Supporting information

A brightly red emissive AIEgen and its antibody conjugated nanoparticles for cancer cell targeting imaging

Huifang Su, [a #] Ziwei Deng, [b #] Yanling Liu, [b] Yun Zhao, [b] Hongjian Liu, [*a] Zheng Zhao [*b] and Ben Zhong Tang [*b]

[a] Department of Orthopaedic Surgery, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, Henan Province, 450052, PR China.

[b] School of Science and Engineering, Shenzhen Institute of Aggregate Science and Technology, The Chinese University of Hong Kong, Shenzhen, Guangdong 518172, China.

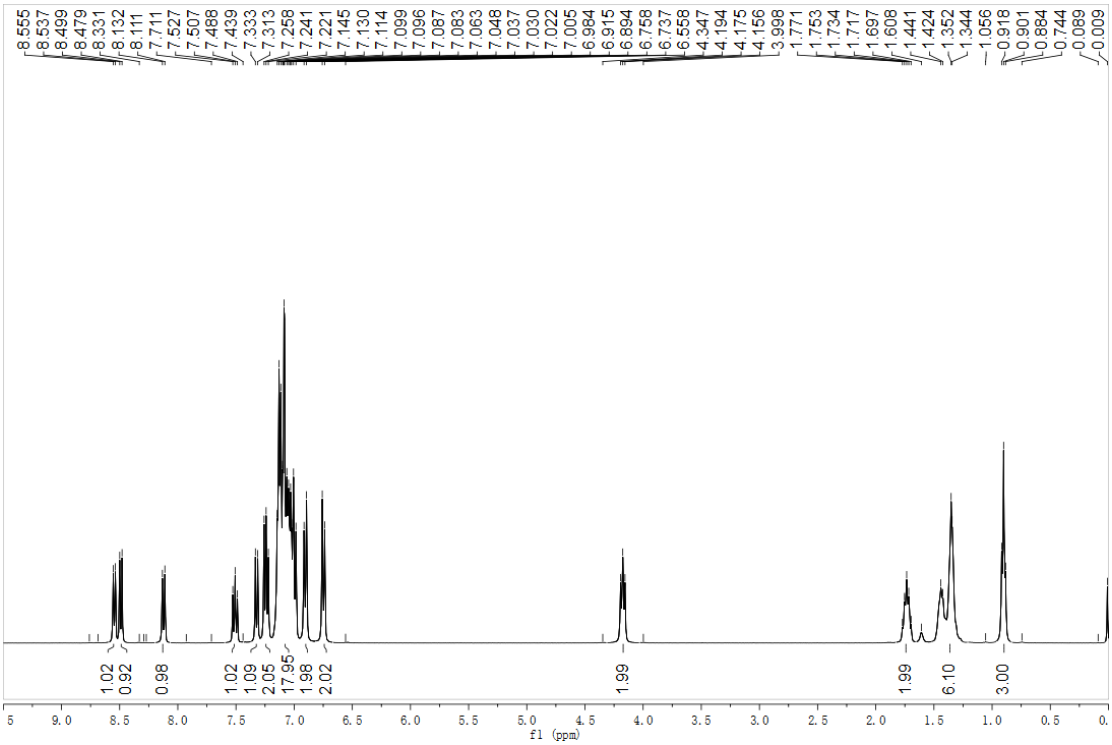

Figure S1. ^{1}H NMR spectrum of TPENI in $CDCl_3$.

