

Supplementary material

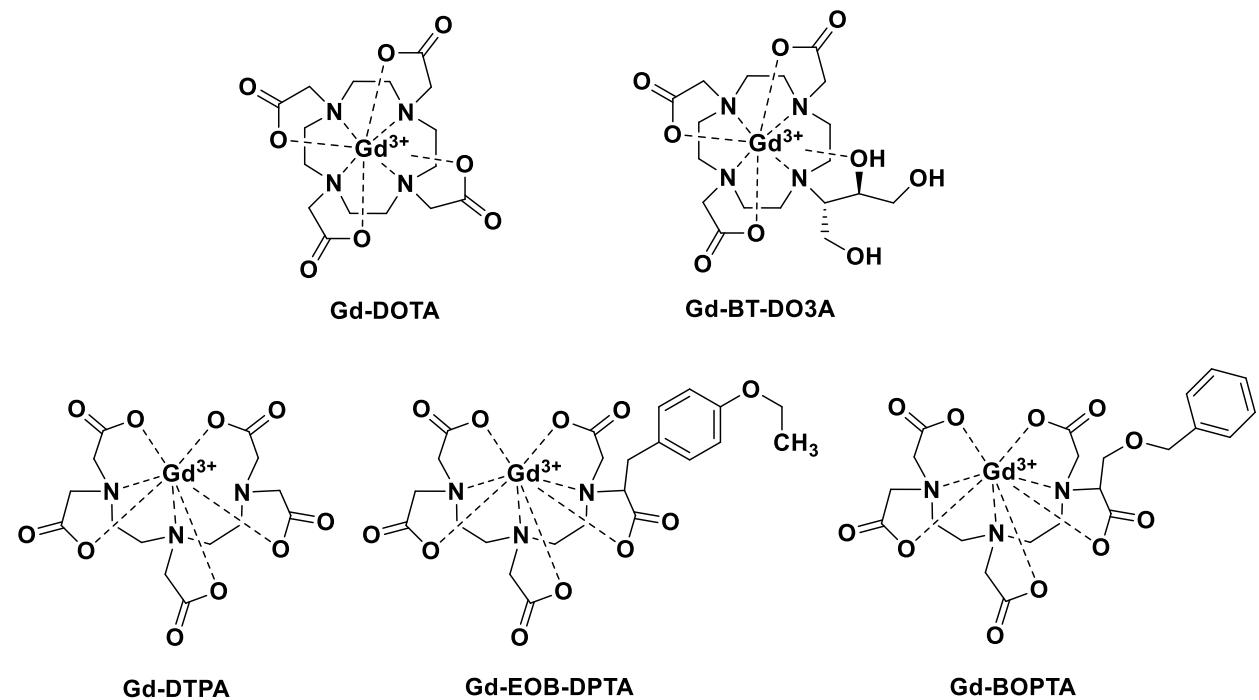
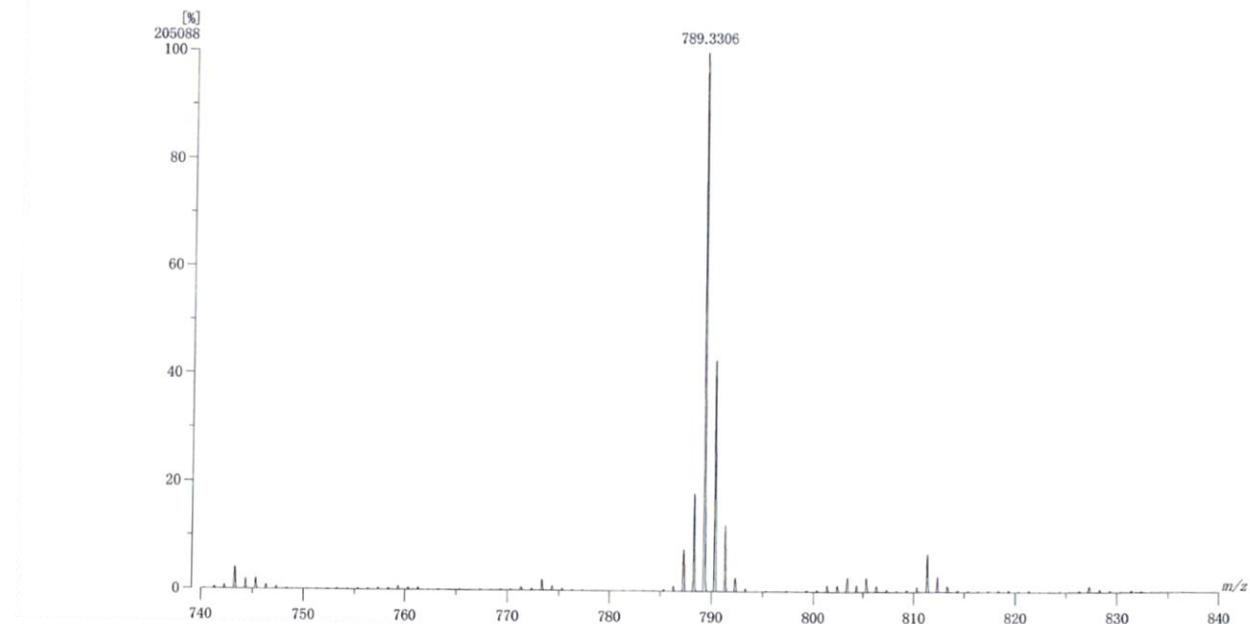


