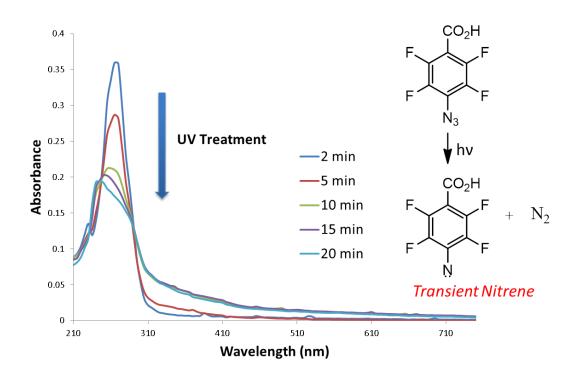
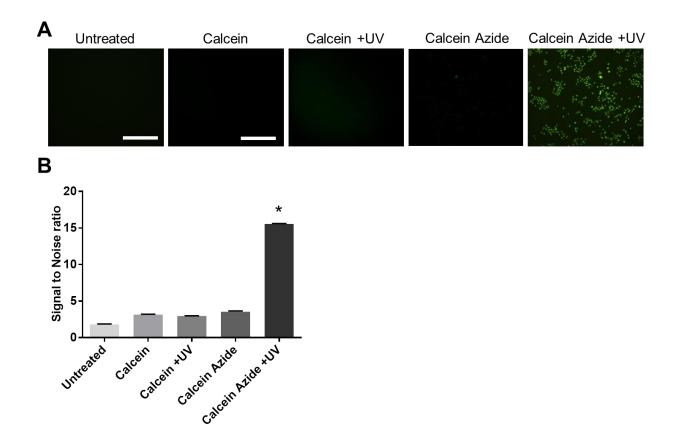


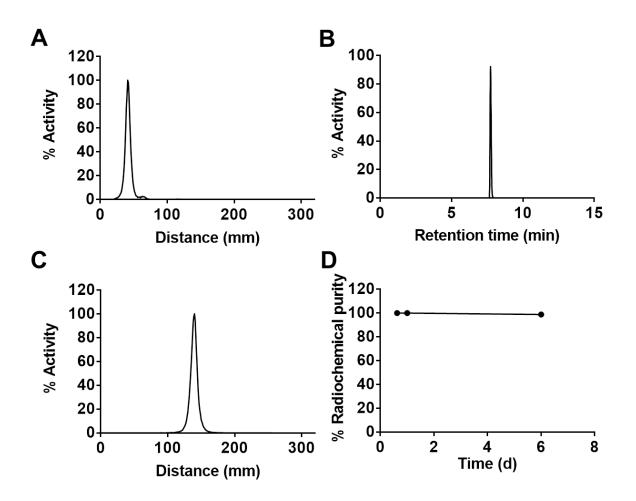
Supplemental Figure 1. Synthesis of Calcein Azide.



**Supplemental Figure 2.** Absorption spectra of 4-Azido-2,3,5,6-tetrafluorobenzoic acid with cumulative UV-C radiation doses. Inset shows UV catalyzed reaction with generation of transient nitrene.



**Supplemental Figure 3.** UV-activated cell labeling using calcein azide. **A)** Fluorescence microscopy images of MDA-MB-231 cells under different conditions. Green shows the UV-activated Calcein azide binding to cells. **B)** Quantification of fluorescence signal to noise ratio of the cells treated with calcein azide and UV light compared to the cells treated with calcein azide or calcein only as well as untreated cells (P < 0.0001).



**Supplemental Figure 4.** Radiochemical analysis of <sup>90</sup>Y-DOTA-RGD. **A)** iTLC of <sup>90</sup>Y-DOTA-RGD. **B)** radioHPLC of <sup>90</sup>Y-DOTA-RGD. **C)** iTLC of free <sup>90</sup>YCl<sub>3</sub>. **D)** Serum stability of <sup>90</sup>Y-DOTA-RGD over time.