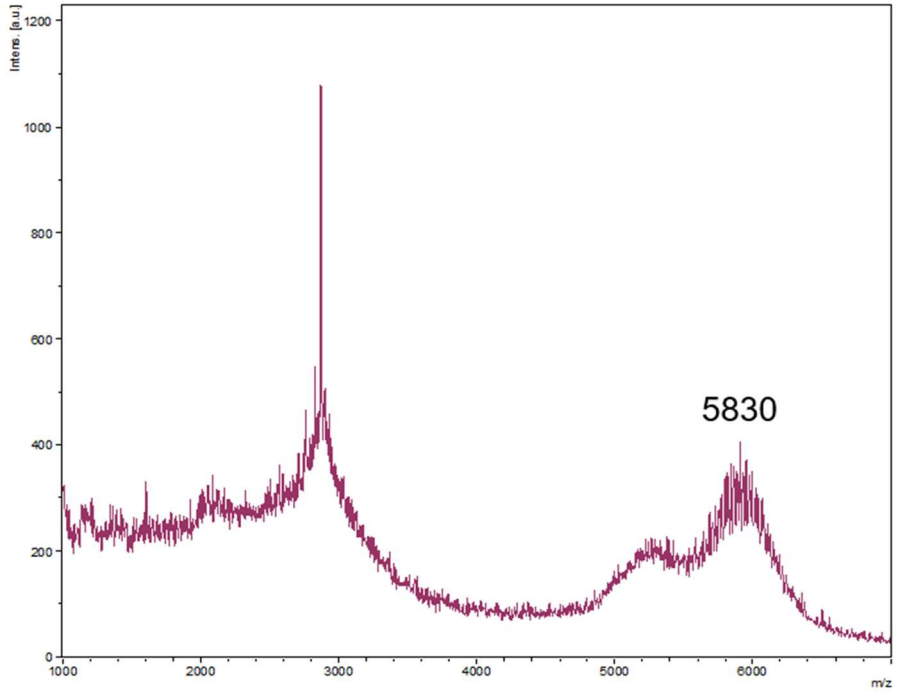

Figure S7. MALDI-TOF mass spectra of DSPE-PEG_{2000} MCP-1 at a range of 1000 – 7000 Da. Rightmost peak corresponds to $[M + H]^+$ = 5830 (expected 5830).

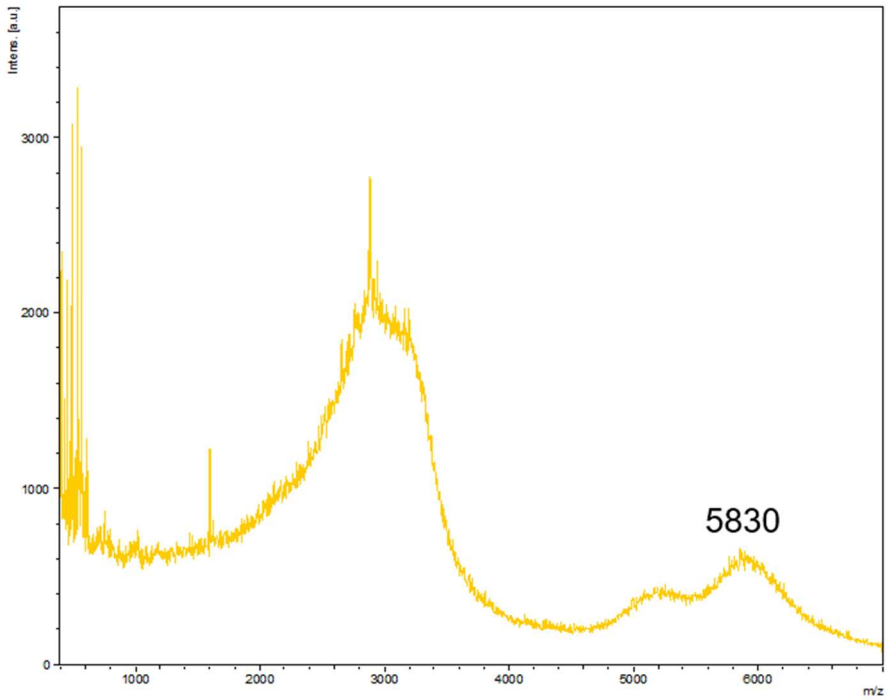

Figure S8. MALDI-TOF mass spectra of DSPE-PEG_{2000} scrambled MCP-1 at a range of 400 – 7000 Da. Rightmost peak corresponds to $[M + H]^+$ = 5830 (expected 5830).

