

Support information

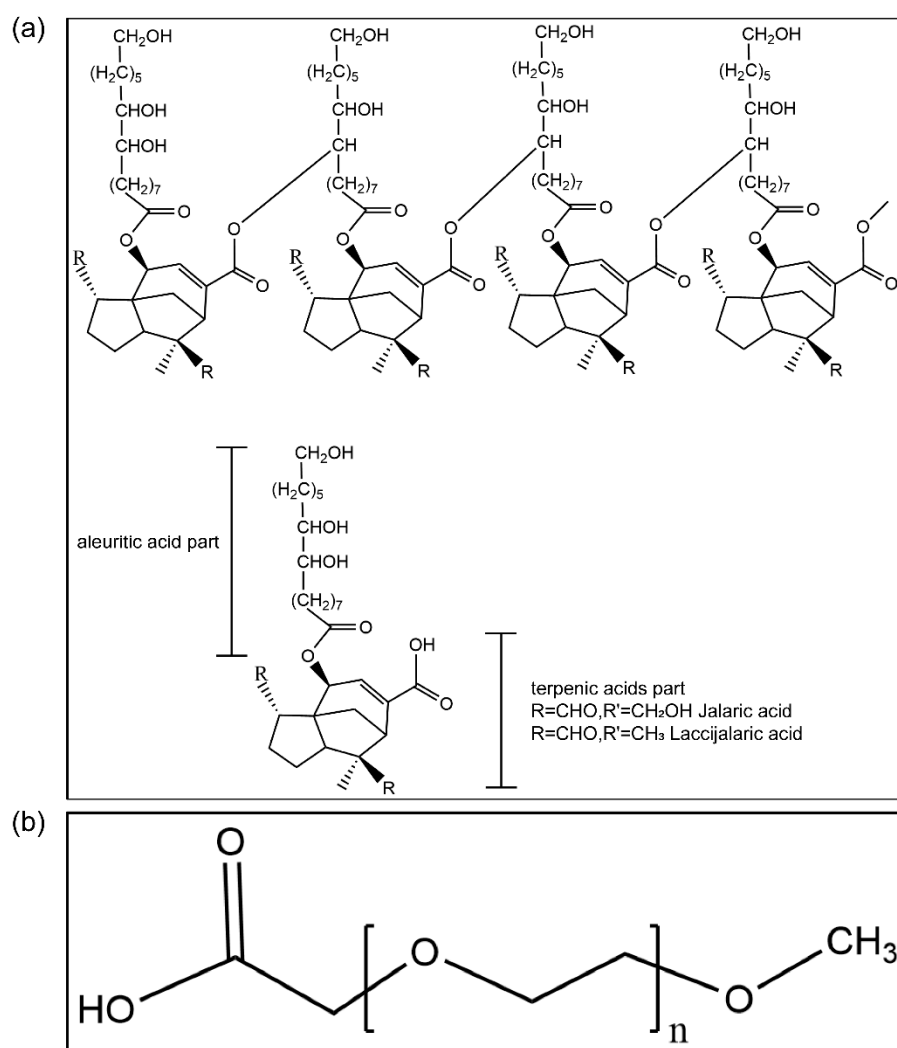


Figure S1. Chemical structures of (a) shellac and (b) PLA. Both PLA and shellac are FDA-approved materials.

