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## **Supporting Information**

Figure S1. Schematic synthesis routs of mPEG-g-PEI (PP)

PEI-g-PEG-Maleimide

Figure S2. Synthesis of  $E[c(RGDyK)]_2$ -PEG-g-PEI (RPP) (a) Modify  $E[c(RGDyK)]_2$  to form terminal sulfhydryl group (b) Bind NHS-PEG-MAL to branched PEI (c) Obtain the final product by mixing (a) and (b)intermediates.

 $E[c(RGDyK)]_2$ -PEG-g-PEI

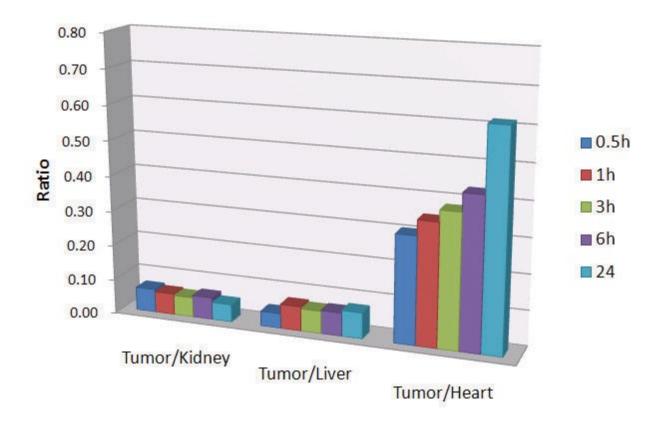


Figure S3. The tumor-to-kidney, tumor-to-liver, tumor-to-heart(blood pool) ratios for <sup>99m</sup>Tc-PP10/D in female BALB/c nude mice bearing subcutaneous Hela tumors.

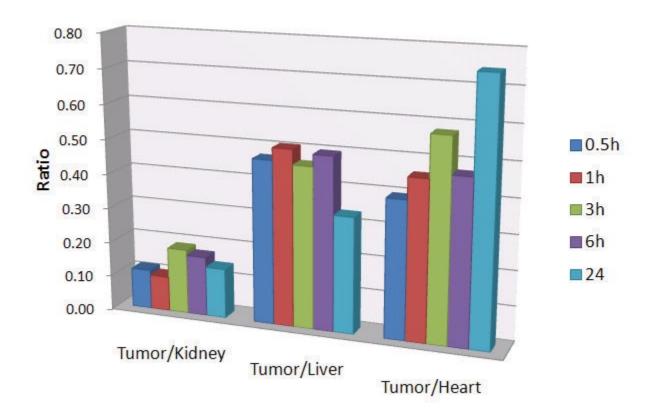


Figure S4. The tumor-to-kidney, tumor-to-liver, tumor-to-heart(blood pool) ratios for <sup>99m</sup>Tc-RPP10/D in female BALB/c nude mice bearing subcutaneous Hela tumors.