

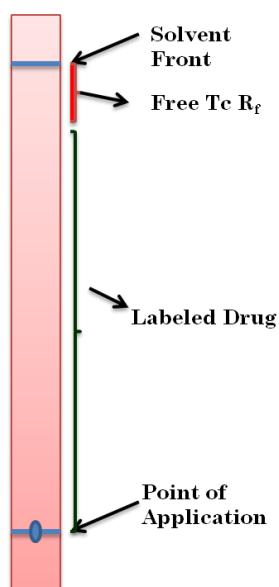
## Molecular Pharmacology

### Supplemental Information accompanying the manuscript

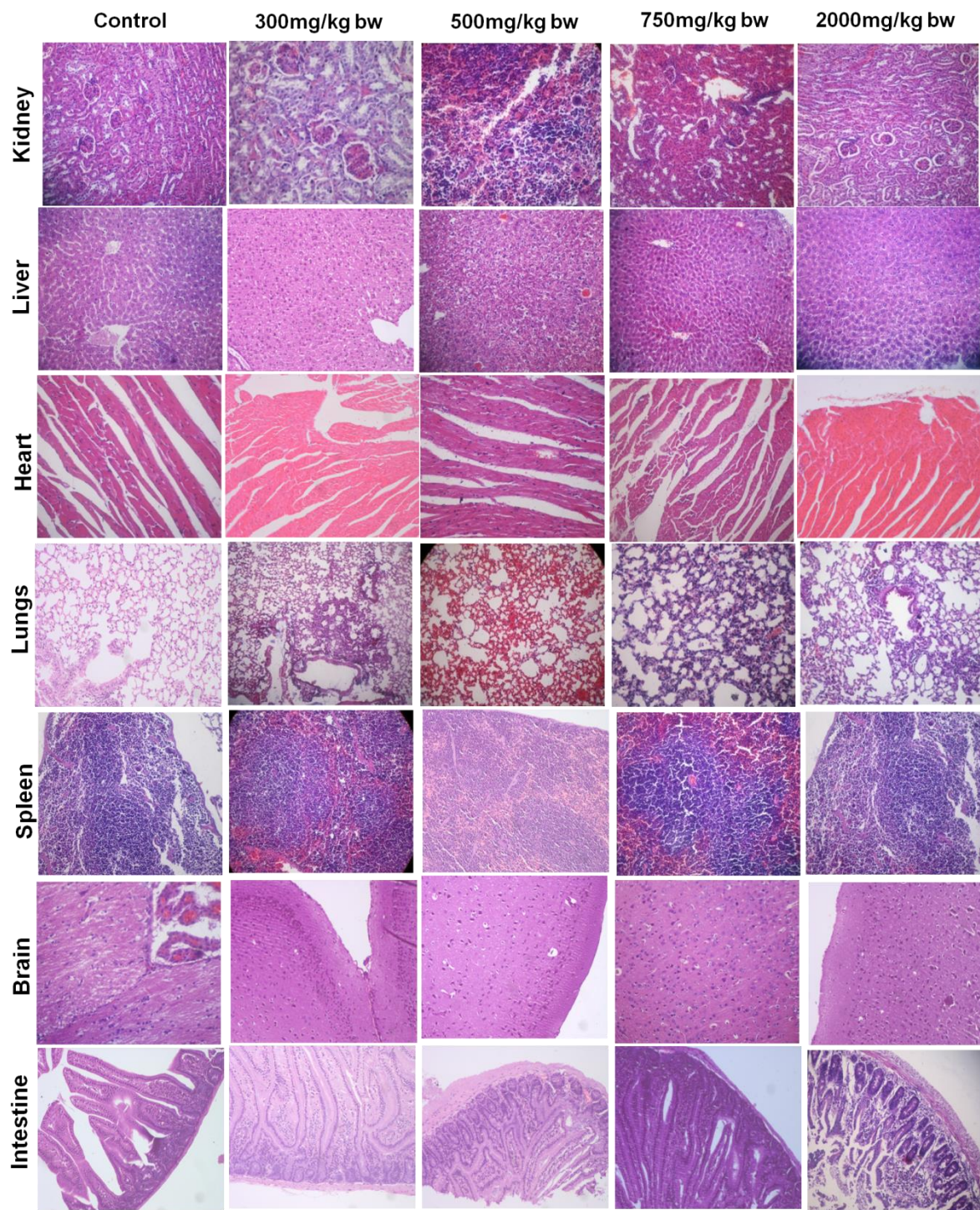
#### Preclinical Evaluation of DMA, a Bisbenzimidazole as Radioprotector: Toxicity, Pharmacokinetics and Biodistribution Studies in Balb/c Mice