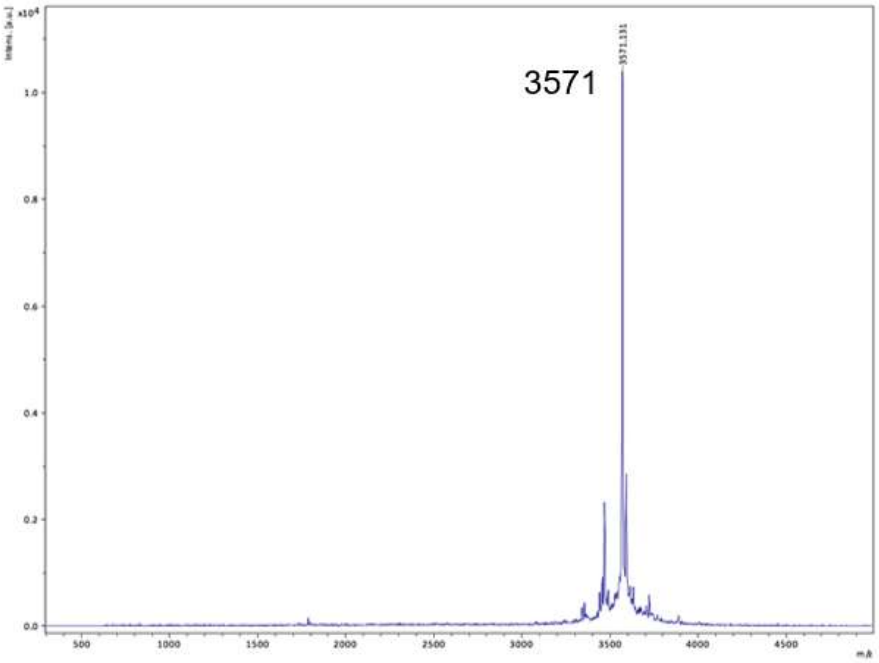

Figure S9. MALDI-TOF mass spectra of diC_{16} MCP-1 at a range of 300 – 5000 Da. Highest peak corresponds to $[M + H]^+$ = 3571 (expected 3571).

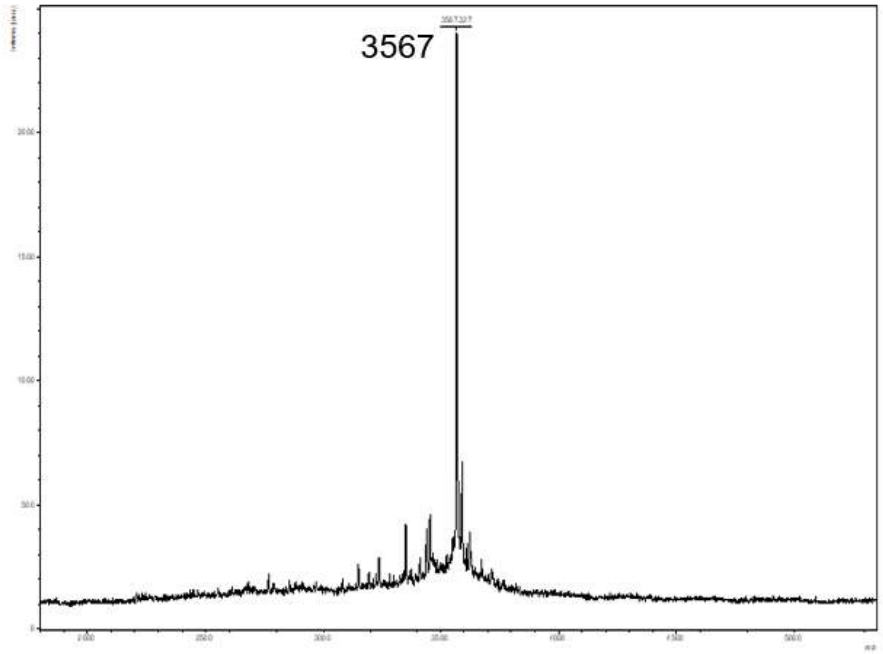

Figure S10. MALDI-TOF mass spectra of diC_{16} scrambled MCP-1 at a range of 1800 – 5400 Da. Highest peak corresponds to $[M + H]^+$ = 3567 (expected 3571).