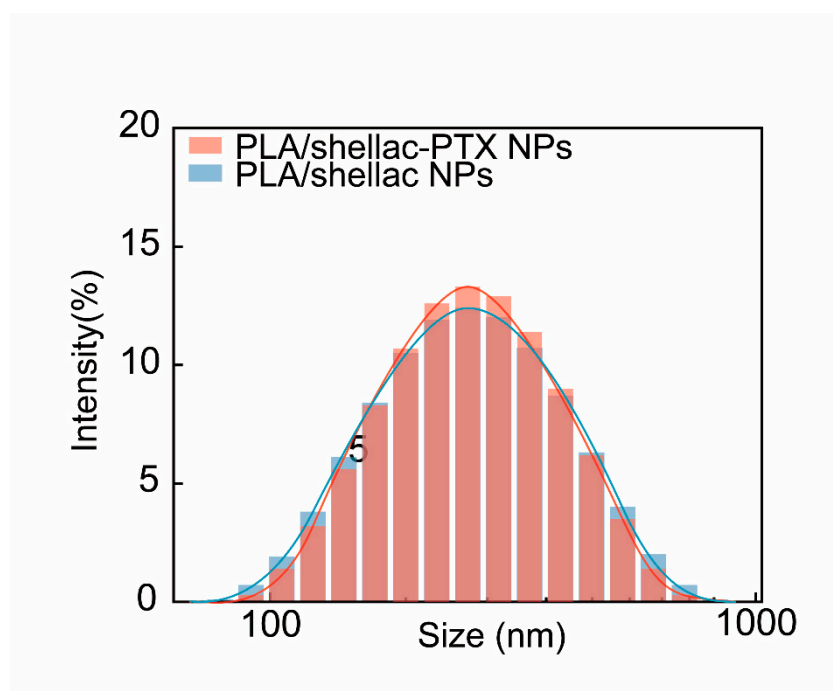


Figure S2. Particle size distribution of PLA/shellac NPs and PLA/shellac-PTX NPs measured by dynamic light scattering. No significant change in size measured by dynamic light scattering is observed after incubating PLA/shellac NPs in PBS with pH varied from 7.4 to 6.5 and 1 wt% Tween 80 for 5 days.

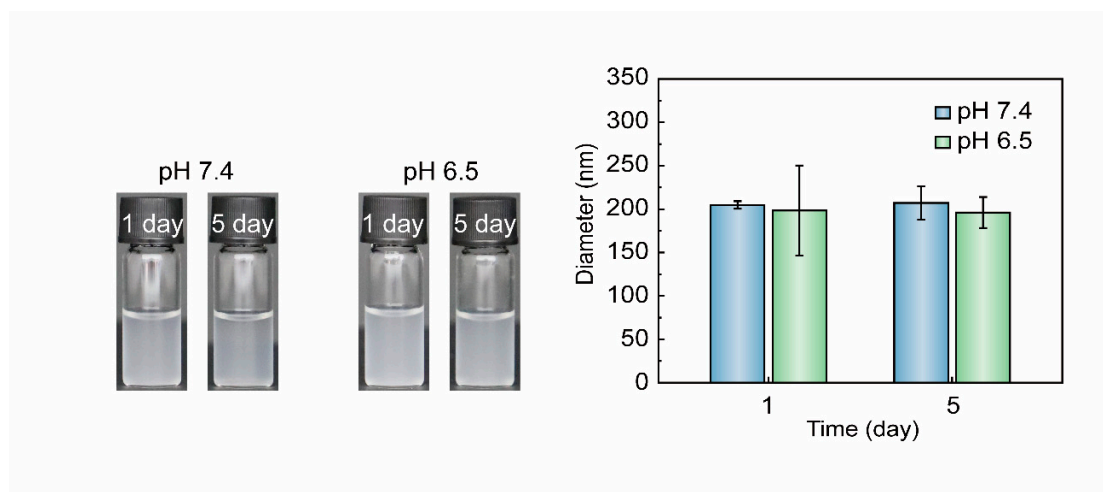


Figure S3. Stability of PLA/shellac dimer NPs in physiological and cancerous conditions. No significant change in size measured by dynamic light scattering is observed after incubating PLA/shellac NPs in PBS with pH varied from 7.4 to 6.5 for 5 days.

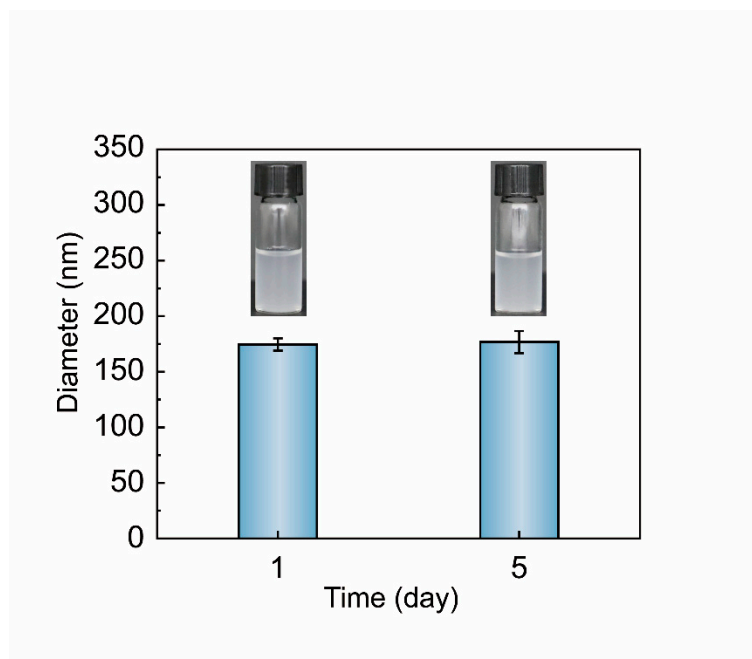


Figure S4. Stability of PLA/shellac dimer NPs in 1 wt% Tween 80. No significant change in size measured by dynamic light scattering is observed after incubating PLA/shellac NPs in 1 wt% Tween 80 for 5 days.