

Supporting Information for

Efficient photodynamic inactivation of *Candida albicans* by a porphyrin and potassium iodide co-encapsulated in micelles

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Photophysical properties of P1

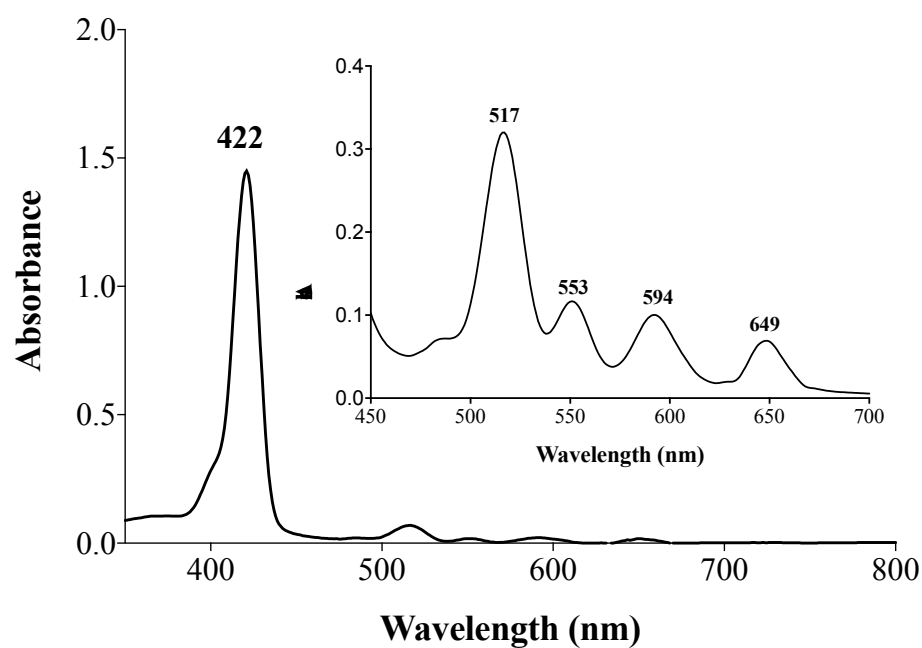


Figure S1. UV-Vis spectra of **P1** in DMF solution.

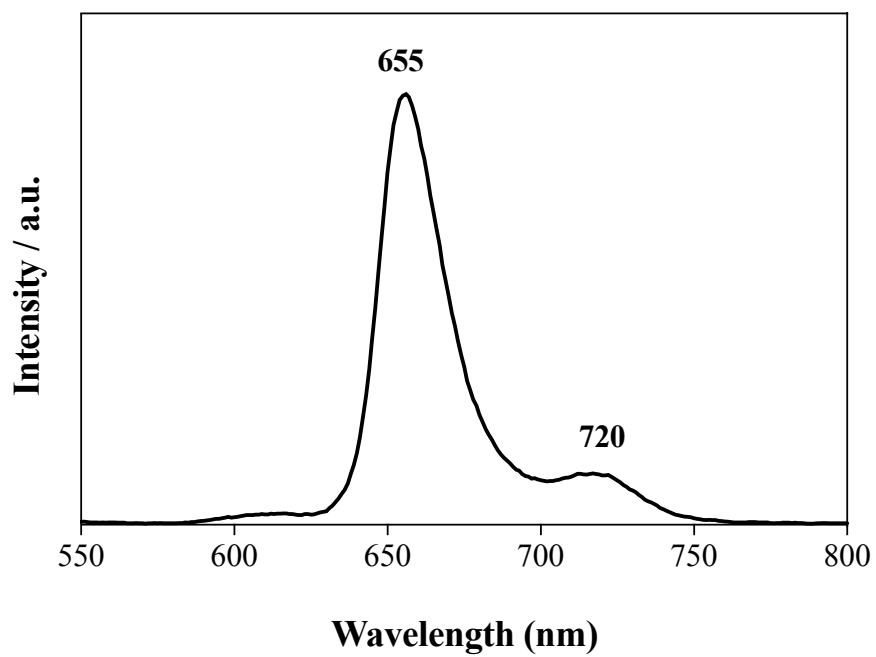


Figure S2. Emission spectra of **P1** in DMF solution ($\lambda_{\text{excitation}} = 420$ nm).

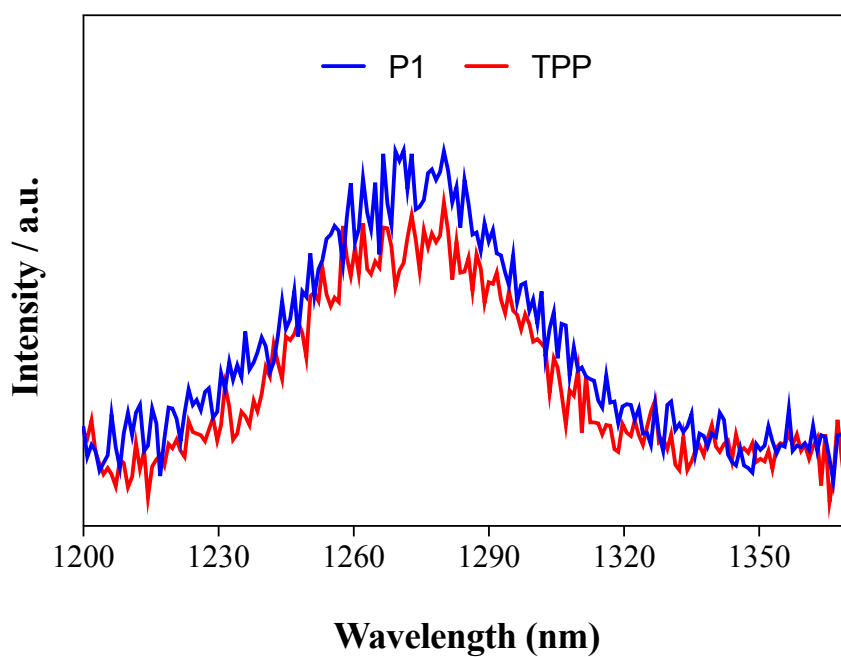


Figure S3. Phosphorescence spectra of the singlet oxygen generated by **P1** and **TPP** in DMF, $\lambda_{\text{exc}} = 420$ nm.

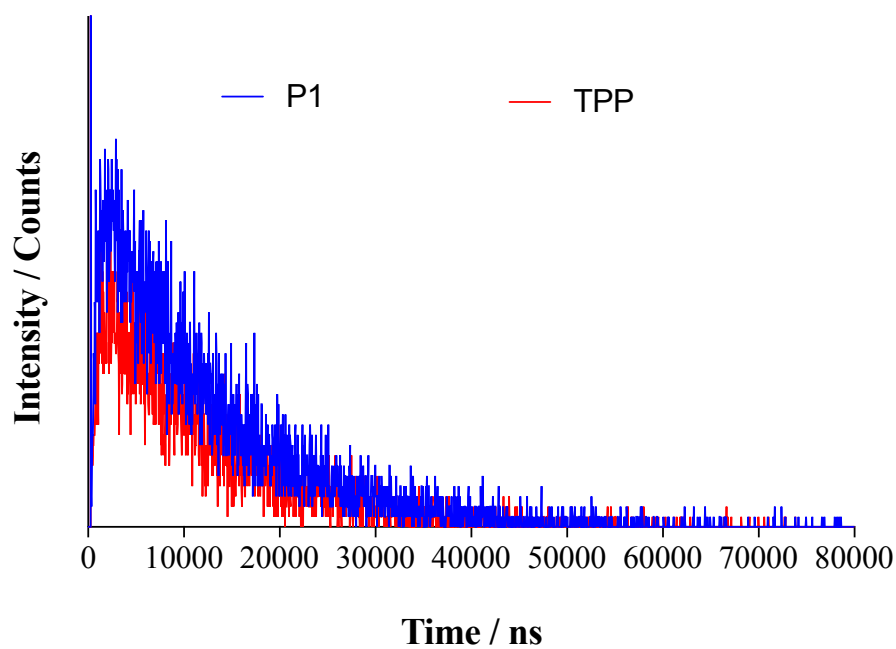


Figure S4. Time-resolved direct detection of $^1\text{O}_2$ generated by **P1** and **TPP** in DMF, $\lambda_{\text{exc}} = 420$ nm.

