## Multiple-Responsive Supramolecular Vesicle Based on Azobenzene-Cyclodextrin Host-Guest Interaction

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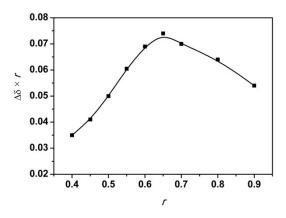


Fig. S1 <sup>1</sup>H NMR Job's plot corresponding to the chemical shift of H-5 of  $\beta$ -CD in D<sub>2</sub>O. [HPB]+[ $\beta$ -CD] =1.0 mM.

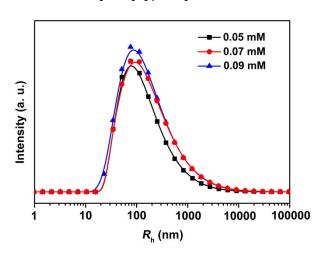


Fig. S2 Hydrodynamic radius ( $R_h$ ) distribution determined by DLS for HPB@ $\beta$ -CD aqueous solution at different concentration.

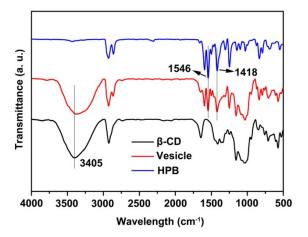
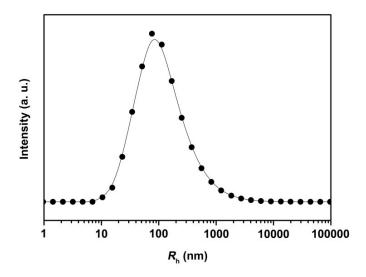
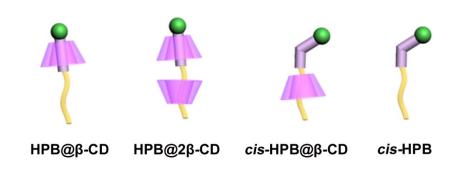


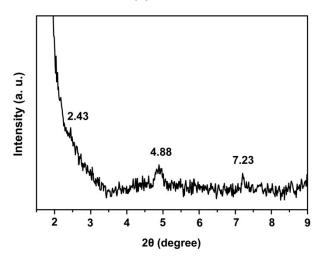
Fig. S3 FTIR spectra of pure  $\beta$ -CD, HPB and dehydrated vesicles from 0.1 mM HPB@ $\beta$ -CD sample.



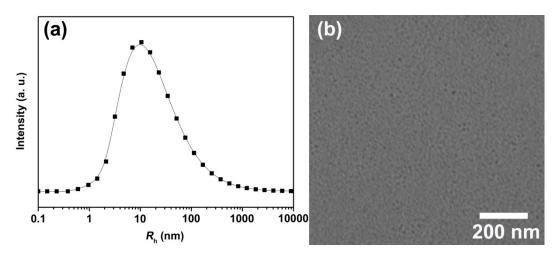
**Fig. S4** Hydrodynamic radius (*R*<sub>h</sub>) distribution determined by DLS for the reformed vesicles.



**Fig. S5** Molecular structure models of HPB@β-CD, HPB@2β-CD, *cis*-HPB@β-CD and *cis*-HPB.



**Fig. S6** XRD pattern of microbelts from 0.1 mM HPB@β-CD sample at pH = 4.5. The sample was dried in vacuum at room temperature.



**Fig. S7** Hydrodynamic radius ( $R_h$ ) distribution (a) determined by DLS and TEM (b) for micelles from 0.1 mM HPB@β-CD aqueous solution after adding ADA at 25 °C.

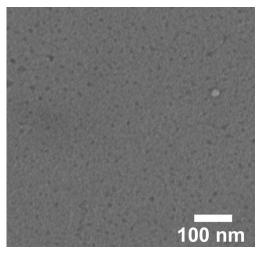


Fig.S8 TEM (b) of micelles formed in 0.1 mM HPB@ $\beta$ -CD sample after adding  $\alpha$ -amylase.