Chart S1. Clinically used MRI contrast agents.

[Mass Spectrum]
 Data : RosA-L-HRFAB Date : 22-Feb-2019 17:03
 Instrument : MStation
 Sample : -
 Inlet : Direct Ion Mode : FAB+
 Spectrum Type : Normal Ion [EF-Linear]



[Mass Spectrum]
 Data : DO3A-t-RosA(B15)-HRFAB Date : 04-Jul-2019 10:13
 Instrument : MStation
 Sample : -
 Inlet : Direct Ion Mode : FAB+
 Spectrum Type : Normal Ion [EF-Linear]

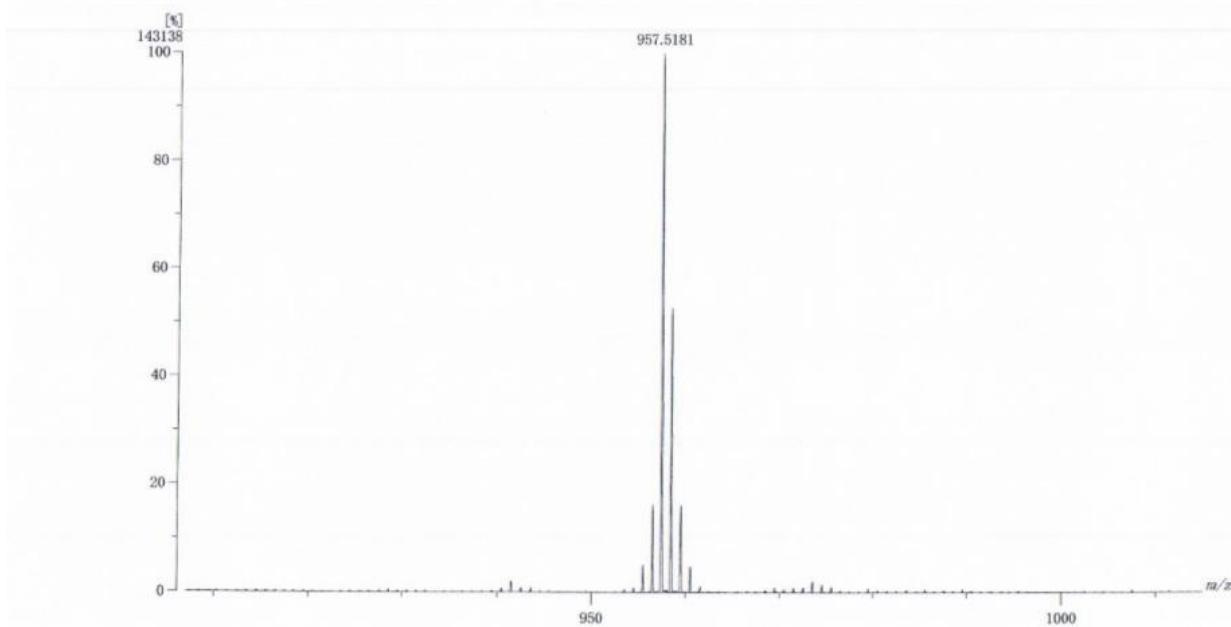


Figure 1. HR-FAB mass spectroscopy data of (1) (Top) and (2) (Bottom).

