Electronic Supporting Information

for

A New Type of pH-Responsive Coordination Polymer Spheres as the Vehicle for Targeted Anticancer Drug Delivery and Sustained-Release

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Tables and Figures

<table>
<thead>
<tr>
<th>Ethanol content (%)</th>
<th>80</th>
<th>95</th>
<th>100</th>
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<tbody>
<tr>
<td>Drug loading efficiency (%)</td>
<td>~ 98</td>
<td>&lt; 60</td>
<td>&lt; 20</td>
</tr>
</tbody>
</table>

Table S1  DOX·HCl loading efficiencies in different ethanol content.

Figure S1 SEM (Scanning Electron Microscope) of Fe(bbi) spheres.

Figure S2 PXRD patterns of Fe(bbi) coordination polymer spheres.
Figure S3 Fluorescence optical microscope images of coordination polymer spheres loading both DOX \( \cdot \) HCl and HCPT collected at: \( \lambda_{\text{exc}} = 540 - 552 \text{ nm} \) and \( \lambda_{\text{em}} > 590 \text{ nm} \) for DOX; \( \lambda_{\text{exc}} = 359 - 371 \text{ nm} \) and \( \lambda_{\text{em}} > 397 \text{ nm} \) for CPT.

Figure S4 Size distribution profiles for (a) DOX/Fe(bbi) and (b) DOX/Fe(bbi)@SiO\(_2\) spheres determined by DLS.
Figure S5 UV-visible spectra of the solution before and after encapsulation (solution alone, without spheres) which was diluted to 1/10. Embedded figure is the photograph of the reaction solution before and after DOX encapsulation.

Figure S6 Size distribution profiles of different times for DOX/Fe(bbi) in (a) pH 7.4 PBS  (b) pH 5.0 PBS and DOX/Fe(bbi)@SiO₂ in (a) pH 7.4 PBS  (b) pH 5.0 PBS determined by DLS.
Figure S7 Zeta potential of DOX/Fe(bbi) and DOX/Fe(bbi)@SiO$_2$ in deionized water.

Figure S8 In vitro cytotoxicity of Fe(bbi) and Fe(bbi)@SiO$_2$ in 48h.