Supporting Information

Effect of sulfur-containing side chains on transnitrosation of N-nitroso compounds of thiazolidines

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Figure S1. Formation of GSNO for buffer concentration studies by reaction of 2. Reaction conditions are as follows: compound 2, 0.45 mM; GSH, 5.0 mM; pH 1.5; phosphate buffer concentration, 50 mM(●), 100 mM(▲), 250 mM(■), 500 mM(×); 37°C

Table S1. $k_{obs}$ for GSNO formation under the acidic conditions.

<table>
<thead>
<tr>
<th>Concentration (mM)</th>
<th>$k_{obs}$ ($\times 10^{-7}$/s)</th>
</tr>
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<tbody>
<tr>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>100</td>
<td>31</td>
</tr>
<tr>
<td>250</td>
<td>29</td>
</tr>
<tr>
<td>500</td>
<td>29</td>
</tr>
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</table>
Figure S2-1. $^1$H spectra of $t$-butyl 4-(bromomethyl)-1,3-thiazolidine-3-carboxylate in CD$_3$CN.

Figure S2-2. $^{13}$C spectra of $t$-butyl 4-(bromomethyl)-1,3-thiazolidine-3-carboxylate in CD$_3$OD.
Figure S3-1. $^1$H spectra of (3-nitroso-1,3-thiazolidin-4-yl)methanethiol in CDCl$_3$.

Figure S3-2. $^{13}$C spectra of (3-nitroso-1,3-thiazolidin-4-yl)methanethiol in CDCl$_3$. 
Figure S3-3. $^1$H-$^1$H COSY spectra of 3-nitroso-1,3-thiazolidin-4-yl)methanethiol.

Figure S3-4. HMQC spectra of (3-nitroso-1,3-thiazolidin-4-yl)methanethiol.
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Figure S4-1. $^1$H spectra of $t$-butyl 4-[(methylthio)methyl]thiazolidine-3-carboxylate in CDCl$_3$.

Figure S4-2. $^{13}$C spectra of $t$-butyl 4-[(methylthio)methyl]thiazolidine-3-carboxylate in CDCl$_3$. 
Figure S5-1. $^1$H spectra of 4-[(methylthio)methyl]-3-nitrosothiazolidine in CDCl$_3$.

Figure S5-2. $^{13}$C spectra of 4-[(methylthio)methyl]-3-nitrosothiazolidine in CDCl$_3$.
Figure S5-3. $^1$H-$^1$H COSY spectra of 4-[(methylthio)methyl]-3-nitrosothiazolidine.

Figure S5-4. HMQC spectra of 4-[(methylthio)methyl]-3-nitrosothiazolidine.
Figure S5-5. HMBC spectra of 4-[(methylthio)methyl]-3-nitrosothiazolidine.