[Mass Spectrum]
 Data : Gd-RosA(BB-3)-HRFAB Date : 28-Jun-2019 10:50
 Instrument : MStation
 Sample : -
 Inlet : Direct Ion Mode : FAB+
 Spectrum Type : Normal Ion [EF-Linear]

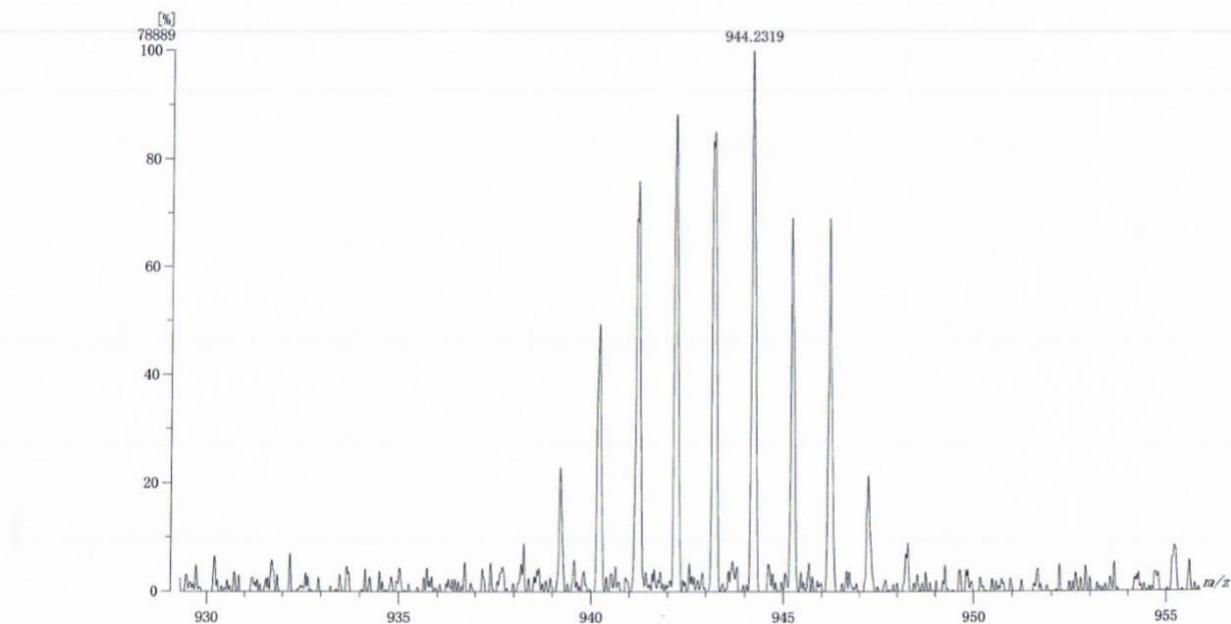


Figure 2. HR-FAB mass spectroscopy data of GdL (3).