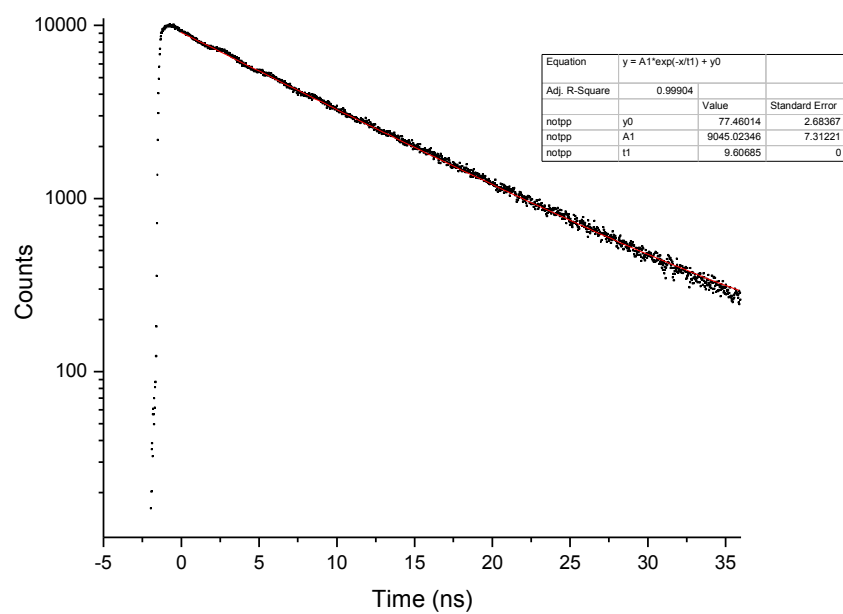


Figure S5. Fluorescence lifetime decays of **P1** at $\lambda_{\text{exc}} = 420$ nm and $\lambda_{\text{em}} = 655$ nm. The scattered points represent the decay profile while the red line represents a bi-exponential fit to that decay.

Aggregation studies

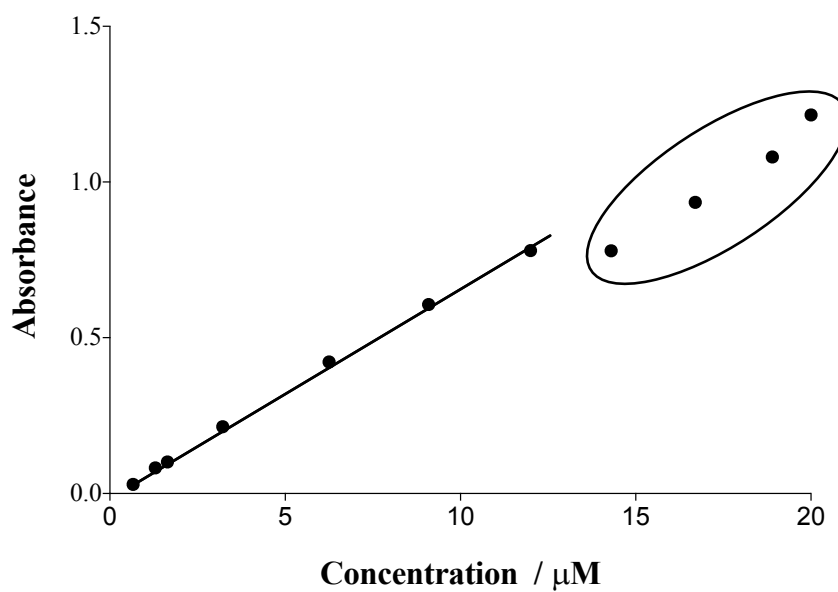


Figure S6. Spectrophotometric study of **P1** at different concentrations in PBS with 1% DMSO.

UV-Vis

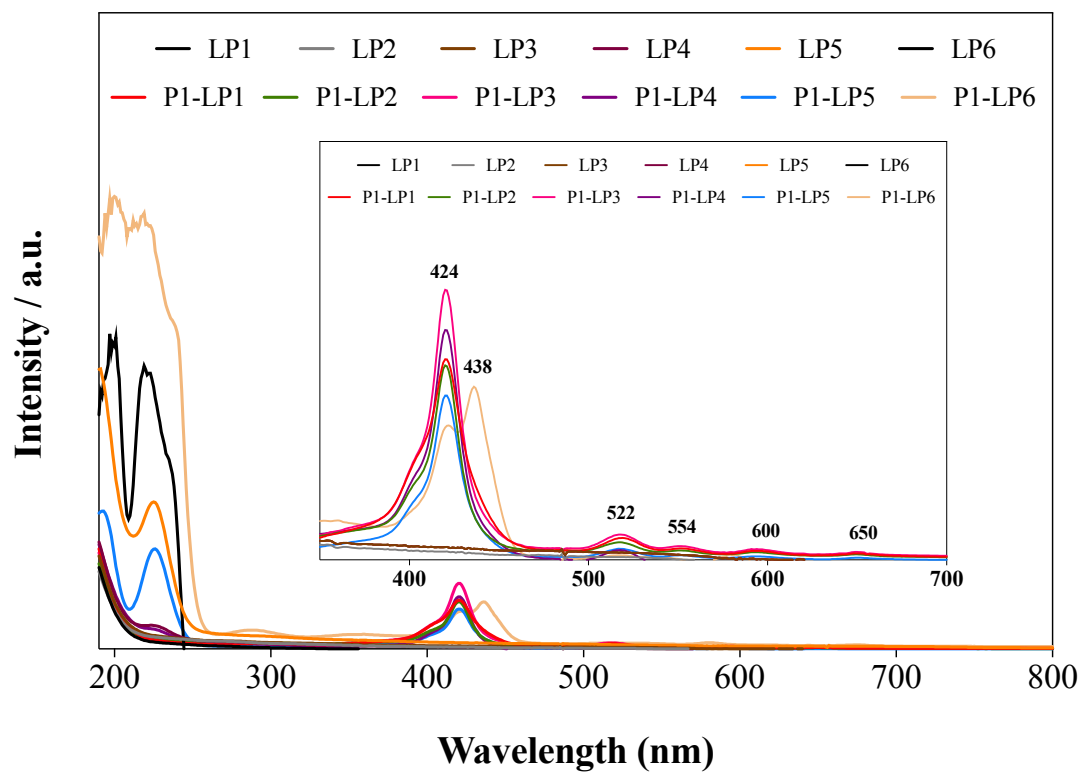


Figure S7. UV-Vis spectra of **P1**- micelles in water.

