

## Supporting Information

### **Axial PEGylation of Tin Octabutoxy Naphthalocyanine Extends Blood Circulation for Photoacoustic Vascular Imaging**

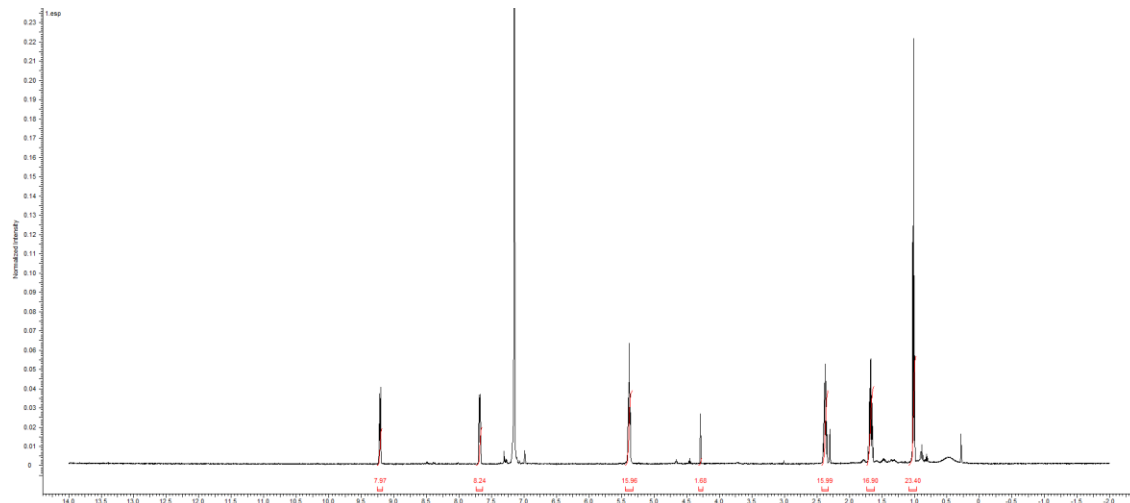
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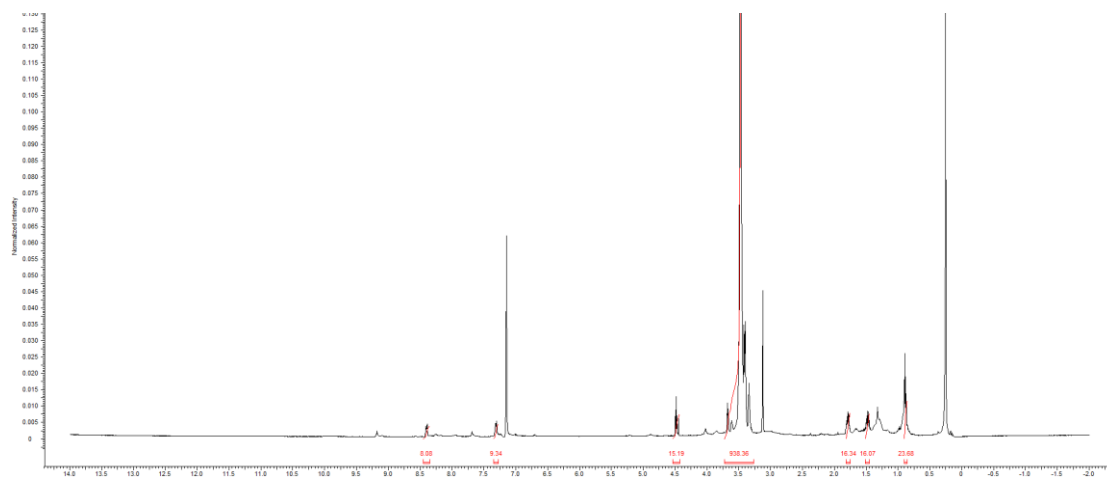
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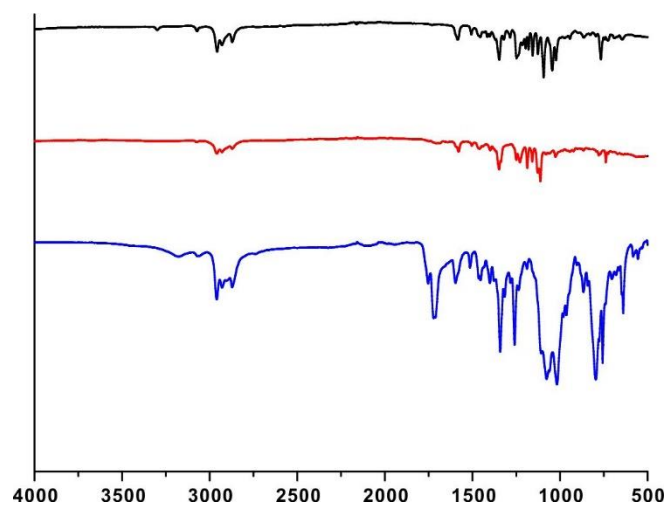
[\\*jlovell@buffalo.edu](mailto:*jlovell@buffalo.edu)