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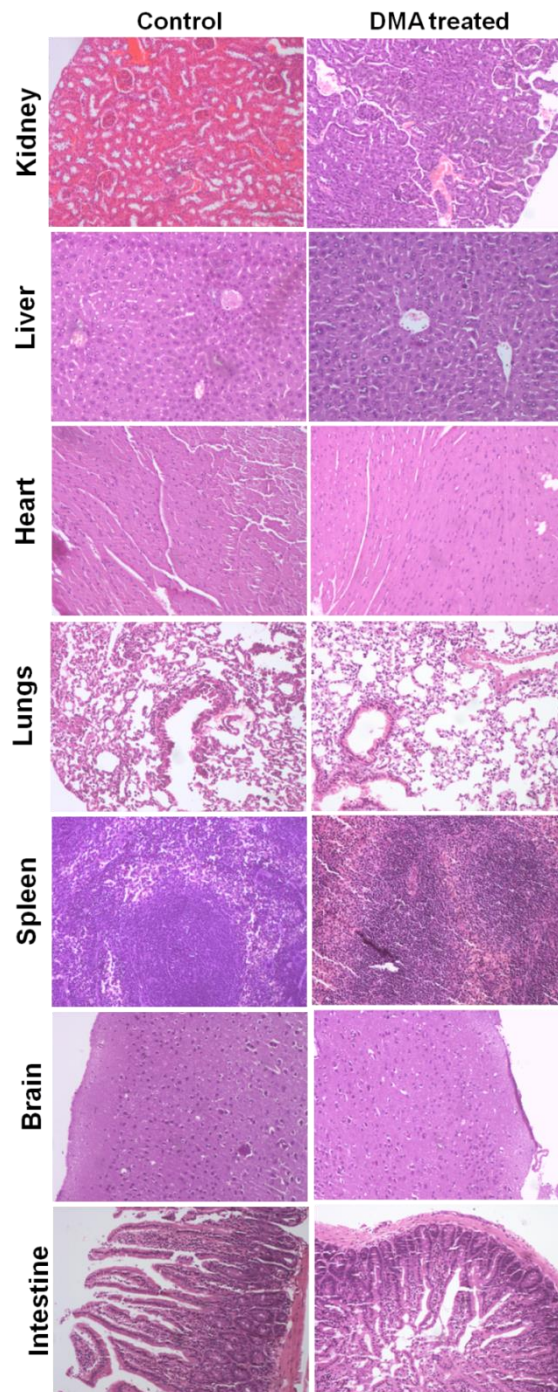


**Supplemental Figure 1.** Instant thin layer chromatography (ITLC) showing the point of application and the distance traveled by <sup>99m</sup>Tc-labeled compound and free Tc.

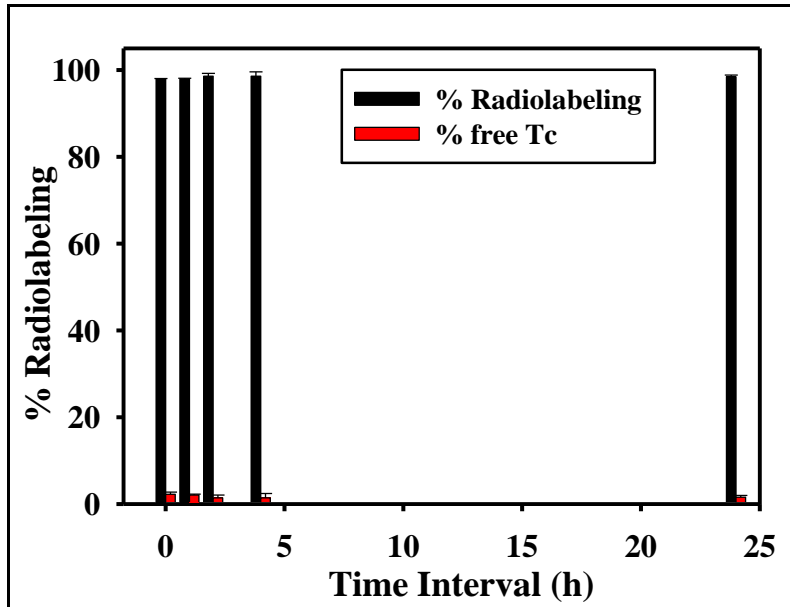


**Supplemental Figure 2.** Tissue histopathological picture of mice treated with the DMA at increasing doses (300, 500, 750, 1500 and 2000mg/kg bw) (H&E, magnification  $\times 200$ ); Kidney, liver, heart, lungs, spleen, brain and intestine of control animals and DMA treated animals.