Fluorescence

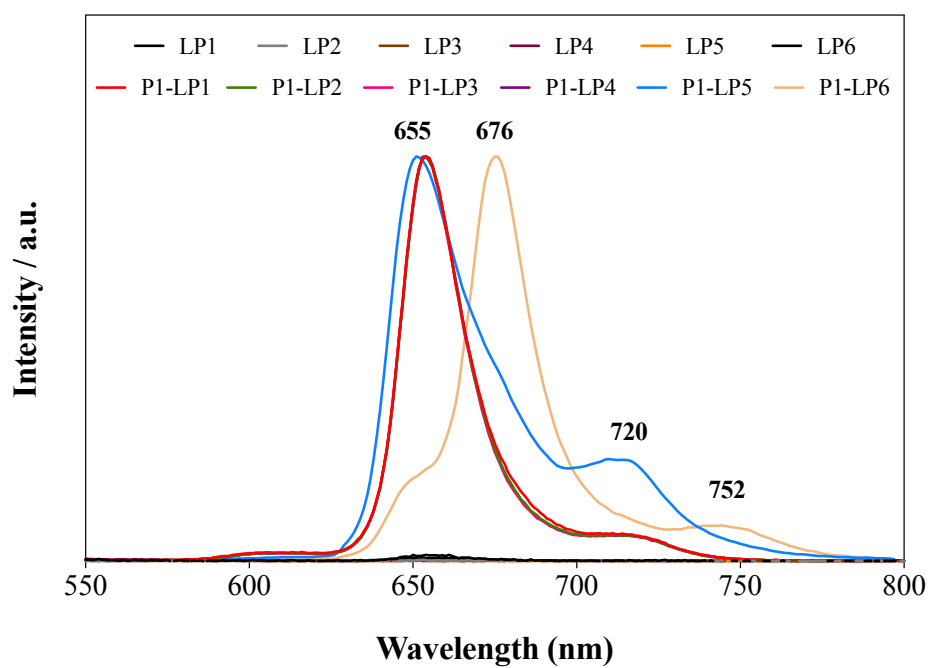


Figure 8. Normalized emission spectra of **P1**-micelles in water. ($\lambda_{\text{exc}} = 420$ nm).

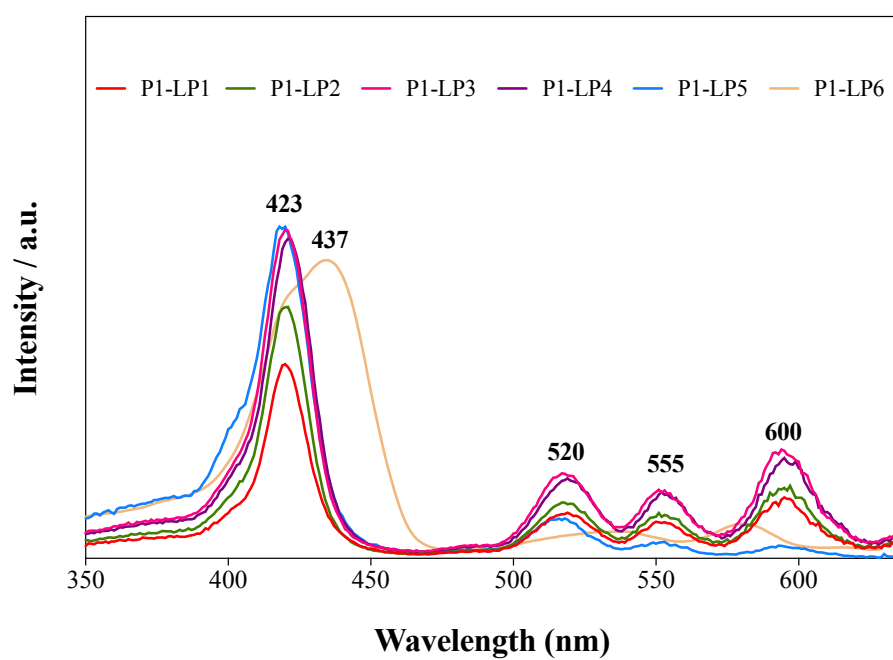


Figure S9. Excitation spectra of **P1**-micelles in water ($\lambda_{\text{emission}} = 655$ nm).

Dynamic Light Scattering (DLS)

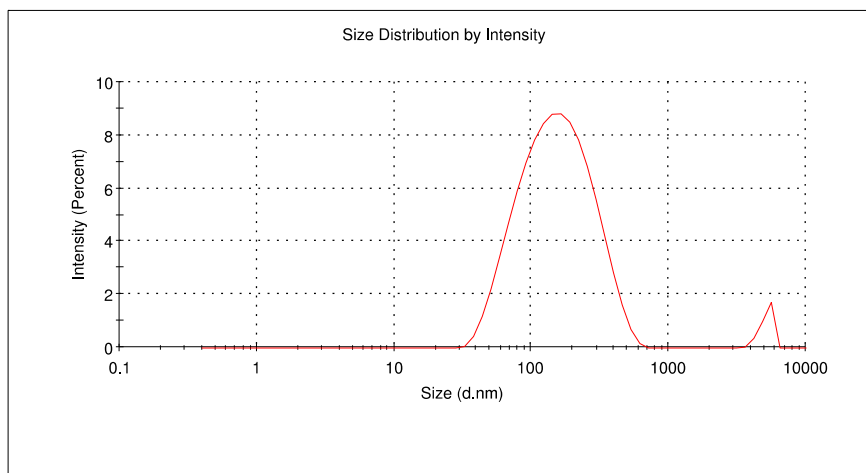


Figure S10. DLS measurement results for **P1-LP1** dispersed in water.

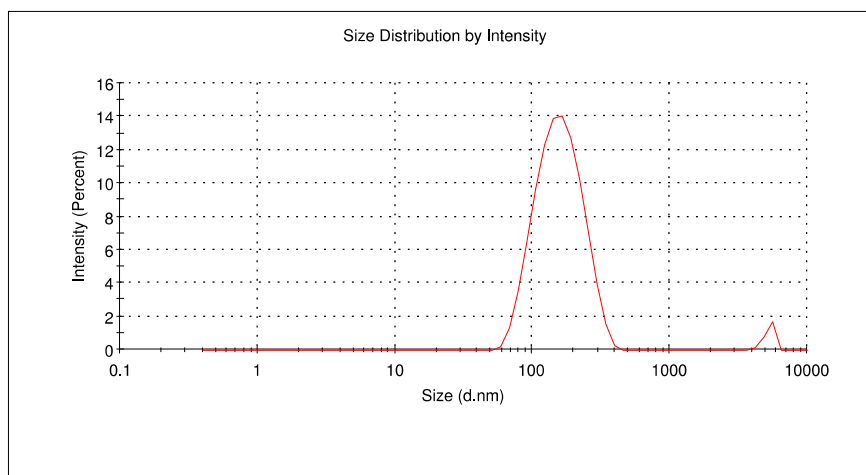


Figure S11. DLS measurement results for **P1-LP2** dispersed in water.

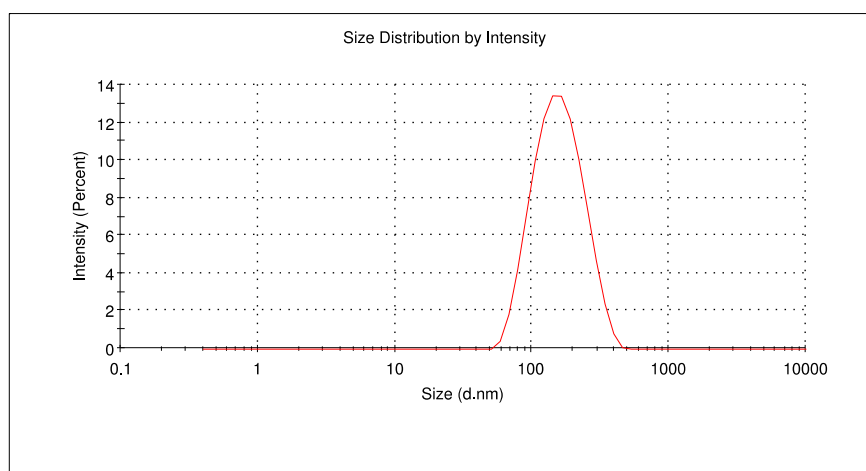


Figure S12. DLS measurement results for **P1-LP3** dispersed in water.