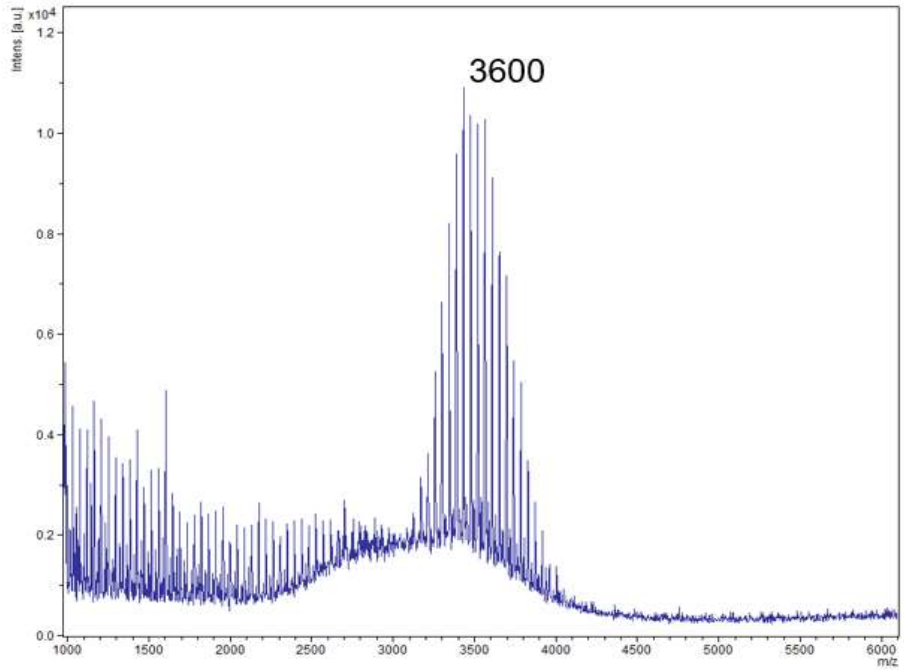

Figure S111. MALDI-TOF mass spectra of DSPE-PEG_{2000} Cy7 at a range of 1000 – 6100 Da. Center peak corresponds to $[M + H]^+$ = 3600 (expected 3680).

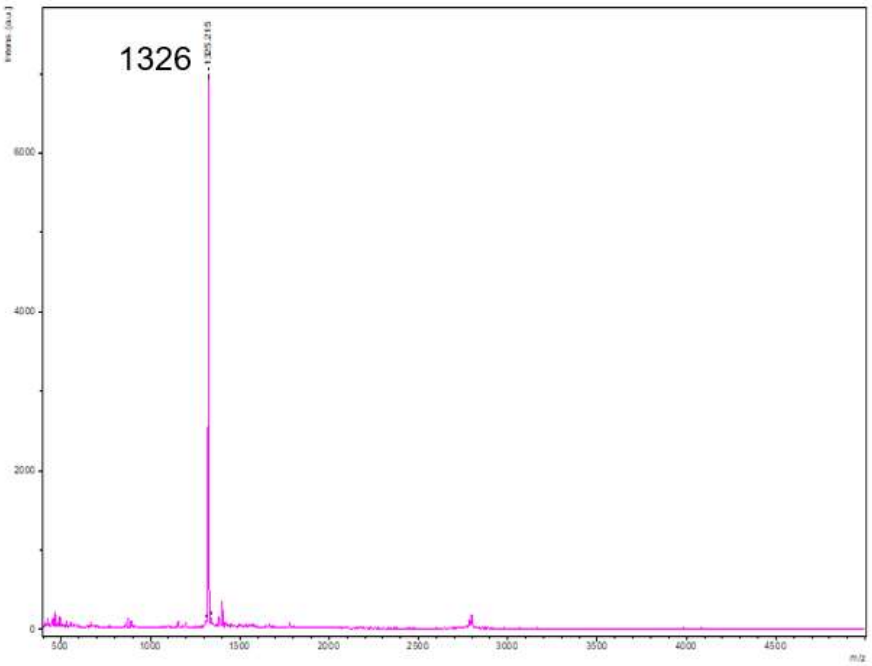

Figure S12. MALDI-TOF mass spectra of diC_{16} Cy7 at a range of 400 – 5000 Da. Highest peak corresponds to $[M + H]^+$ = 1326 (expected 1326).