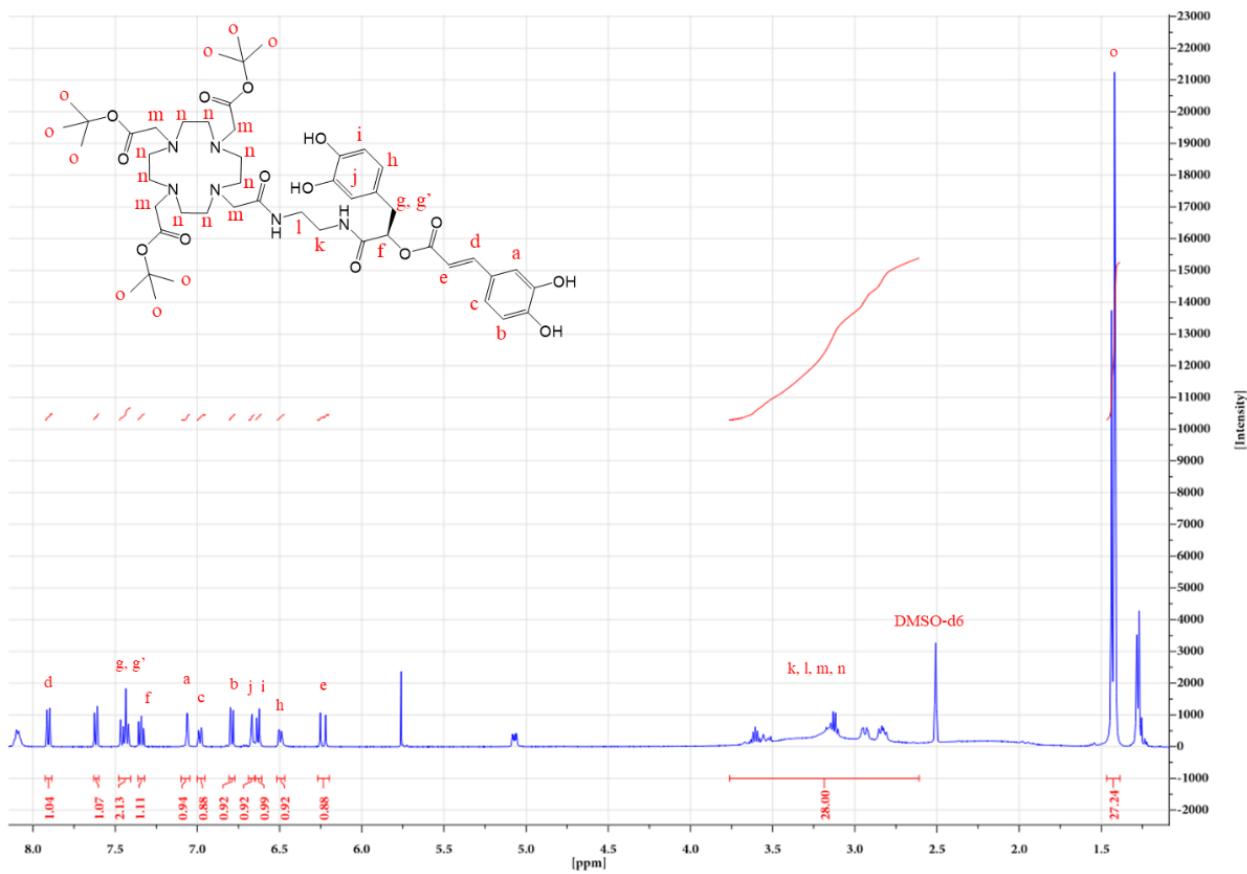


Figure 3. ^1H NMR spectroscopy data of (1).

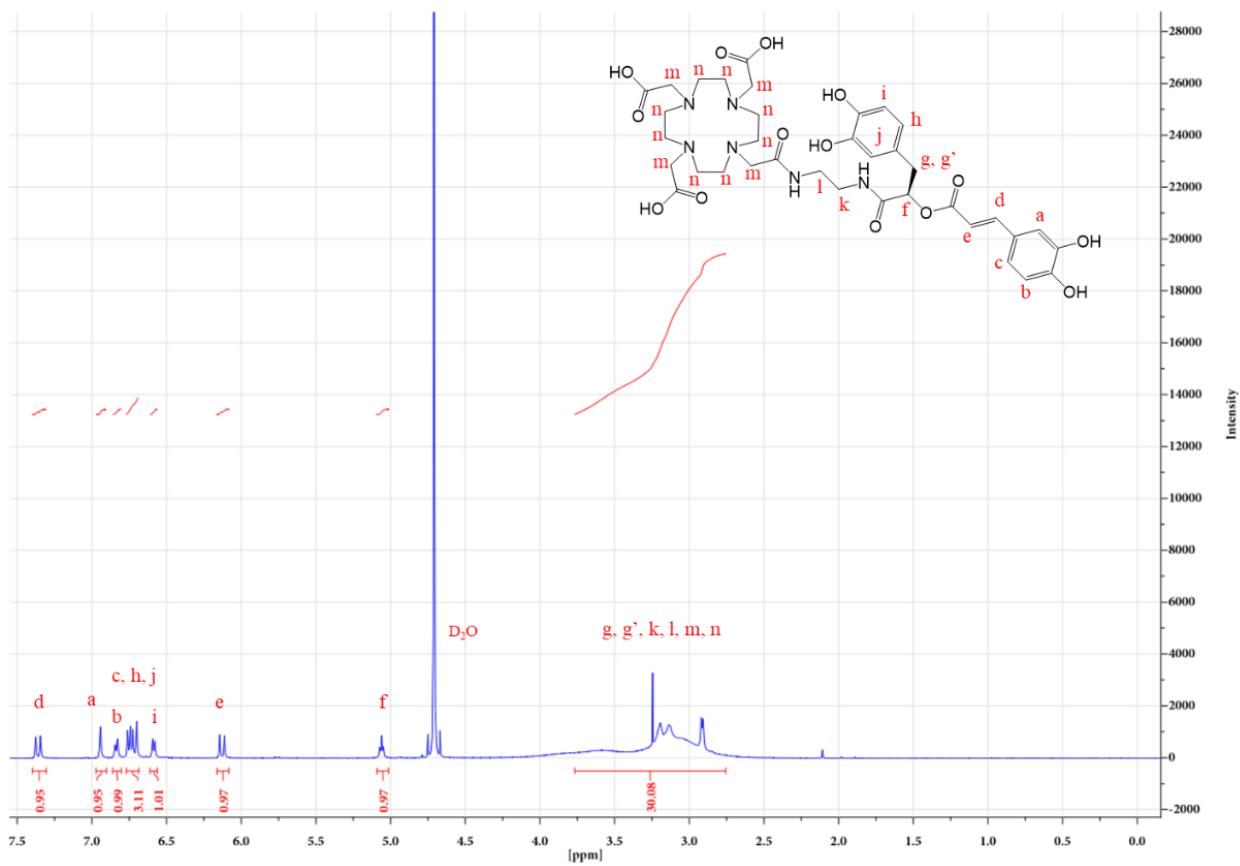


Figure 4. ^1H NMR spectroscopy data of (2).

