

Supplementary material for the article:

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Heat-induced nanoparticles from pumpkin leaf protein for potential application as β -carotene carriers

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Supplementary

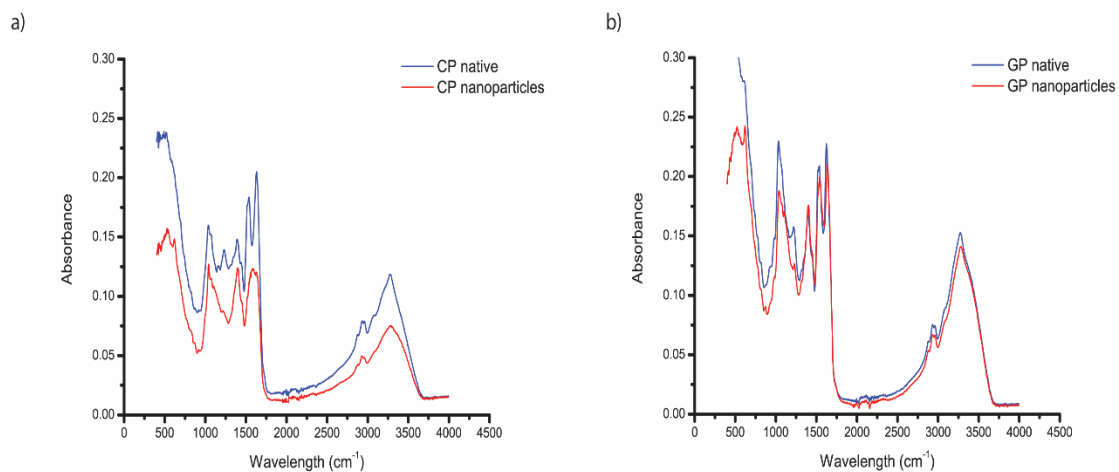


Figure S1. FTIR spectra (average from two repetitions) of native white protein fractions and corresponding nanoparticles a) CP and b) GP (— native protein, — heat-induced nanoparticles at 90 °C, 20 min and pH 9.3).

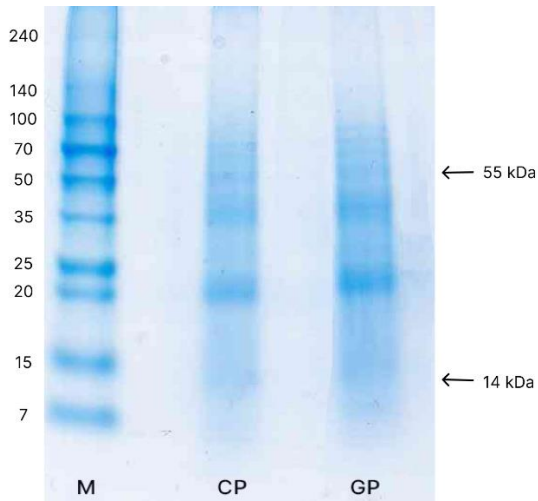


Figure S2. SDS PAGE of white protein fractions recovered by conventional (lane CP) and green (lane GP) protocols; lanes are loaded by 10 μ g protein each; protein molecular weight markers are in lane M and corresponding molecular weights (in kDa) are indicated at the left side; approximate positions and molecular weights of subunits of RuBisCO protein are indicated by arrows at the right side.