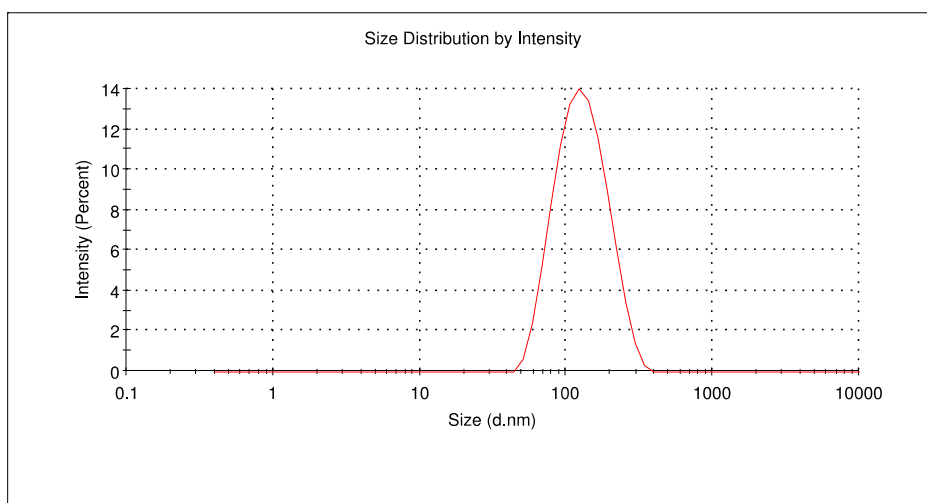


Figure S13. DLS measurement results for **P1-LP4** dispersed in water.

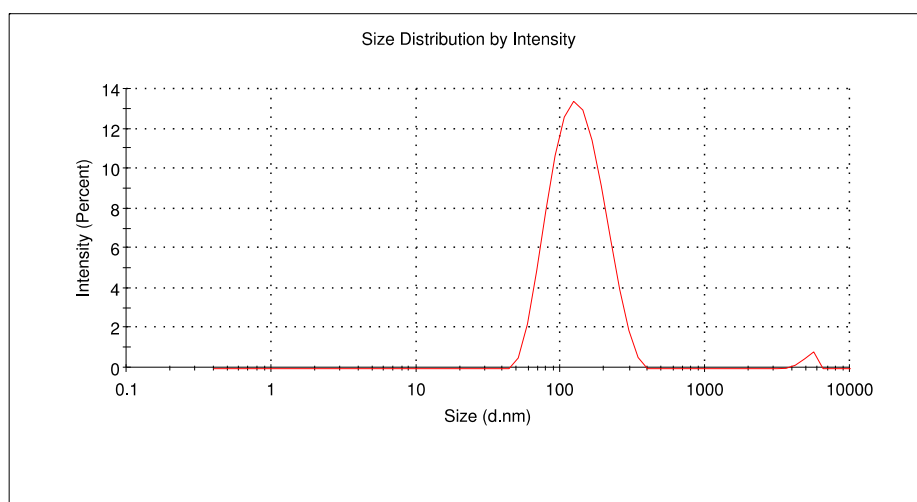


Figure S14. DLS measurement results for **P1-LP5** dispersed in water.

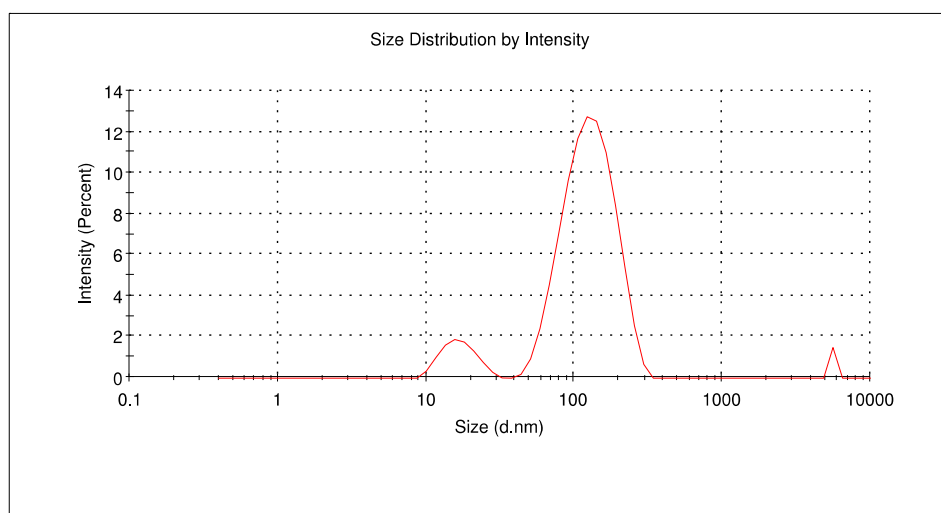


Figure S15. DLS measurement results for **P1-LP6** dispersed in water.

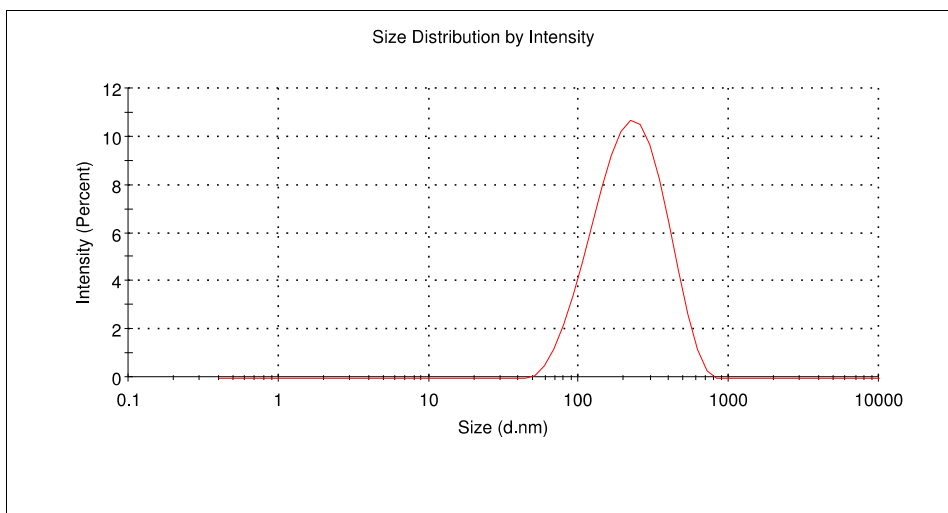


Figure S16. DLS measurement results for LP1 dispersed in water.