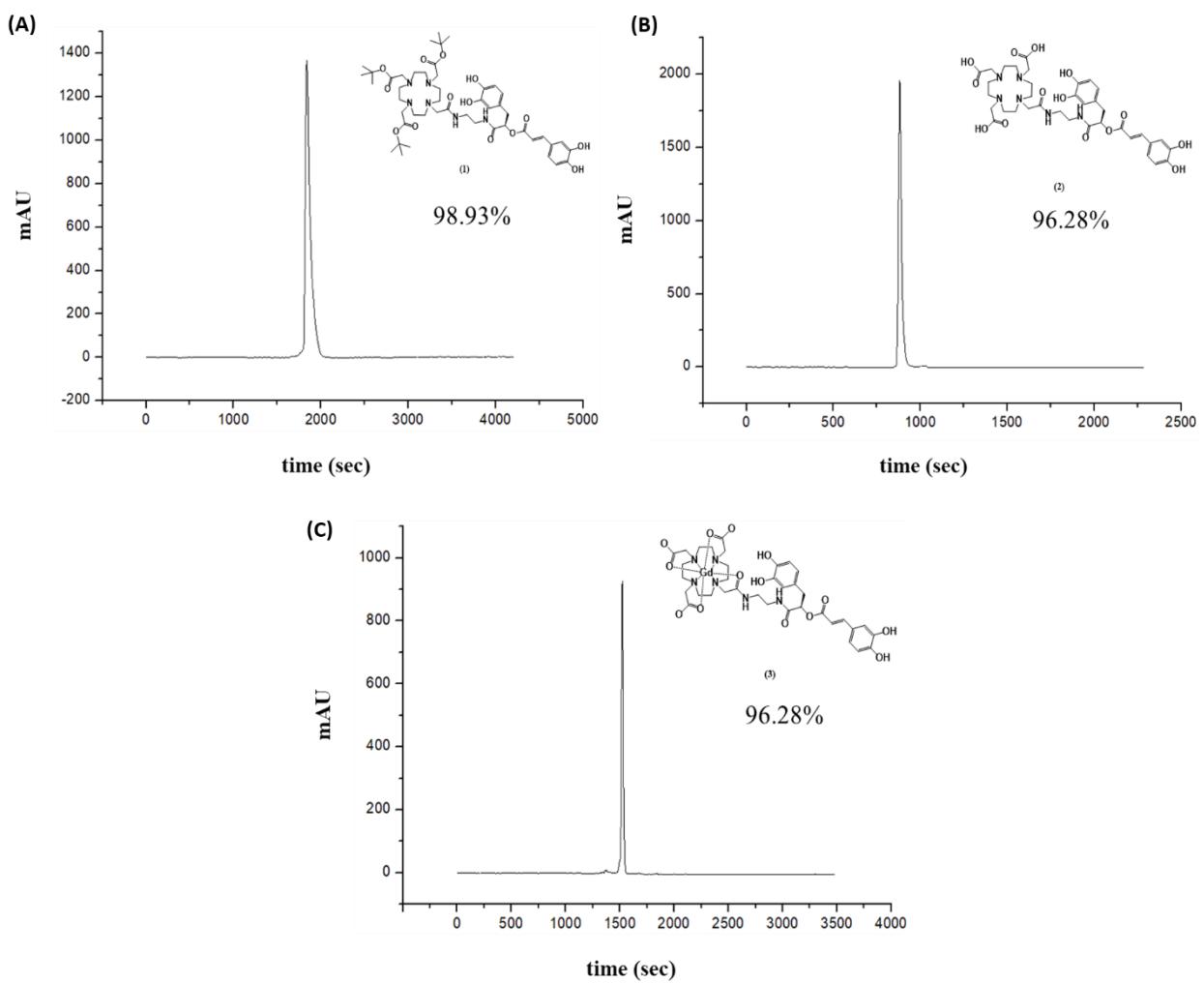


Figure 5. Peak purity in Prep-HPLC of (1) at 365 nm, (2) and GdL (3) at 330 nm detection.