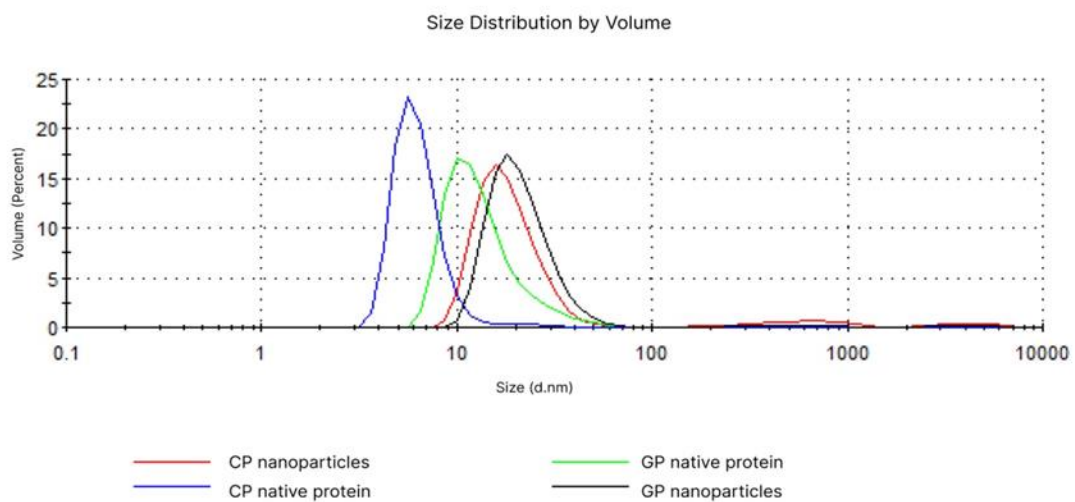


Figure S3. Volume based particle size distribution of white protein fractions recovered by conventional (CP) and green (GP) protocols and corresponding heat-induced nanoparticles.

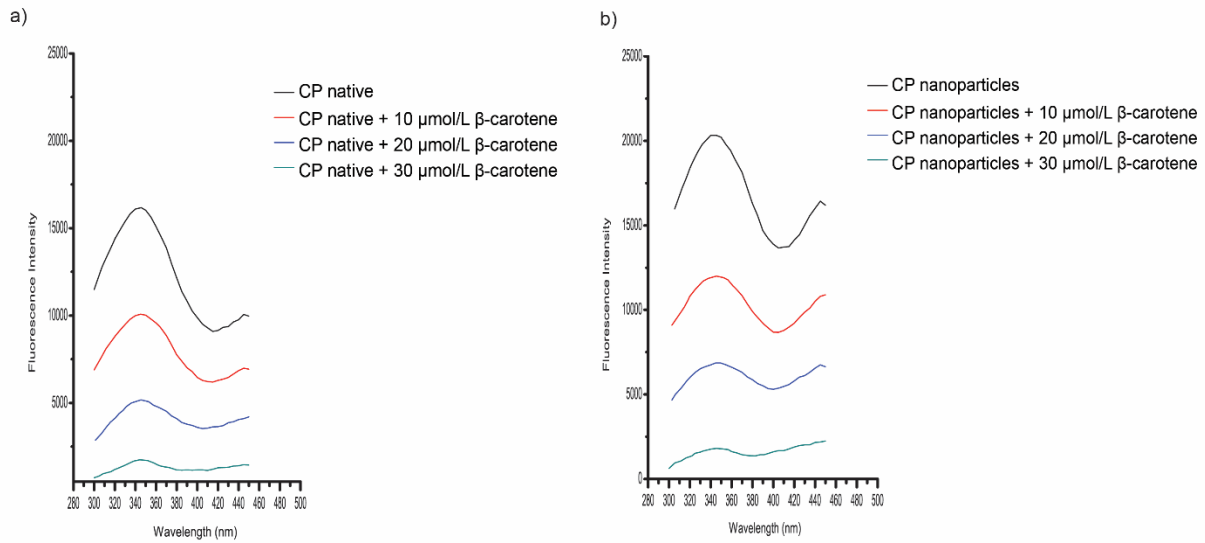


Figure S4. Fluorescence spectra of a) native white protein fraction recovered from pumpkin leaves without the assistance of enzymes (CP) and b) heat-induced nanoparticles (CP-nanoparticles) measured upon increasing concentration of β -carotene (resulting from two repetitions), after data correction.