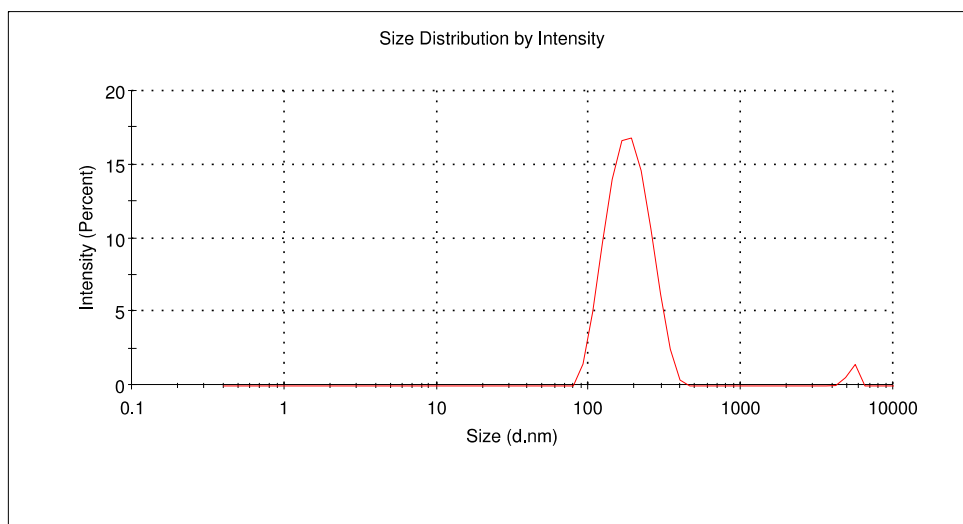


Figure S17. DLS measurement results for LP2 dispersed in water.

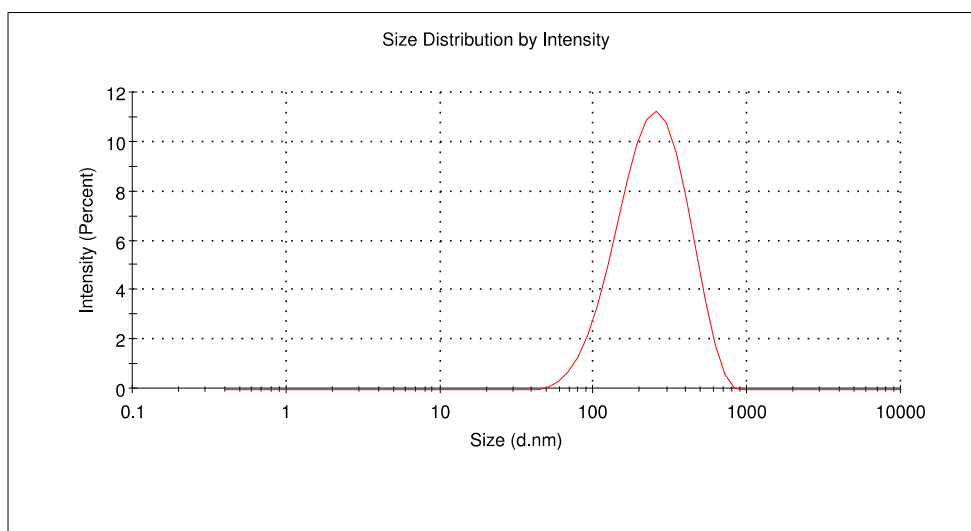


Figure S18. DLS measurement results for LP3 dispersed in water.

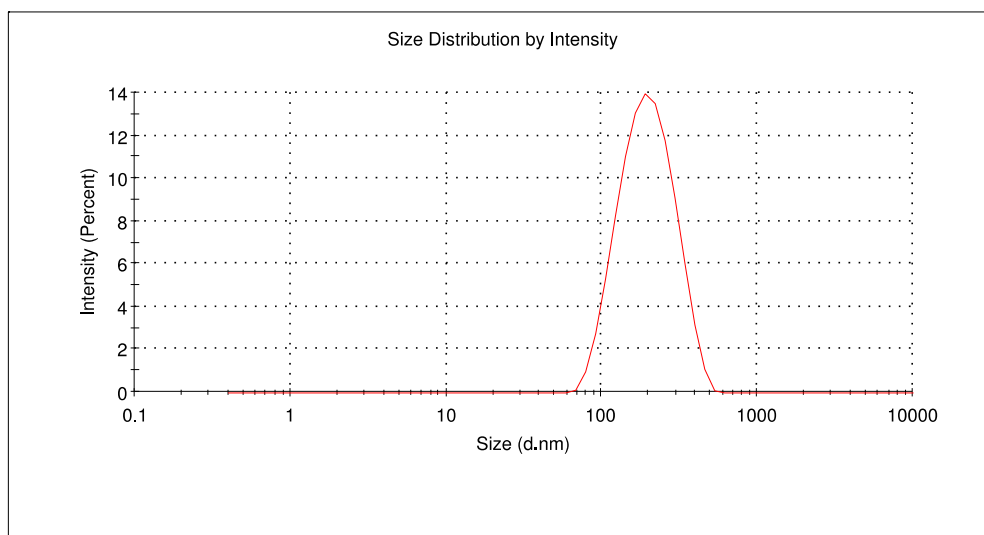


Figure S19. DLS measurement results for LP4 dispersed in water.

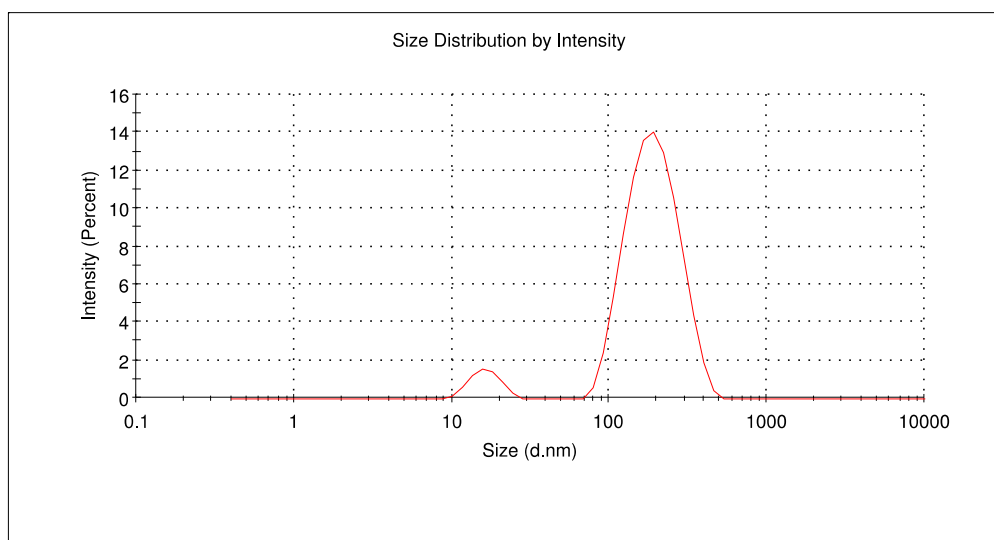


Figure S20. DLS measurement results for LP5 dispersed in water.

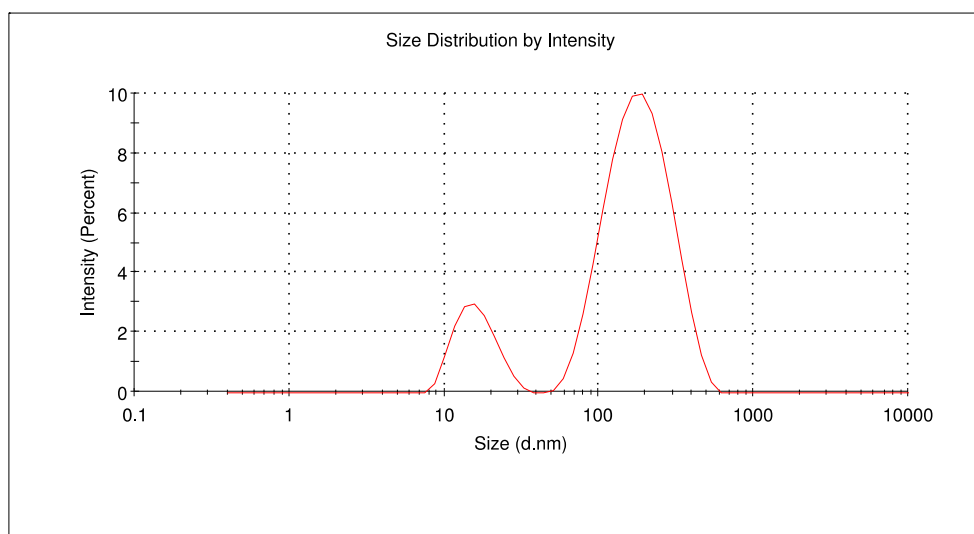


Figure S21. DLS measurement results for LP6 dispersed in water.

