

## **Supplementary information**

For

### **Tremella polysaccharides-coated zein nanoparticles for enhancing stability and bioaccessibility of curcumin**

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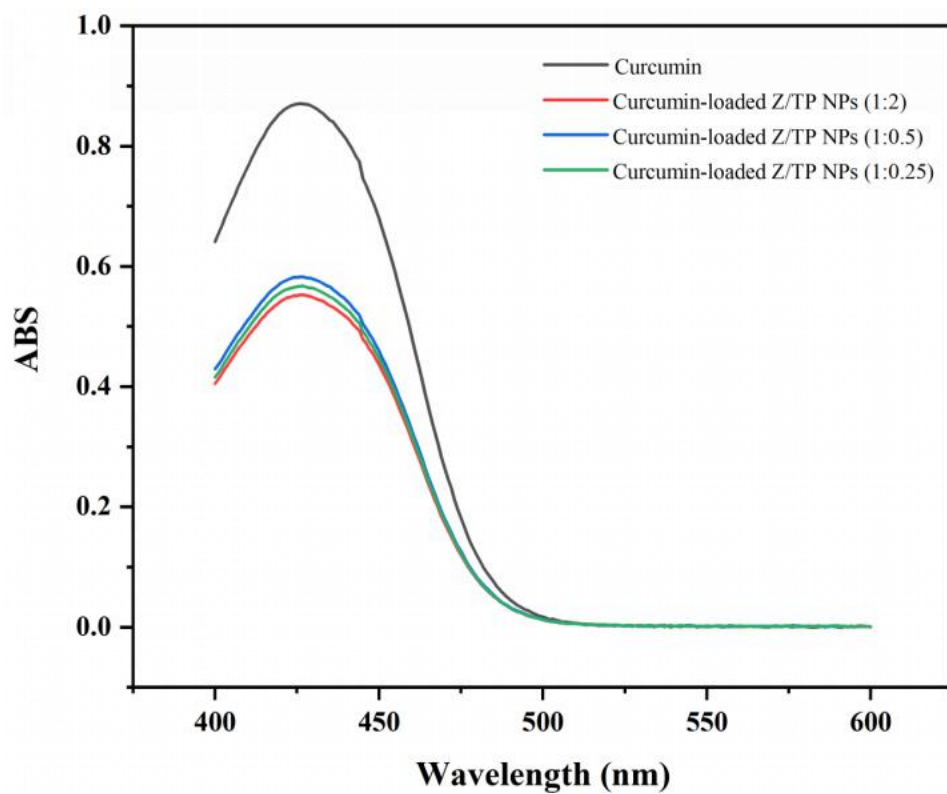
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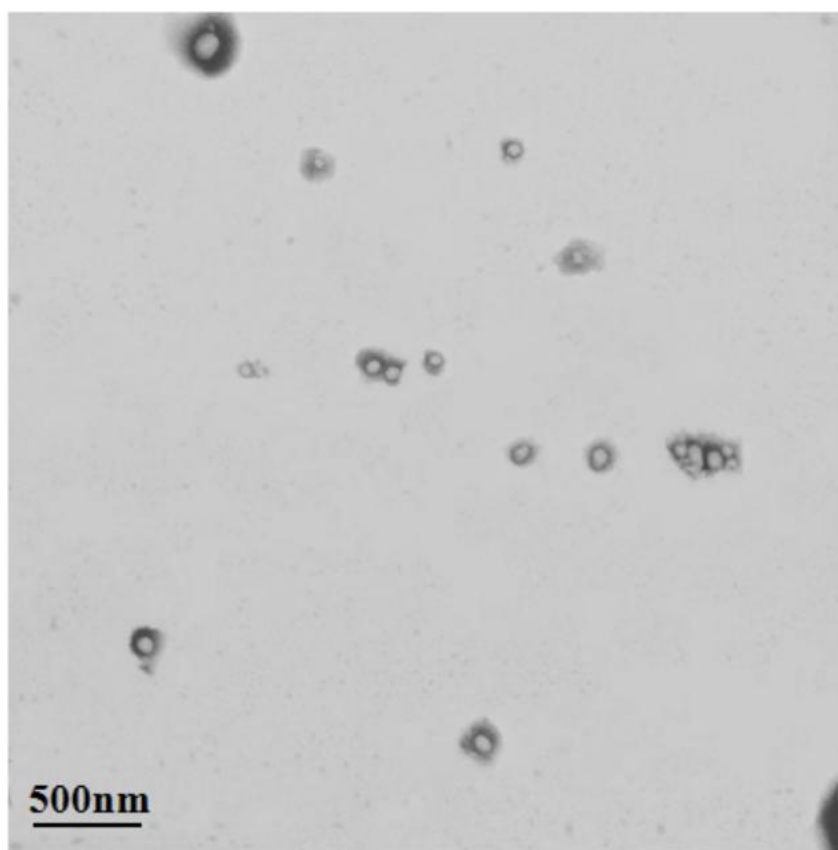
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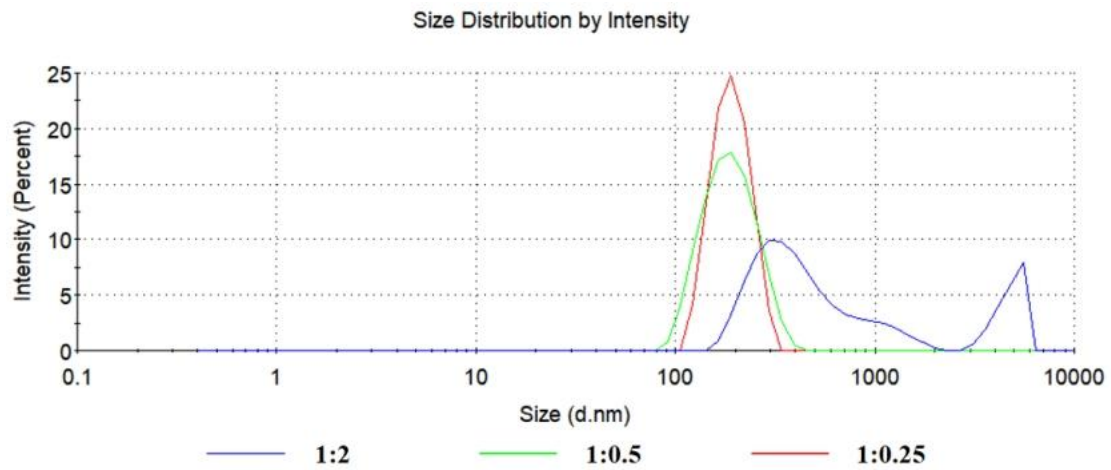
To demonstrate the reliability of using a 426 nm to measure the curcumin concentration for this zein/TP system, we have monitored the visible spectrum of the sample at 400–600 nm using a UV-2355 spectrophotometer. The UV-visible spectra was shown in Fig. S1.



**Fig. S1** UV-visible spectra of curcumin and curcumin-loaded zein/TP nanoparticles dispersions.



**Fig. S2** TEM image of curcumin-loaded zein/TP NPs with a mass ratio of 1:0.5.



**Fig. S3** Particle size distribution of re-dispersed curcumin-loaded zein/TP NPs with different mass ratios.

**Table S1**

The particle size and PDI of re-dispersed curcumin-loaded zein/TP NPs with different mass ratios.

| Sample                   | Mass ratios of zein to TP | Particle size (nm)      | PdI                    |
|--------------------------|---------------------------|-------------------------|------------------------|
| Re-dispersed zein/TP NPs | 1:2                       | 473.5±75.2 <sup>c</sup> | 0.66±0.09 <sup>c</sup> |
|                          | 1:0.5                     | 184.2±9.0 <sup>a</sup>  | 0.21±0.01 <sup>a</sup> |
|                          | 1:0.25                    | 299.5±47.3 <sup>b</sup> | 0.51±0.08 <sup>b</sup> |

Different letters in the same column indicate significantly different ( $p < 0.05$ ).