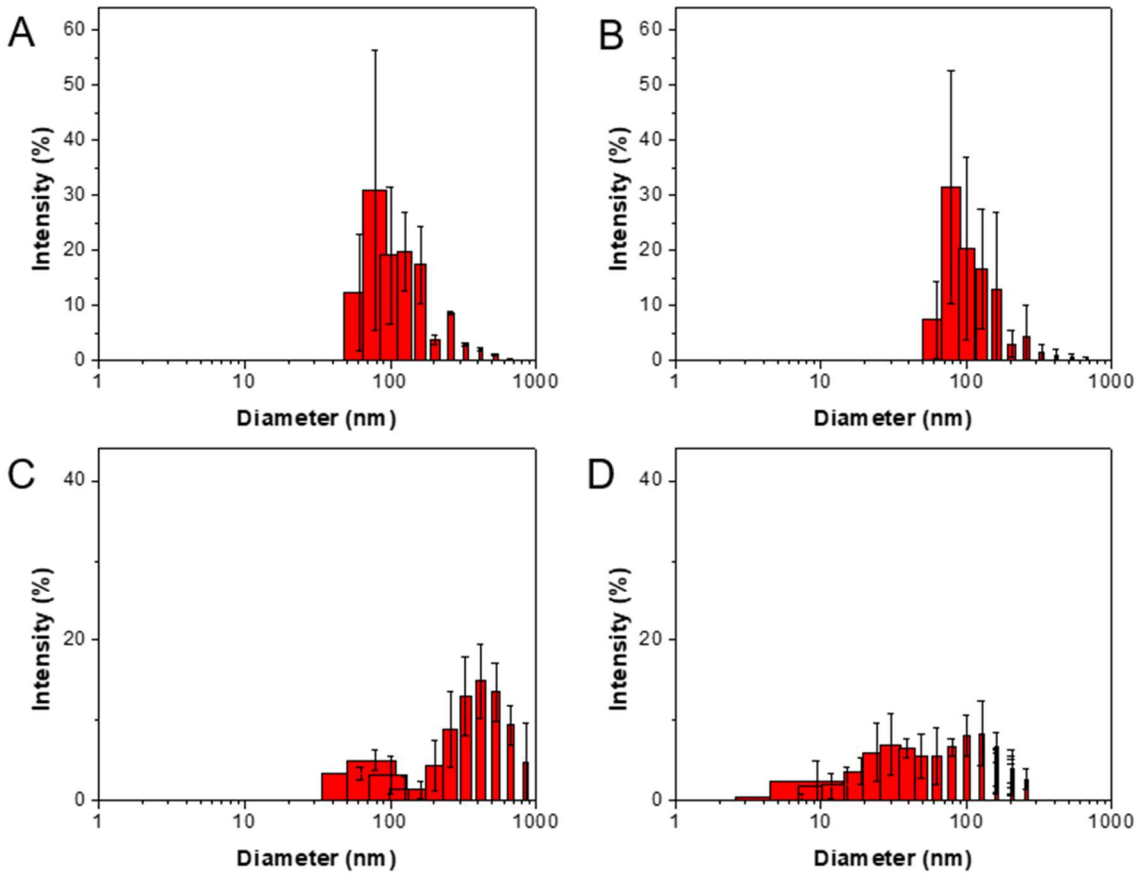

Figure S13. Dynamic light scattering (DLS) size intensity averages of A) S-MCP-1 PAMs, B) S-Scrambled PAMs, C) C-MCP-1 PAMs, and D) C-Scrambled PAMs.

