

## Supplementary Information

### **Fenton-like reaction, glutathione reduction, and photothermal ablation- built-in hydrogels crosslinked by cupric sulfate for loco-regional cancer therapy**

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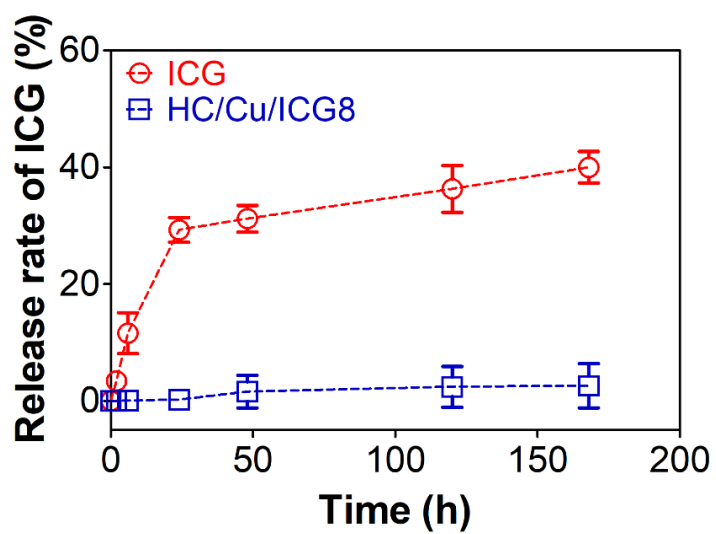
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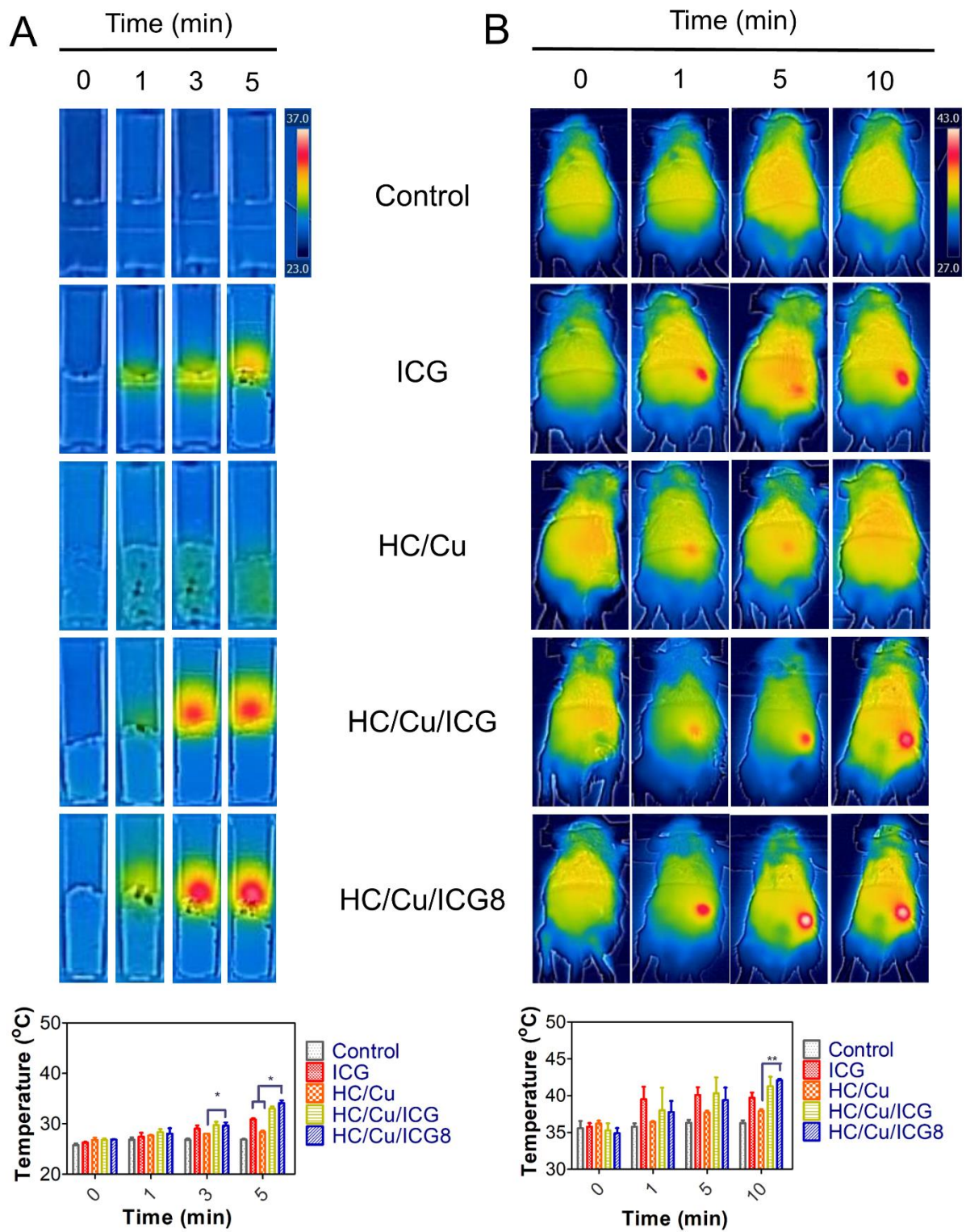
*E-mail address:* [hjcho@kangwon.ac.kr](mailto:hjcho@kangwon.ac.kr) (H.-J. Cho).