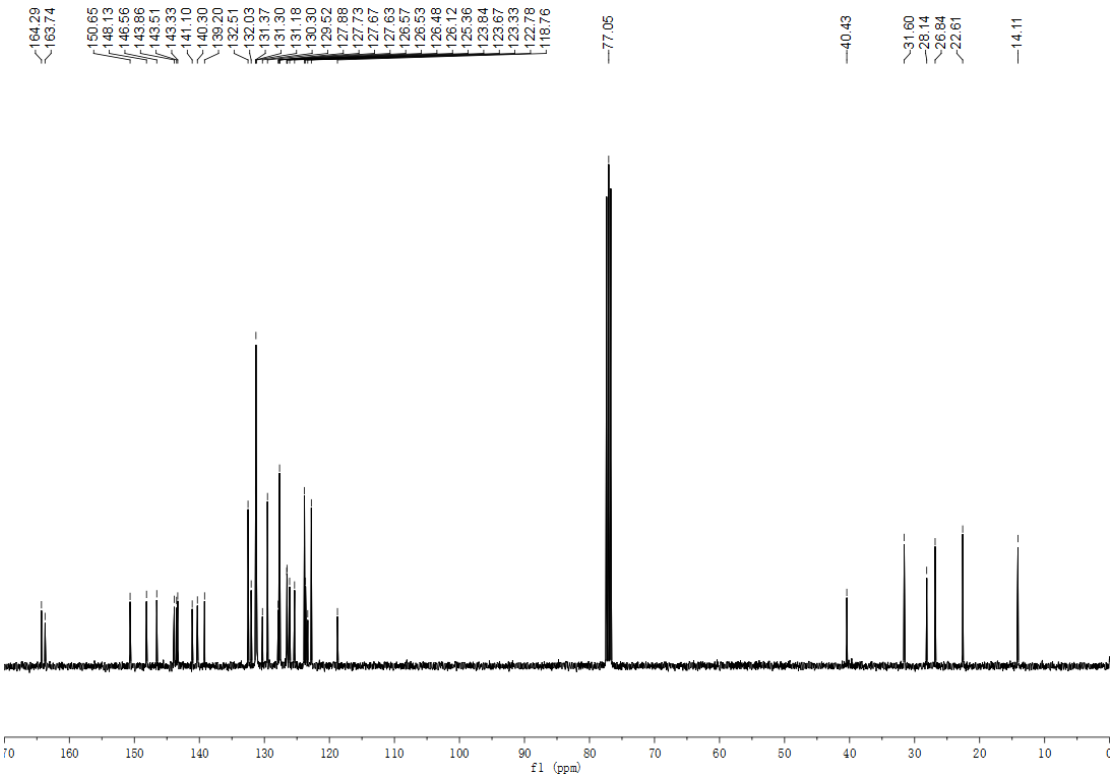

Figure S2. ^{13}C NMR spectrum of TPENI in $CDCl_3$.

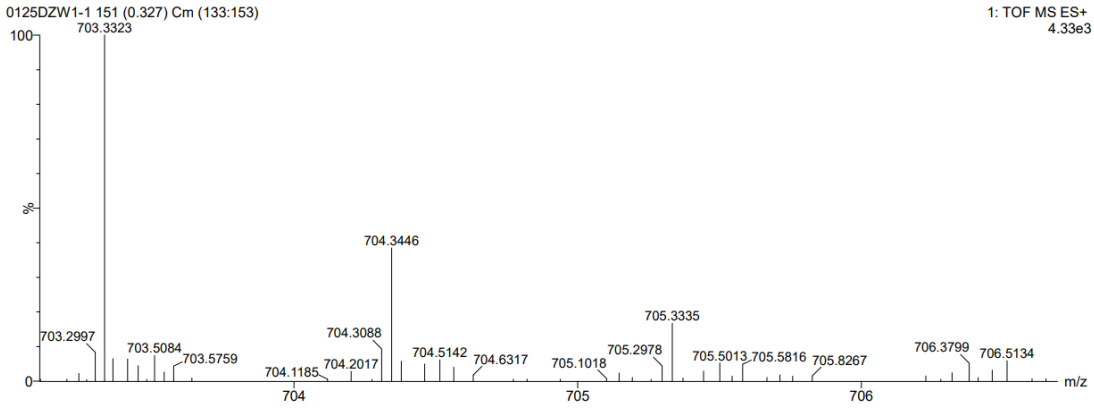

Figure S3. High resolution mass spectrum of TPENI by MALDI-TOF.

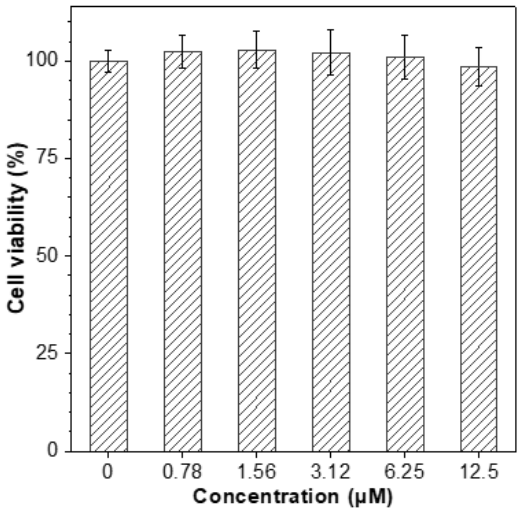

Figure S4. Cytotoxicity of human normal lung cells (HLF).

