Biodegradable multi-blocked polyurethane micelles for intracellular drug delivery: the effect of disulfide location on the drug release profile

Electronic Supplementary Information

Yongchao Yao\textsuperscript{a}, He Xu\textsuperscript{b}, Chang Liu\textsuperscript{a}, Yayuan Guan\textsuperscript{a}, Deqiu Xu\textsuperscript{a}, Jiya Zhang\textsuperscript{a}, Yuling Su\textsuperscript{a}, Lili Zhao\textsuperscript{a} and Jianbin Luo*\textsuperscript{a}

\textsuperscript{a} College of Chemistry and Environmental Protection Engineering, Southwest University for Nationalities, 610041 Sichuan, China. \textit{E-mail: luojb1971@163.com}
\textsuperscript{b} Department of Immunology, West China School of Preclinical and Forensic Medicine, Sichuan University

Fig. S1. GPC curves of purified PU-SS-C and PU-SS-I with and without DTT
Fig. S2 $^1$H NMR spectra of reduction-sensitive polyurethane (PU-SS-I) in DMSO-d6 and its micelles in D$_2$O.

Fig. S3 (A) Typical fluorescence excitation spectra ($\lambda_{em}$=372 nm) of reduction-sensitive polyurethane micelles. (B) $I_{337.0}/I_{333.5}$ ratios in the excitation spectra as a function of micellar concentrations (Log C). The CMCs are obtained from the intersection of the two tangent lines shown by the arrows.

Table S1. Composition and characteristics of reduction-sensitive polyurethanes and their micelles

<table>
<thead>
<tr>
<th>Samples</th>
<th>Feed ratio (nmol)</th>
<th>MN (g/mol)</th>
<th>MW (g/mol)</th>
<th>Mn/Mw</th>
<th>Size (nm)</th>
<th>Zeta potential (mV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU-SS-I</td>
<td>3.2</td>
<td>24121</td>
<td>40748</td>
<td>1.69</td>
<td>132.0</td>
<td>-20.7</td>
</tr>
<tr>
<td>PU-SS-C</td>
<td>3.2</td>
<td>19150</td>
<td>31586</td>
<td>1.65</td>
<td>137.2</td>
<td>-7.2</td>
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</tbody>
</table>

Table S2. Elemental analysis results of PU-SS-I and PU-SS-C

<table>
<thead>
<tr>
<th>Sample</th>
<th>N (%)</th>
<th>C (%)</th>
<th>H (%)</th>
<th>S (%)</th>
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</thead>
<tbody>
<tr>
<td>PU-SS-I</td>
<td>3.00</td>
<td>61.79</td>
<td>8.70</td>
<td>0.526</td>
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<tr>
<td>PU-SS-C</td>
<td>3.22</td>
<td>61.11</td>
<td>8.67</td>
<td>0.481</td>
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</table>