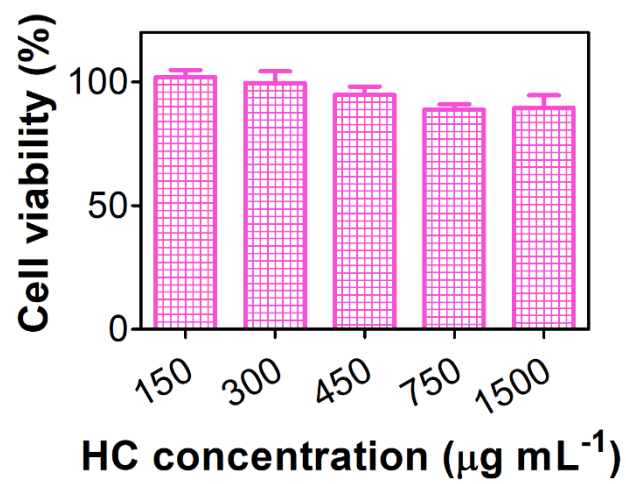
**Fig. S1.** Injectability test of HC/Cu/ICG8 gel with a single syringe.



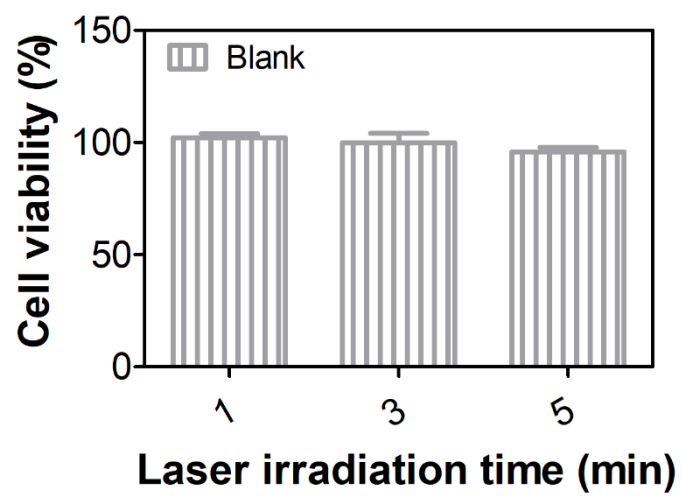
**Fig. S2.** *In vitro* release test of ICG from ICG solution and HC/Cu/ICG8 hydrogel groups. Each point represents mean  $\pm$  SD ( $n \geq 3$ ).



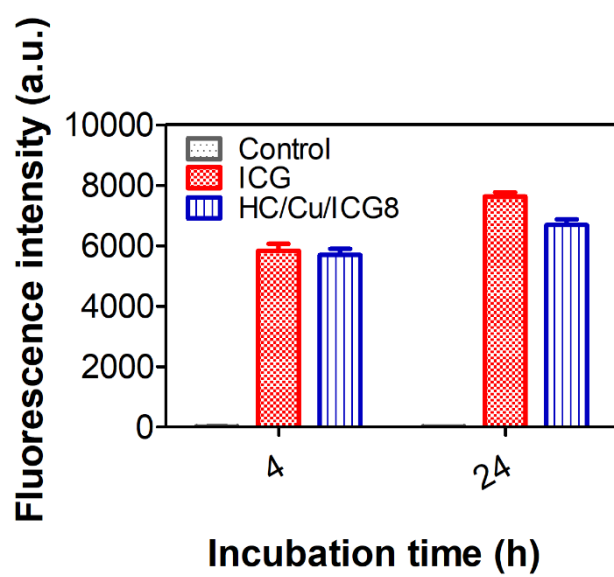
**Fig. S3.** *In vitro* and *in vivo* photothermal efficacy test (at 808 nm wavelength and  $0.3 \text{ W cm}^{-2}$  laser power). Each point represents mean  $\pm$  SD ( $n = 3$ ).



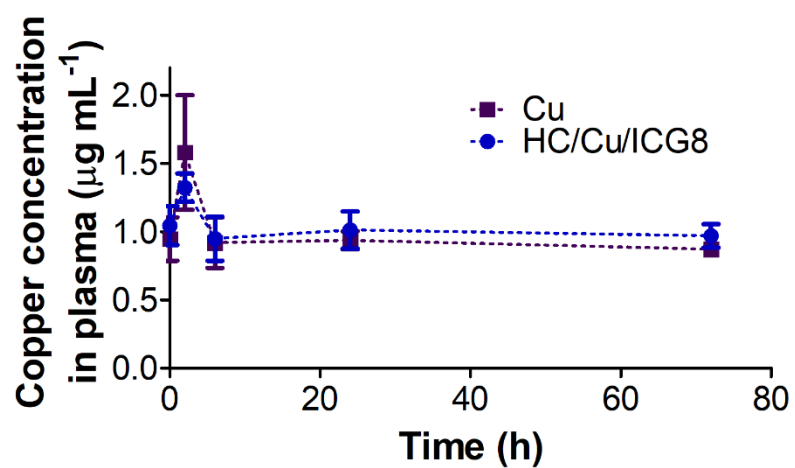
**Fig. S4.** Cytotoxicity of HC in MDA-MB-231 cells measured by MTS-based assay. Each point represents mean  $\pm$  SD ( $n \geq 3$ ).



**Fig. S5.** NIR laser irradiation time-dependent cell viability data in MDA-MB-231 cells. Each point represents mean  $\pm$  SD ( $n = 4$ ).



**Fig. S6.** Cellular accumulation efficiency of ICG from ICG solution and HC/Cu/ICG8 groups in MDA-MB-231 cells. Each point represents mean  $\pm$  SD ( $n = 3$ ).



**Fig. S7.** Copper concentration profiles in plasma following subcutaneous injection of Cu or HC/Cu/ICG8. Each point represents mean  $\pm$  SD ( $n = 4$ ).