Supporting Information for

*S-nitrosothiol-modified hyperbranched polyesters*

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Supporting Information

Table S1. Hydrodynamic size of hyperbranched polyesters modified with DTT suspensions.

Fig. S1 Quantitative $^{13}$C-NMR spectra of hyperbranched polyesters.

Fig. S2 UV-vis spectra of $S$-nitrosothiol-modified hyperbranched polyesters, G2-HP-AC exposed to the nitrosation reaction conditions, and G2-HP-AC.

Fig. S3 $^1$H NMR spectra of HP-G3-DTT and HP-G4-DTT.

Fig. S4 GPC chromatograms of hyperbranched polyesters modified with DTT.

Fig. S5 FTIR spectra for G3-HP-DTT, G3-HP-DTT/NO, G3-HP-AC exposed to the nitrosation reaction conditions, and G3-HP-AC.
Fig. S1 Quantitative $^{13}$C-NMR spectra of hyperbranched polyesters: (A) G2-, (B) G3-, and (C) G4-HP.

Degree of branching (DB) was determined by the integration of distinct peaks in $^{13}$C NMR spectrum at 50.6 (T), 48.8 (L), and 46.8 (D) ppm, respectively, using equation S1.

$$DB = \frac{\Sigma D + \Sigma T}{\Sigma D + \Sigma T + \Sigma L}$$
Fig. S2 UV-vis spectra of S-nitrosothiol-modified hyperbranched polyesters measured in acetone (0.1 mg mL⁻¹): A) G2-HP-DTT/NO (black), G2-HP-DTT (red), G2-HP-AC exposed to the nitrosation reaction conditions (green), and G2-HP-AC (blue), and B) characteristic S-nitrosothiol bands for G2-HP-ET/NO (black), G2-HP-BT/NO (red), G2-HP-DTT/NO (green), G3-HP-DTT/NO (blue), and G4-HP-DTT/NO (cyan).

Fig. S3 ¹H NMR spectra of A) G3-HP-DTT and B) G4-HP-DTT.
**Fig. S4** GPC chromatograms of hyperbranched polyesters modified with DTT: A) G2-, B) G3-, and C) G4-HP-DTT.
**Fig. S5** FTIR spectra for: A) G3-HP-DTT, B) G3-HP-DTT/NO, C) G3-HP-AC, and D) G3-HP-AC exposed to the nitrosation reaction conditions. A droplet of highly concentrated polyesters acetone solution was added onto the ATR-FTIR stage, and the spectra were collected via ATR mode.

**Table S1** Hydrodynamic size of hyperbranched polyesters modified with DTT suspensions.\(^a\)

<table>
<thead>
<tr>
<th>Polyesters</th>
<th>Hydrodynamic size (nm)(^b)</th>
<th>PDI</th>
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<tbody>
<tr>
<td>G2-HP-DTT/NO</td>
<td>1170 ± 160</td>
<td>0.12 ± 0.07</td>
</tr>
<tr>
<td>G3-HP-DTT/NO</td>
<td>1050 ± 180</td>
<td>0.10 ± 0.07</td>
</tr>
<tr>
<td>G4-HP-DTT/NO</td>
<td>987 ± 150</td>
<td>0.09 ± 0.06</td>
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</tbody>
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\(^{a}\) n ≥ 3 separate syntheses.\(^b\) As determined by Dynamic Light Scattering. The concentration of NO-releasing scaffold in PBS solution for DLS measurement was the same with for NO analyzer measurement (0.33mg mL\(^{-1}\)).