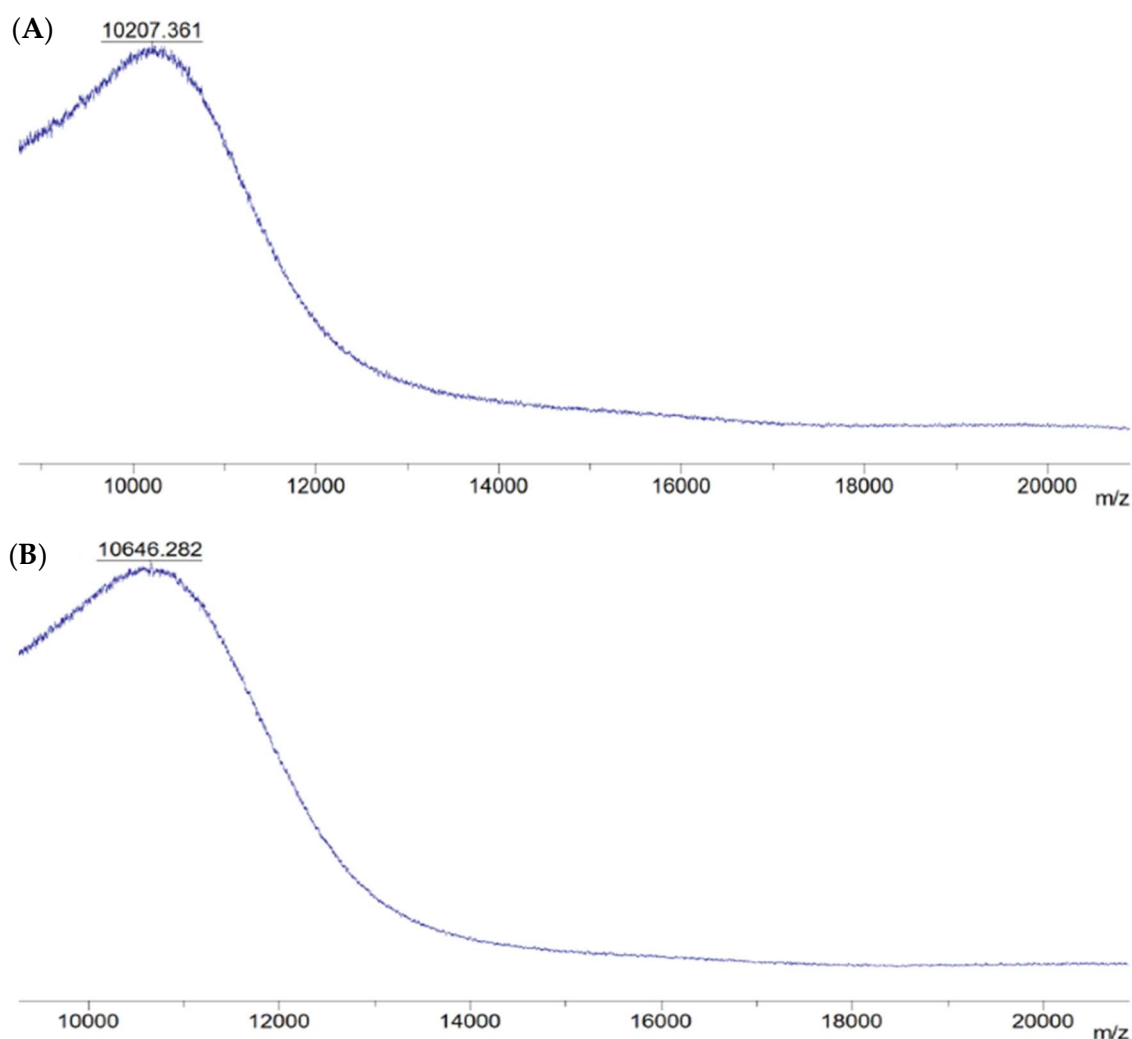
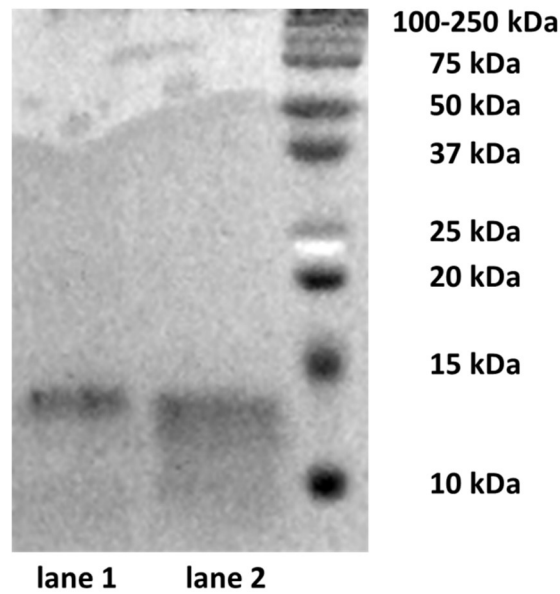