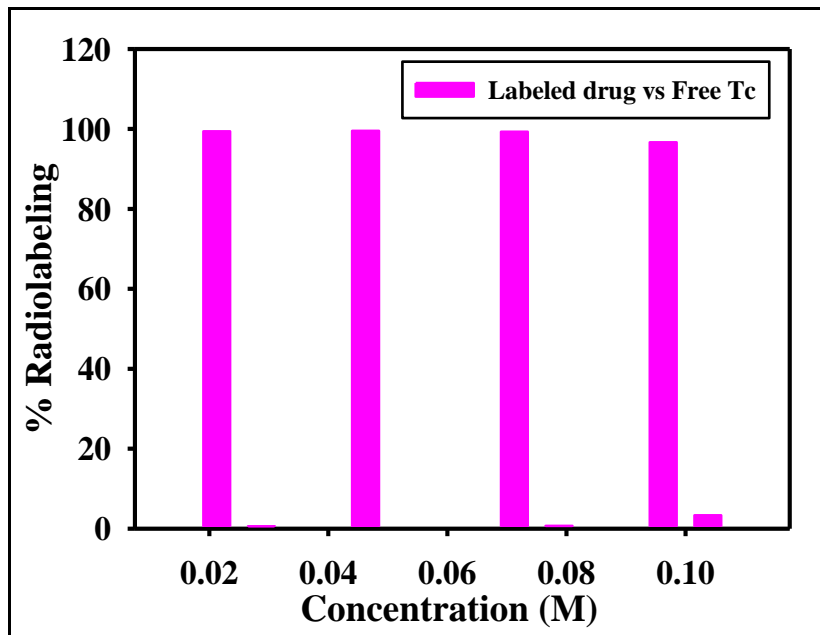




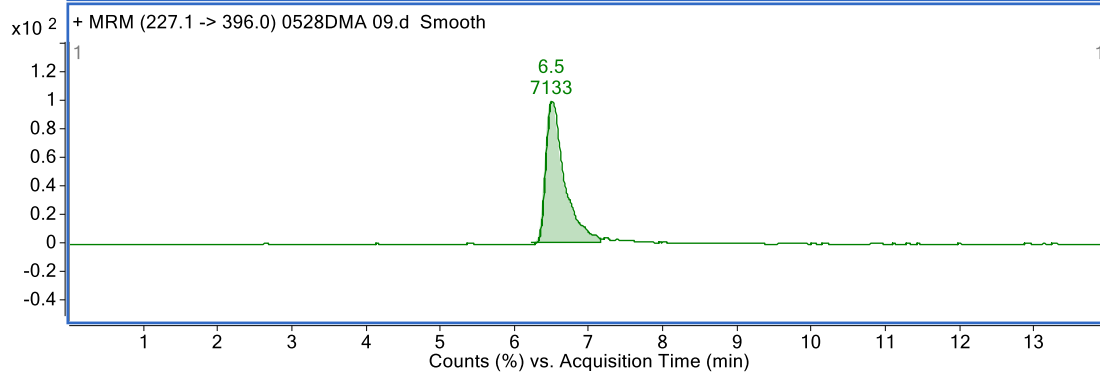
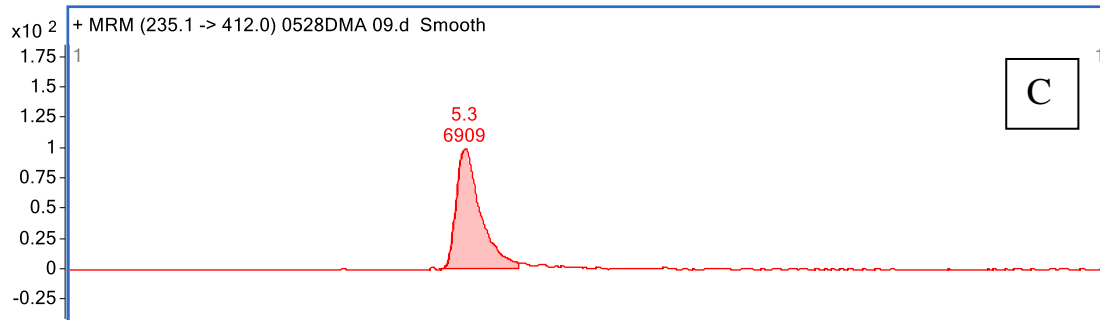
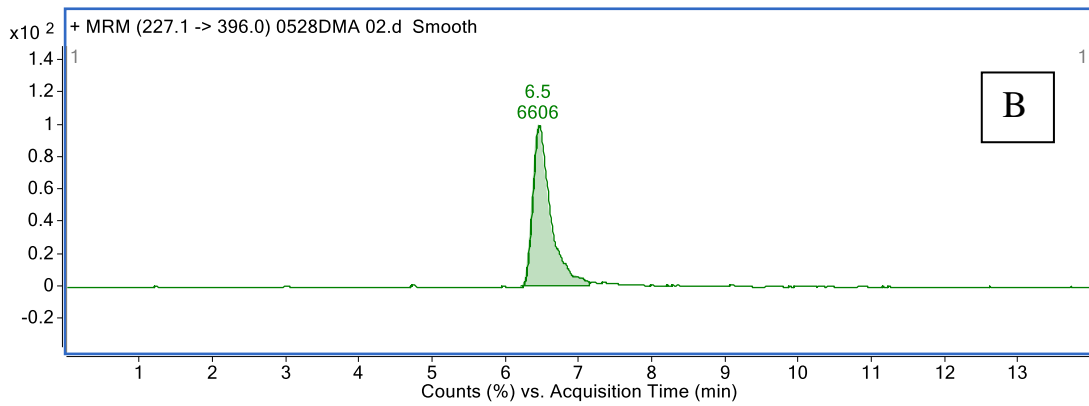
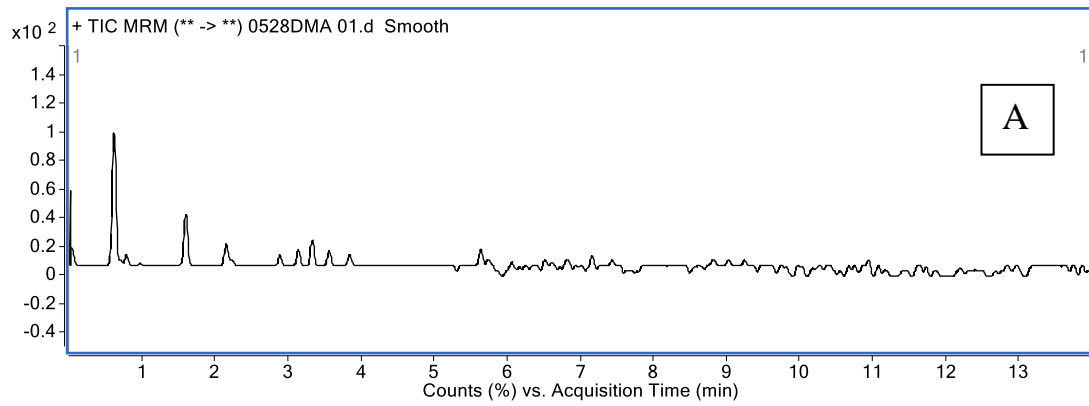
**Supplemental Figure 3.** Tissue histopathological picture of mice treated with the DMA at 225mg/kg bw dose for 28-days (H&E, magnification  $\times 200$ ); Kidney, liver, heart, lungs, spleen, brain and intestine of control animals and DMA treated animals.



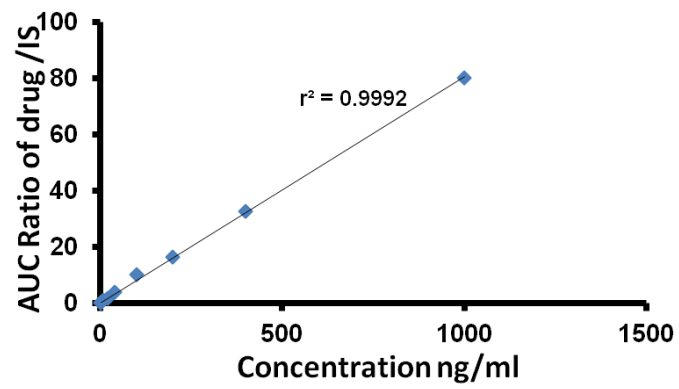
Supplemental Figure 4. *In vitro* stability of  $^{99m}\text{Tc}$ -DMA at 0, 1, 2, 4 and 24h in serum.



Supplemental Figure 5. Effect of DTPA on radiolabeling efficiency of  $^{99m}\text{Tc}$ -DMA



**Supplemental Figure 6.** (A) Blank plasma LC-MS chromatogram; (B) Blank plasma spiked with IS (Hoechst 33342) LC-MS chromatogram; (C) LC-MS chromatogram of the plasma sample spiked with DMA and IS.



**Supplemental Figure 7.** Calibration curve plotted after injecting the DMA at different concentrations spiked in blank plasma.