Zeta potential

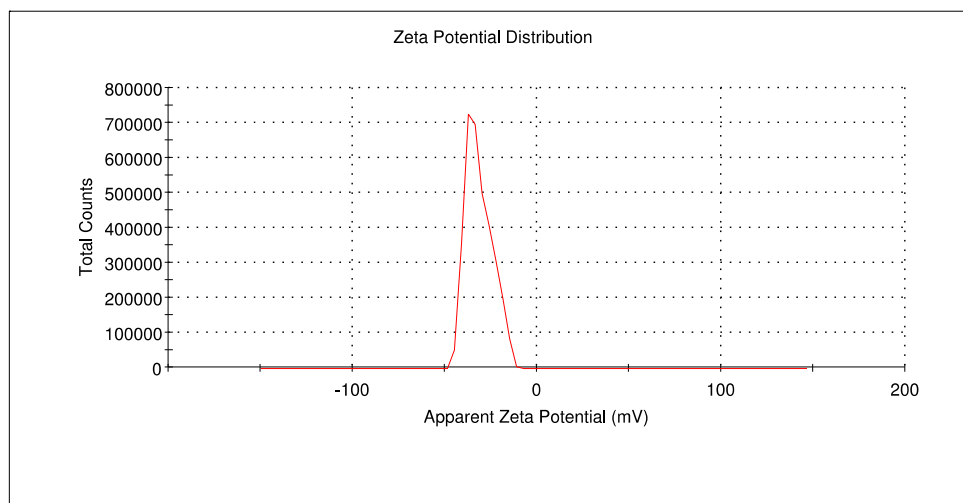


Figure S22. Surface charge analysis of **P1-LP1** by zeta potential measurement.

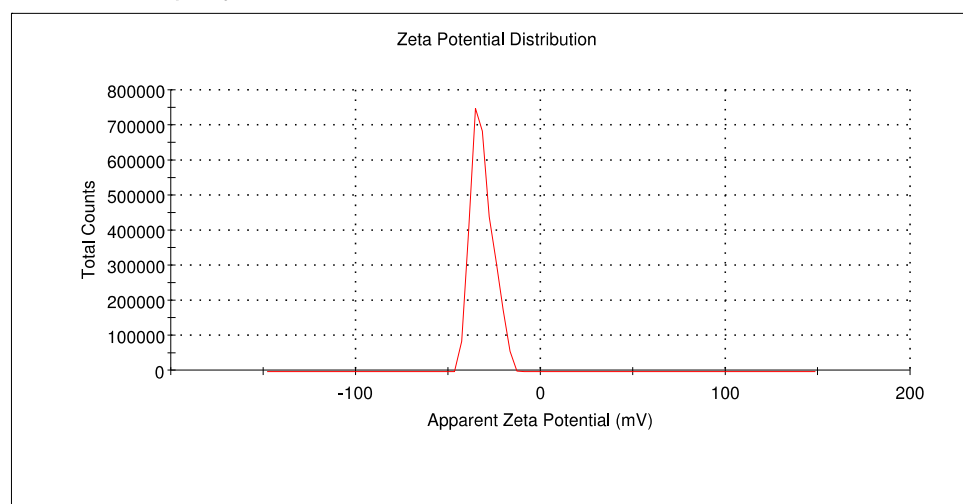


Figure S23. Surface charge analysis of **P1-LP2** by zeta potential measurement.

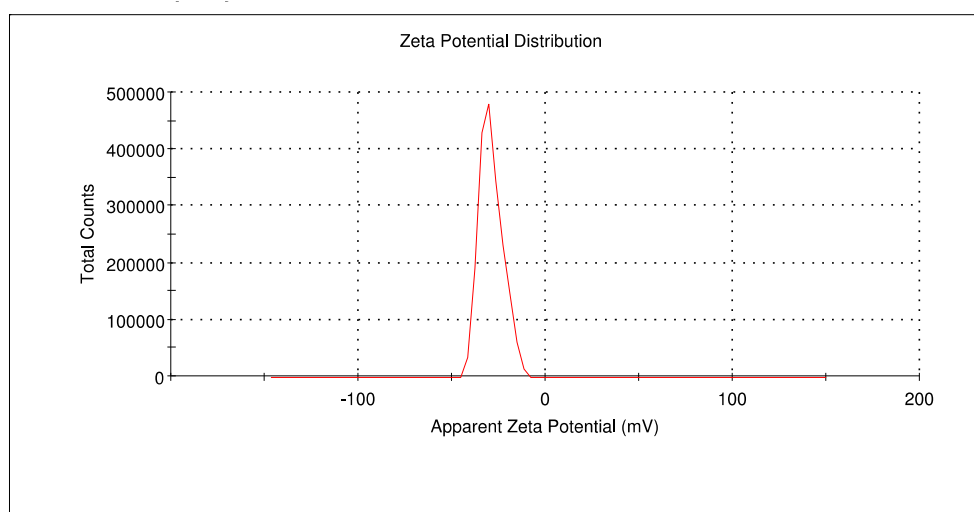


Figure S24. Surface charge analysis of **P1-LP3** by zeta potential measurement.

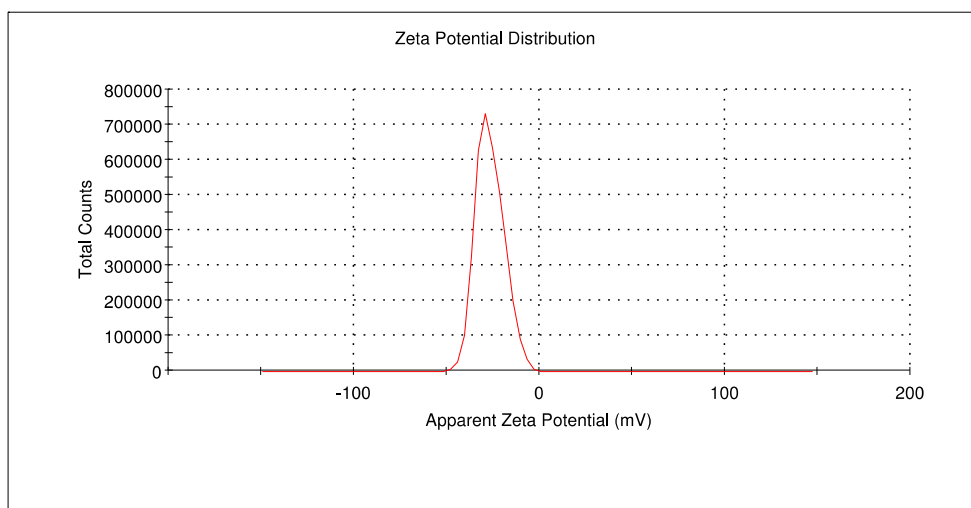


Figure S25. Surface charge analysis of **P1-LP4** by zeta potential measurement.