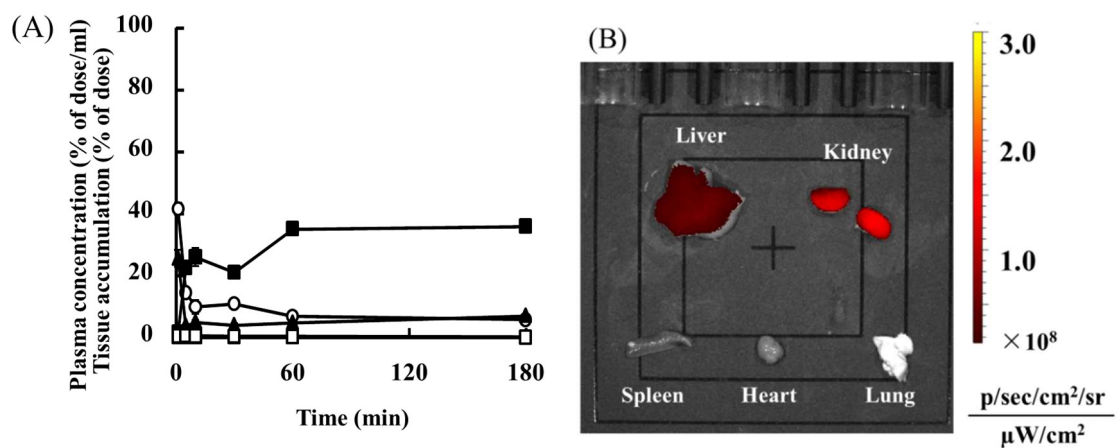
## Supplementary Materials: L-Cysteine and L-Serine Modified Dendrimer with Multiple Reduced Thiols as a Kidney-Targeting Reactive Oxygen Species Scavenger to Prevent Renal Ischemia/Reperfusion Injury



**Figure S1.** MALDI-TOF spectra of L-cysteine (Cys) and L-serine (Ser)-modified, third-generation polyamidoamine dendrimer [Ser-PAMAM-Cys] (Cysteine content 20% (A) and 40% (B)) with a *trans*-indole-3-acrylic acid matrix.



**Figure S2.** The purity and stability of Ser-PAMAM-Cys were evaluated by 15% polyacrylamide gel electrophoresis on sodium dodecyl sulfate (SDS-PAGE) under nonreducing conditions. Lane 1, Ser-PAMAM-Cys (Cys content: 20%); Lane 2, Ser-PAMAM-Cys (Cys content: 40%).



**Figure S3.** (A) Time courses of plasma concentration and tissue accumulation of  $^{111}\text{In}$ -labeled Ser-PAMAM-Cys with a high degree of Cys modification (Ser content: 60%; Cys content: 40%) after intravenous administration at  $1 \text{ mg kg}^{-1}$ . Results are expressed as means  $\pm$  SE for three mice.  $\circ$ , plasma;  $\blacktriangle$ , liver;  $\blacksquare$ , kidney;  $\diamond$ , spleen;  $\triangle$ , heart;  $\square$ , lung. (B) Ex vivo imaging of NIR-labeled Ser-PAMAM-Cys with a high degree of Cys modification (Ser content: 60%; Cys content: 40%) 60 min after intravenous injection. The fluorescence intensities were determined for the liver, kidney, spleen, heart, and lung.