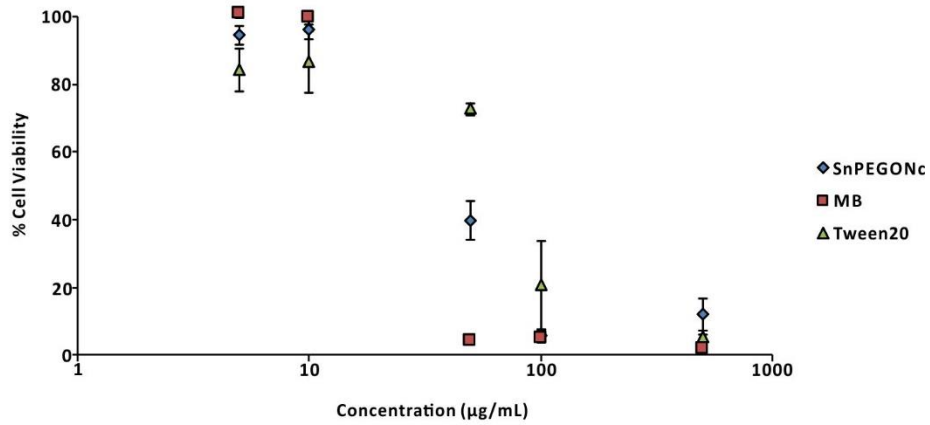
**Figure S1.**  $^1\text{H}$  NMR spectrum of SnONc in benzene-D6.



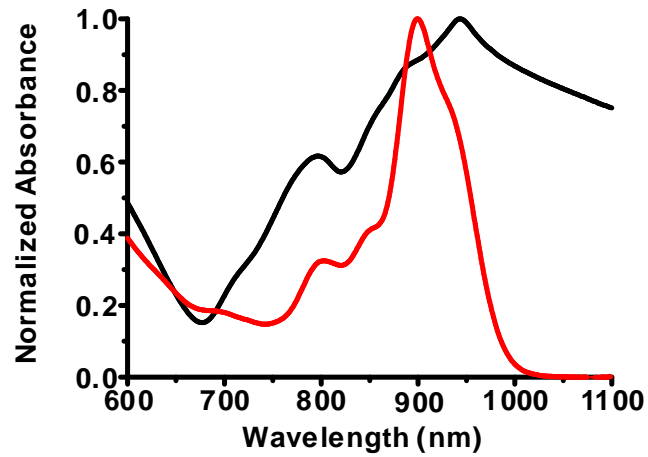
**Figure S2.**  $^1\text{H}$  NMR spectrum of PEG-Sn-ONc in benzene-D6.



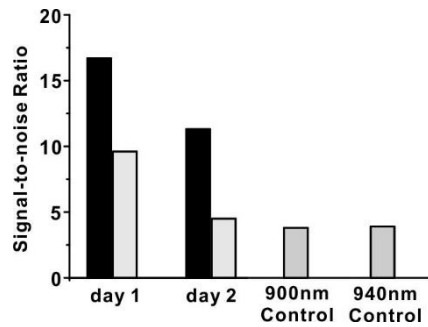
**Figure S3.** IR spectra of ONc (black line), SnONc (red line) and PEG-Sn-ONc (blue line).



**Figure S4.** Cell viability of U-87 cells incubated with methylene blue, PEG-Sn-ONc or an equivalent amount of TWEEN surfactant alone.



**Figure S5.** Absorbance of PEG-Sn-ONc (red line) and ONc (black line) in TWEEN 20.



**Figure S6.** Signal-to-noise ratio of brain vessels photoacoustic photos, mice were injected with PEG-Sn-ONc (black bars) and ONc (grey bars), last two bars are control data at 900nm and 940nm respectively.