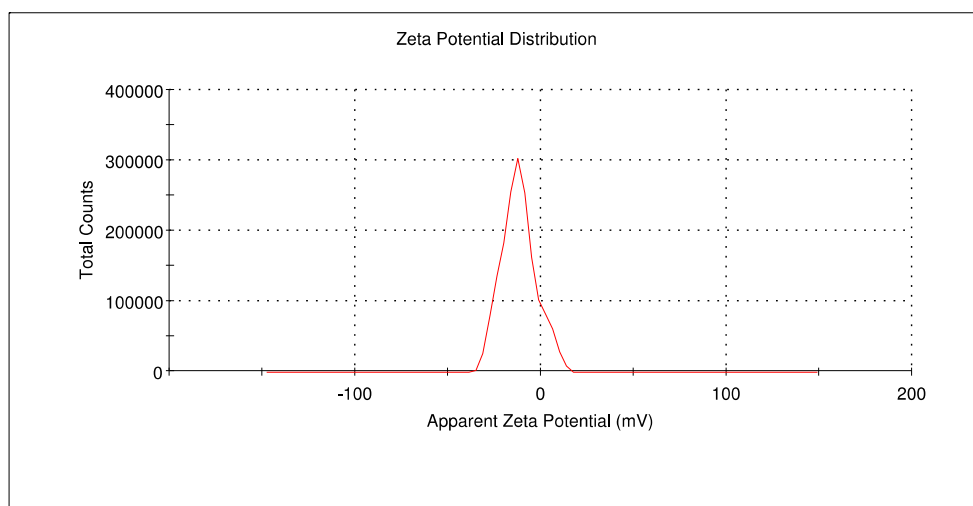


Figure S26. Surface charge analysis of **P1-LP5** by zeta potential measurement.

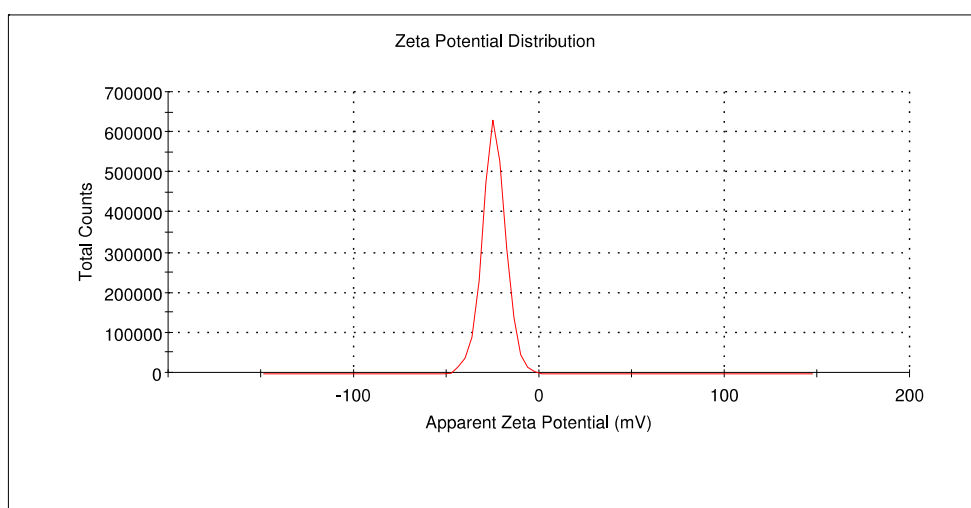


Figure S27. Surface charge analysis of **P1-LP6** by zeta potential measurement.

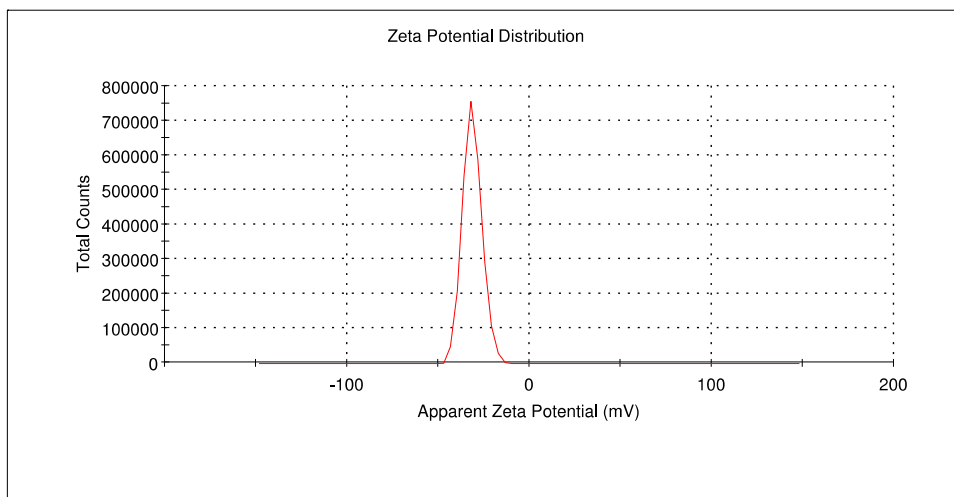


Figure S28. Surface charge analysis of LP1 by zeta potential measurement.

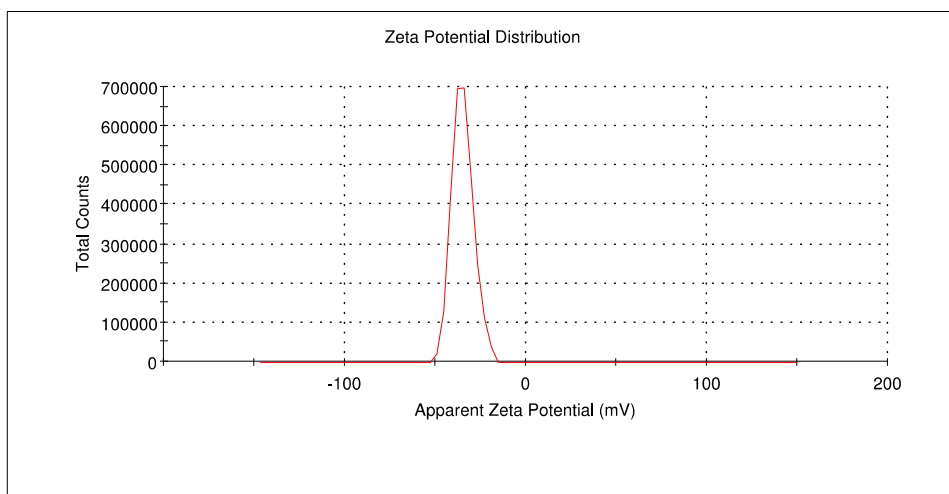


Figure S29. Surface charge analysis of LP2 by zeta potential measurement.