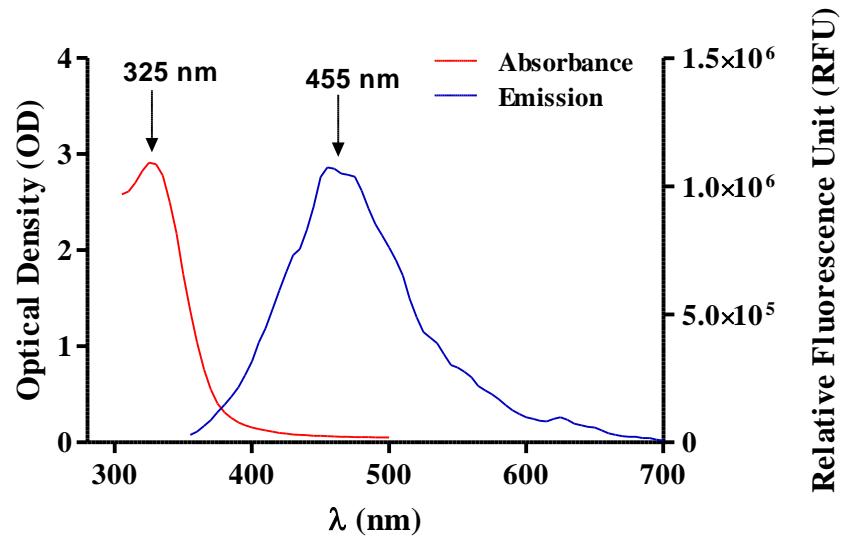


Figure 6. Absorption (Red) and Emission (Blue) spectra of GdL (3).

