Electronic Supplementary Information (ESI)

of

Carrier free photodynamic oxidizer for enhanced tumor therapy by redox homeostasis disruption

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Fig. S1. Standard curves of (A) Nap and (B) Pyro by using HPLC and UV-vis spectrum.



Fig. S2. Drug release curve of Pyro by detecting the fluorescence of released Pyro at

scheduled time (n=2).



Fig. S3. Flow cytometry analysis of 4T1 cells after treatment with Pyro or PyroNap

for 1, 3 and 6 h (n=3).



Fig. S4. The quantitative analysis of DCF fluorescence in 4T1 cells after treatment with Nap, Pyro, PyroNap in the presence or absence of light. **P < 0.01 and ***P < 0.01

0.001 were tested *via* a student's t-test (n=3).



Fig. S5. The quantitative analysis of PI fluorescence in 4T1 cells after treatment with Nap, Pyro, PyroNap in the absence or presence of light. **P < 0.01 and ***P < 0.001 were tested *via* a student's t-test (n=3).



Fig. S6. The quantitative analysis of Tunel immunofluorescence in 4T1 tumor tissues after treatment with Nap, Pyro, PyroNap in the absence or presence of light on the

14th day. ***P < 0.001 was tested *via* a student's t-test (n=3).