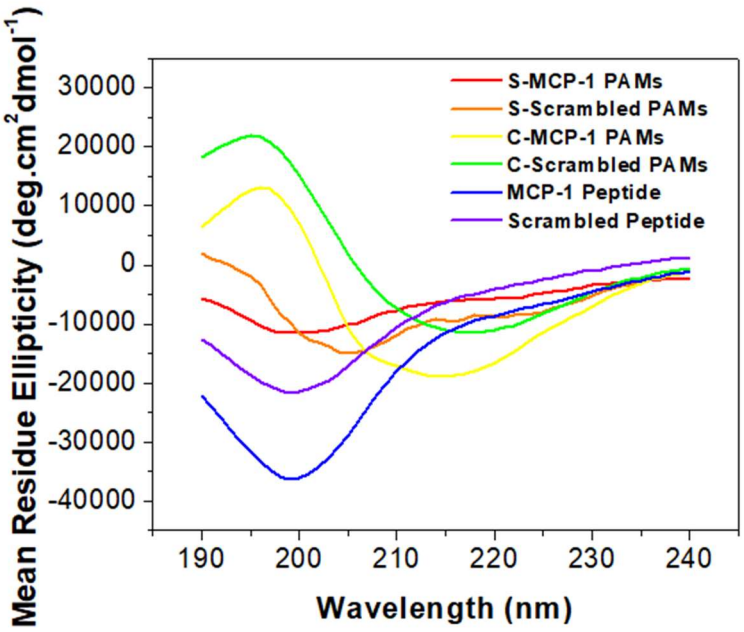

Figure S14. Circular dichroism spectroscopy of spherical MCP-1 PAMs (DSPE-PEG_{2000} MCP-1 PAMs), scrambled spherical PAMs, cylindrical MCP-1 PAMs (diC_{16} MCP-1 PAMs), scrambled cylindrical MCP-1 PAMs, MCP-1 peptides, and scrambled peptides.

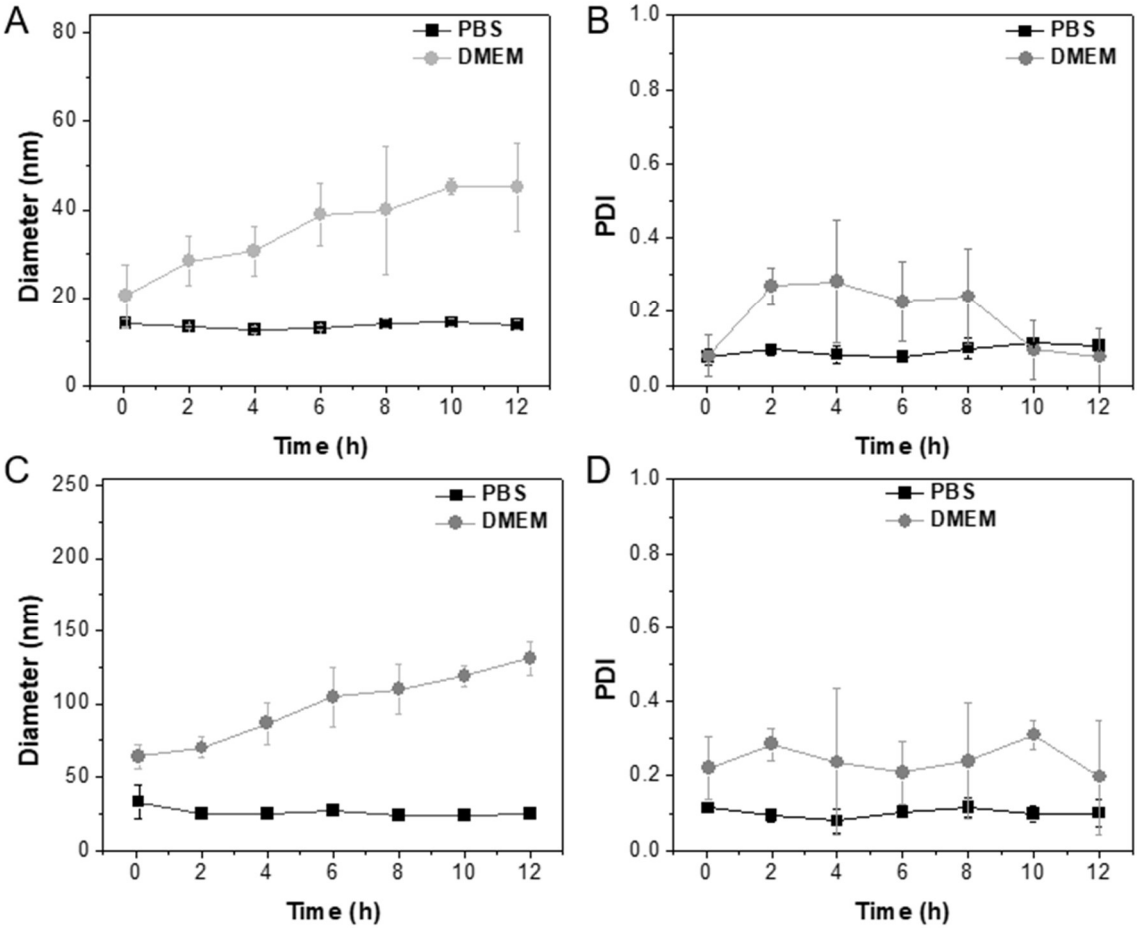

Figure S15. Particle stability of A) S-MCP-1 PAMs and C) C-MCP-1 PAMs measured by DLS, along with the polydispersity index (PDI) of B) S-MCP-1 PAMs and D) C-MCP-1 PAMs.