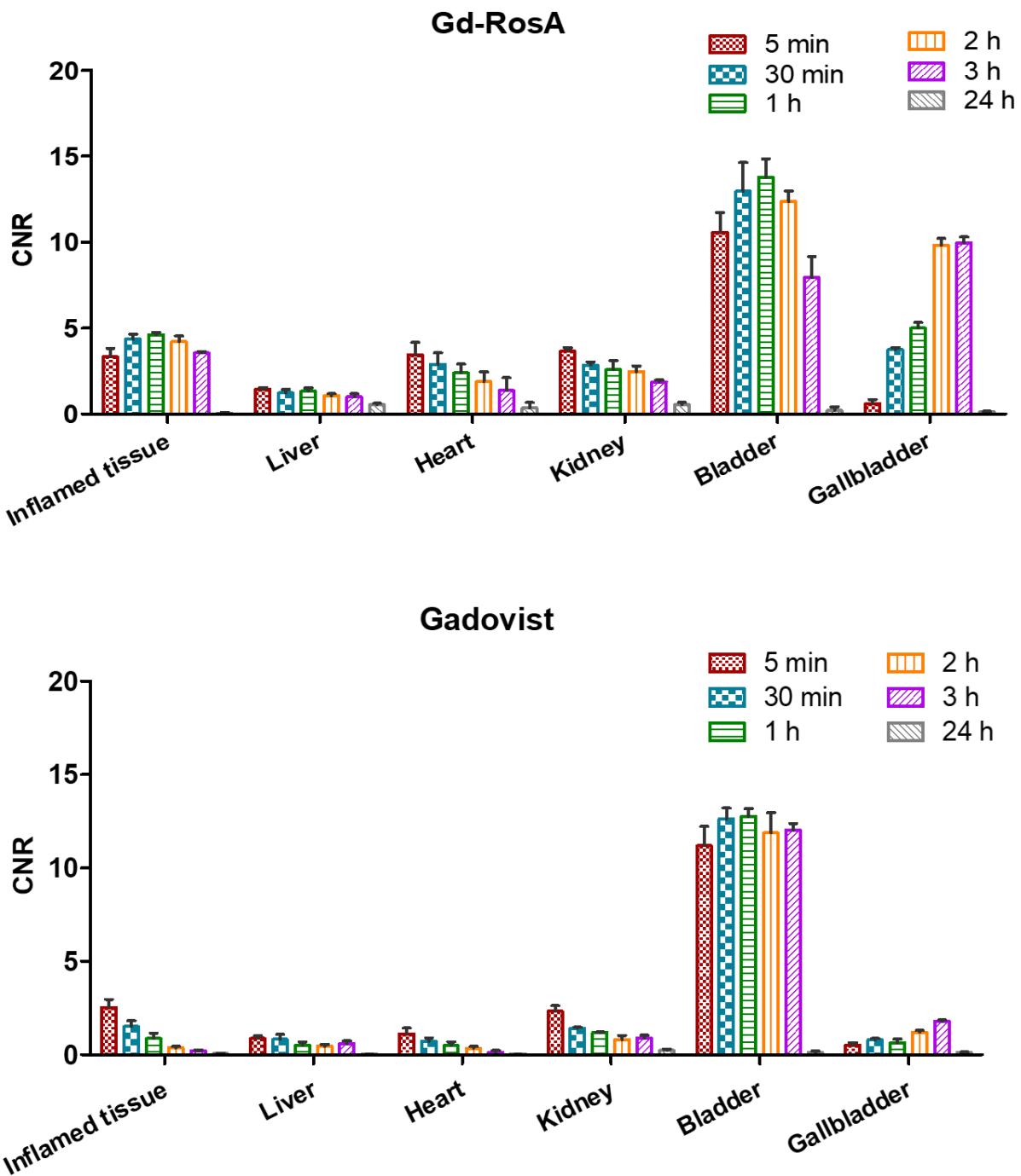


Figure 7. Biodistribution of GdL (3) and Gd-BT-DO3A (Gadovist[®]) in various tissues (each group n = 3).

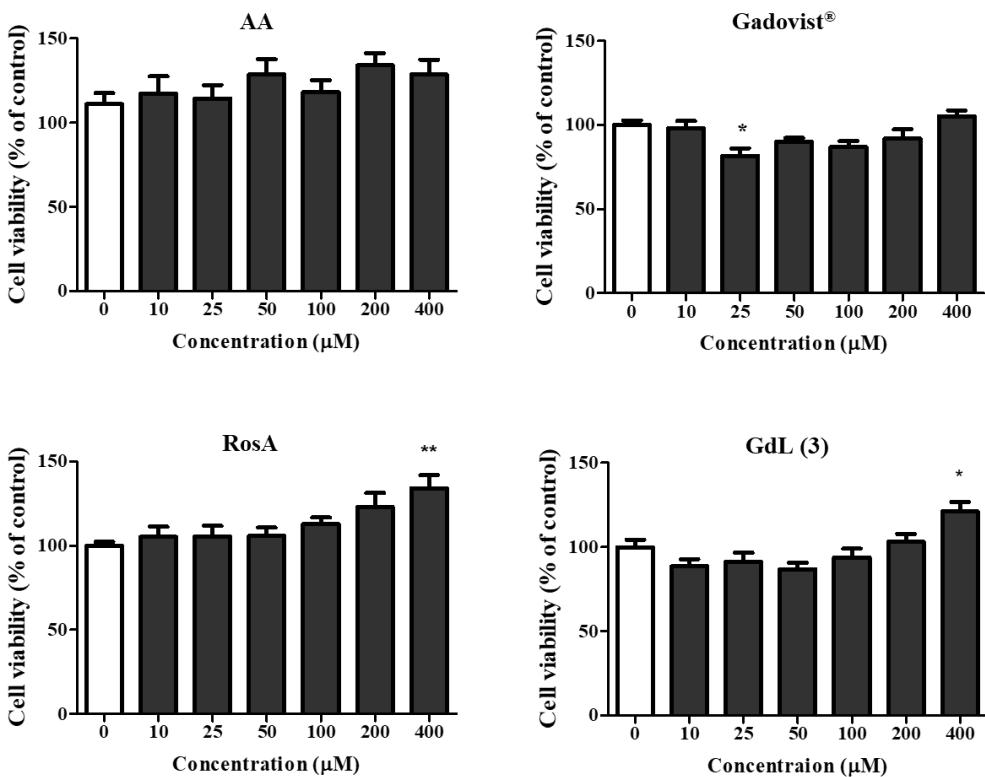


Figure 8. Cell viability of immortalized mouse myoblast cell line (C2C12) in various AA, Gd-BT-DO3A, RosA and GdL (3) concentrations.