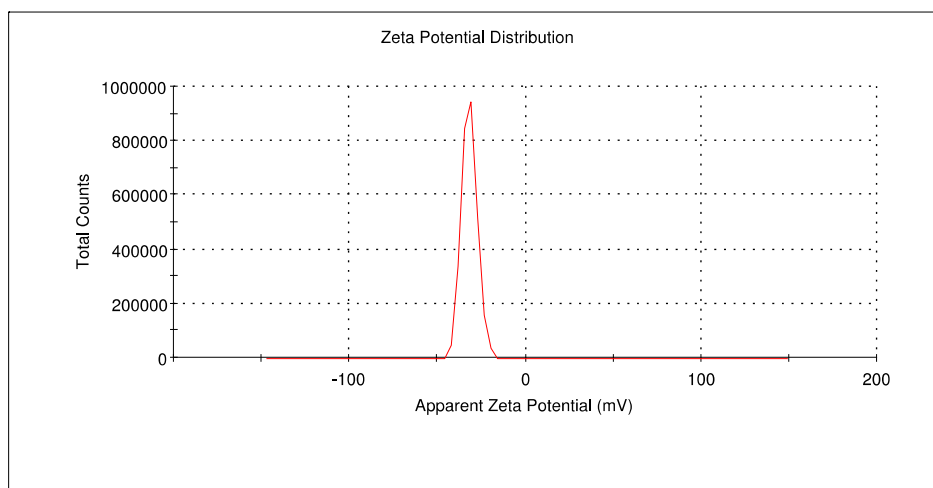


Figure S30. Surface charge analysis of LP3 by zeta potential measurement.

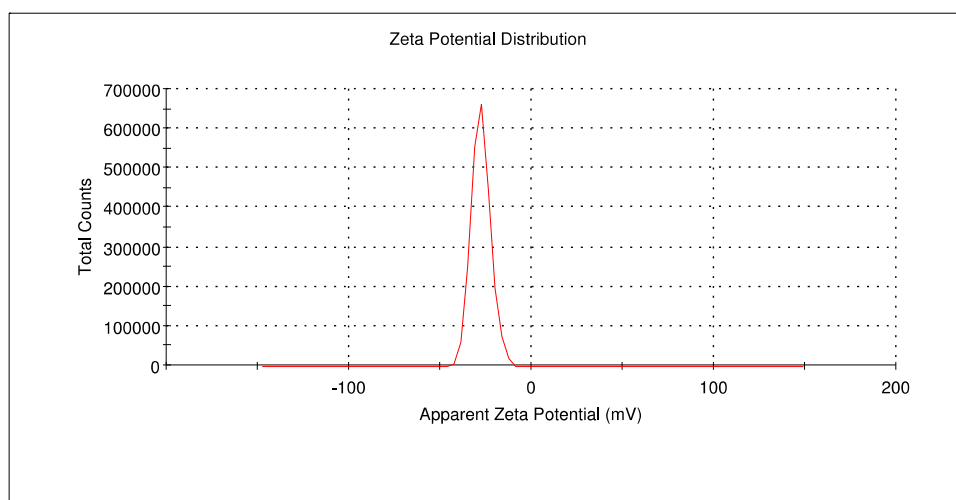


Figure S31. Surface charge analysis of LP4 by zeta potential measurement.

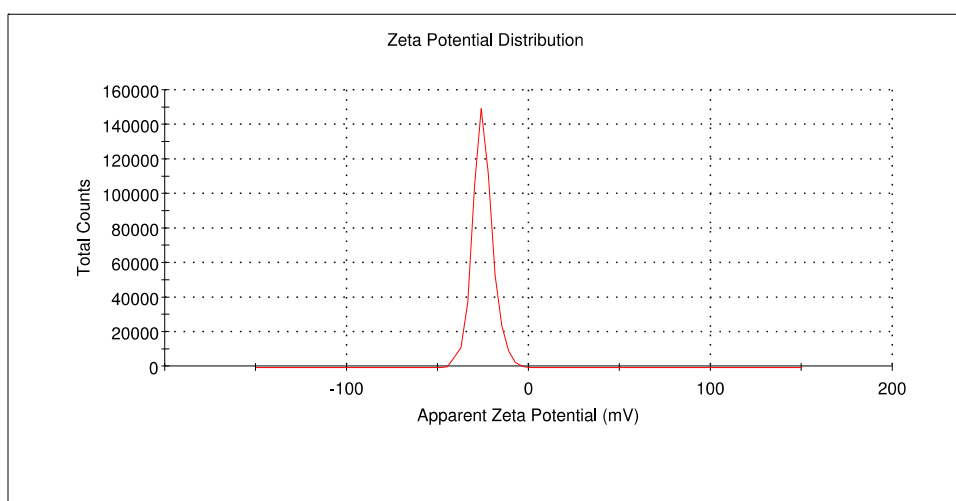


Figure S32. Surface charge analysis of LP5 by zeta potential measurement.

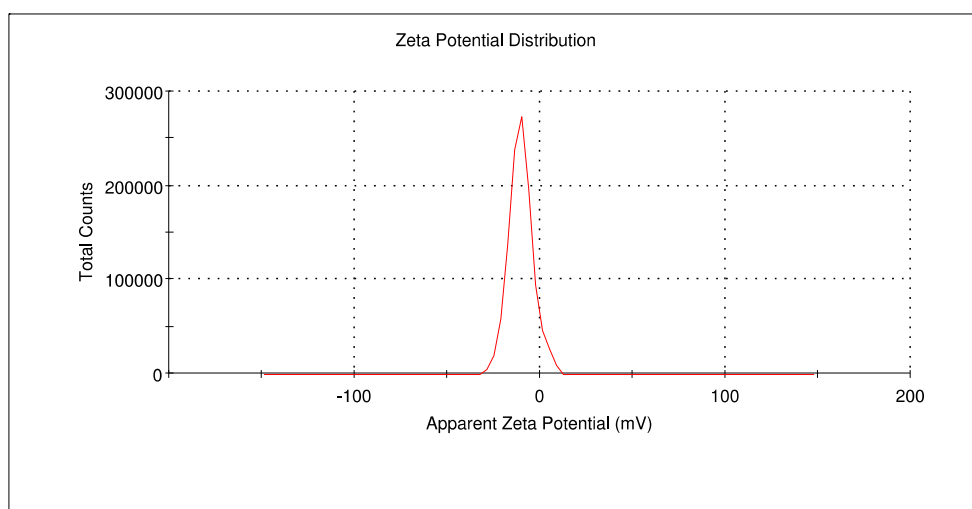


Figure S33. Surface charge analysis of LP6 by zeta potential measurement.

Uptake

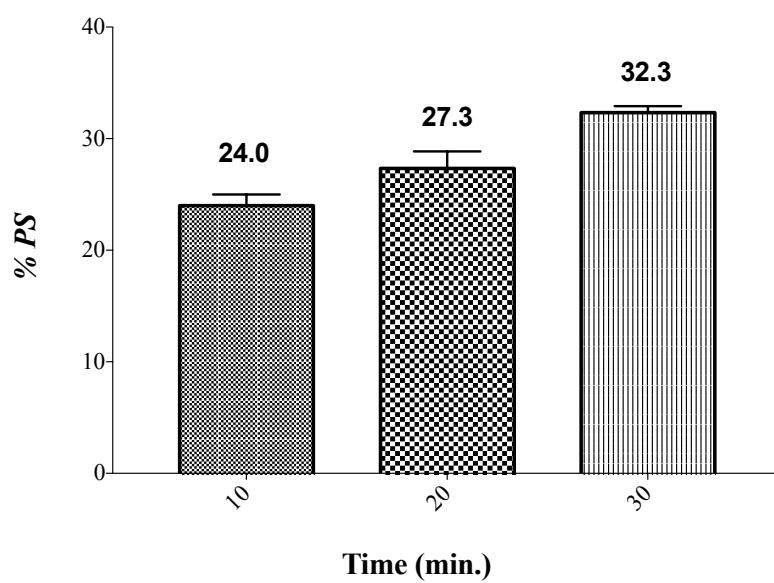


Figure S34. Time-dependent cellular uptake of **P1**-LP4. UV-Vis analysis of the three independent assays in *Candida albicans* cells after incubation with 10 μ M of **P1** (mean $\pm$ SD, n = 3).