## Electronic Supplementary Information

## pH-Responsive Cocktail Drug Nanocarriers by Encapsulating Paclitaxel with Doxorubicin Modified Poly(amino acid)

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To demonstrate the existence of H-bond, alternative experiments have been carried out. The polymer PSI<sub>OAm-DOX</sub> were replaced by poly(styrene-methyl acrylic acid)(PSMAA) to prepare the PTX@PSMAA nanocapsules. For these nanocapsules, hydrophobic-hydrophobic interaction is the main driving force and they were stable in both pH 7.4 and pH 5.0 PBS (Figure S1), which further demonstrate the H-bond based nanocapsule disruption.



Figure S1 TEM images of PTX@PSMAA nanocapsules in pH (a) 7.4 and (b) pH 5.0 PBS, respectively.