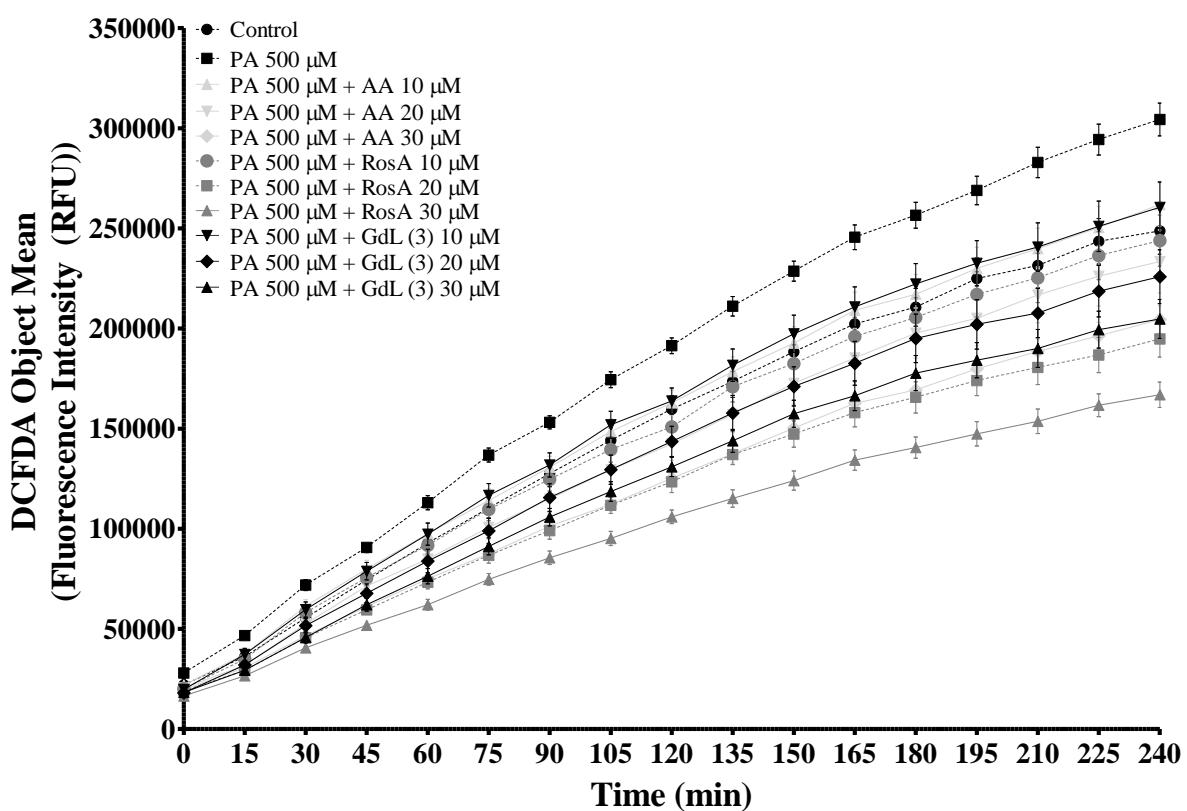


Figure 9. DCFDA object mean (fluorescence intensity) of PA-induced ROS.

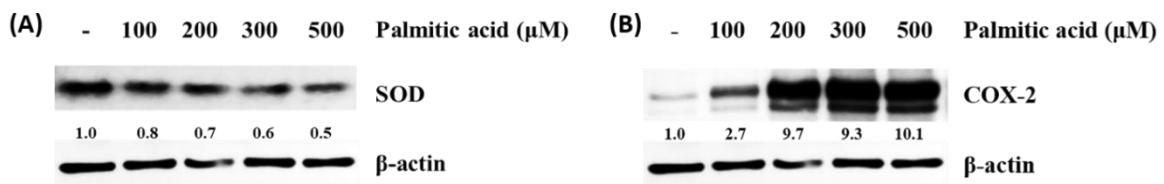


Figure 10. The expression pattern of (A) SOD and (B) COX-2 according to various concentrations (100, 200, 300, and 500 μ M) of palmitic acid. ($n = 3$ per each).

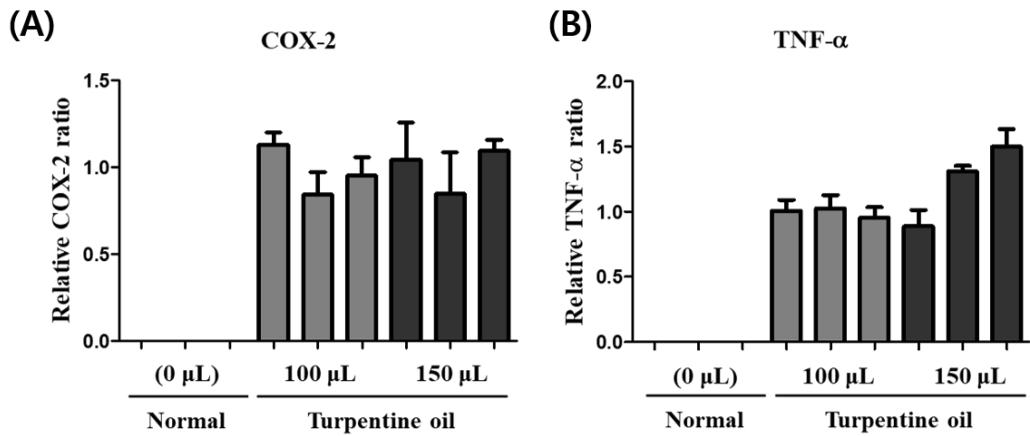


Figure S11. Expression of COX-2 and TNF- α in mice with turpentine oil injection dose. (A) COX-2 expression level according to turpentine oil injection dose. (B) TNF- α expression level according to turpentine oil injection dose.