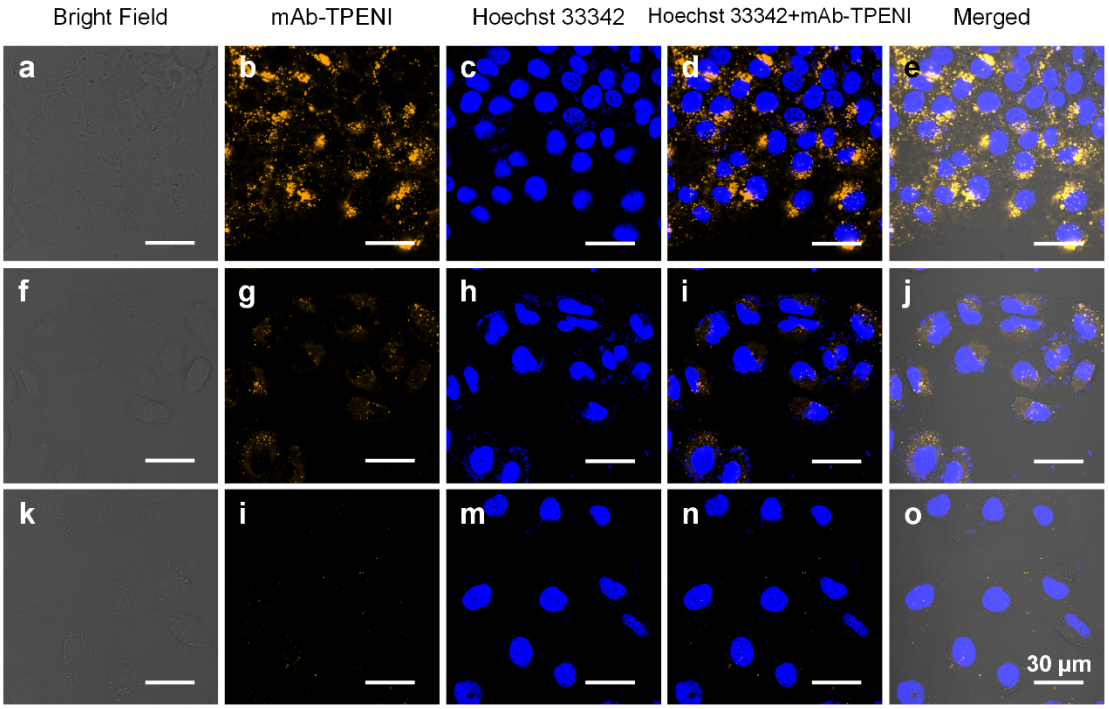

Figure S5. Confocal images of different lung cancer cells of different EGFR expressions after incubation with mAb-TPENI NPs. (a - e) HCC827, (f - j) A549, (k - o) H23.

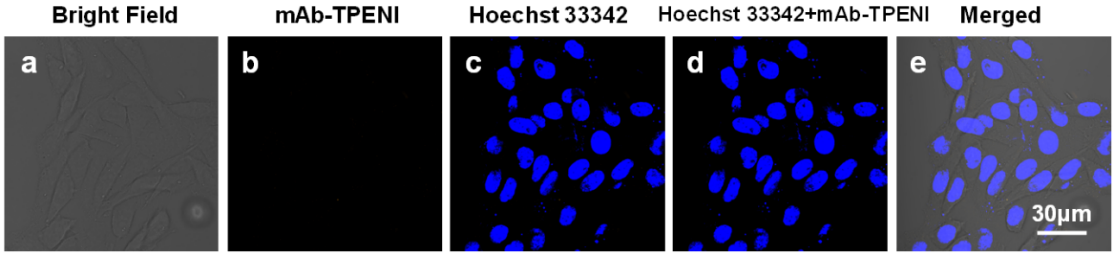

Figure S6. Confocal images of HLF cells after incubation with mAb-TPENI NPs.

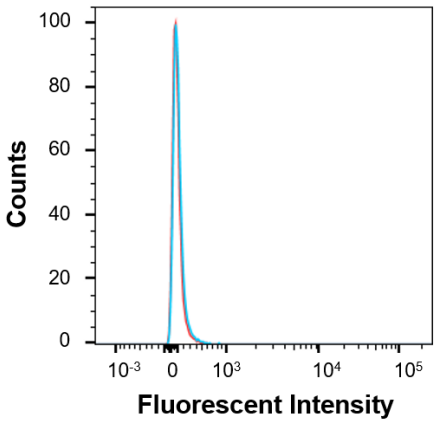

Figure S7. Flow cytometry histograms of HLF cells.

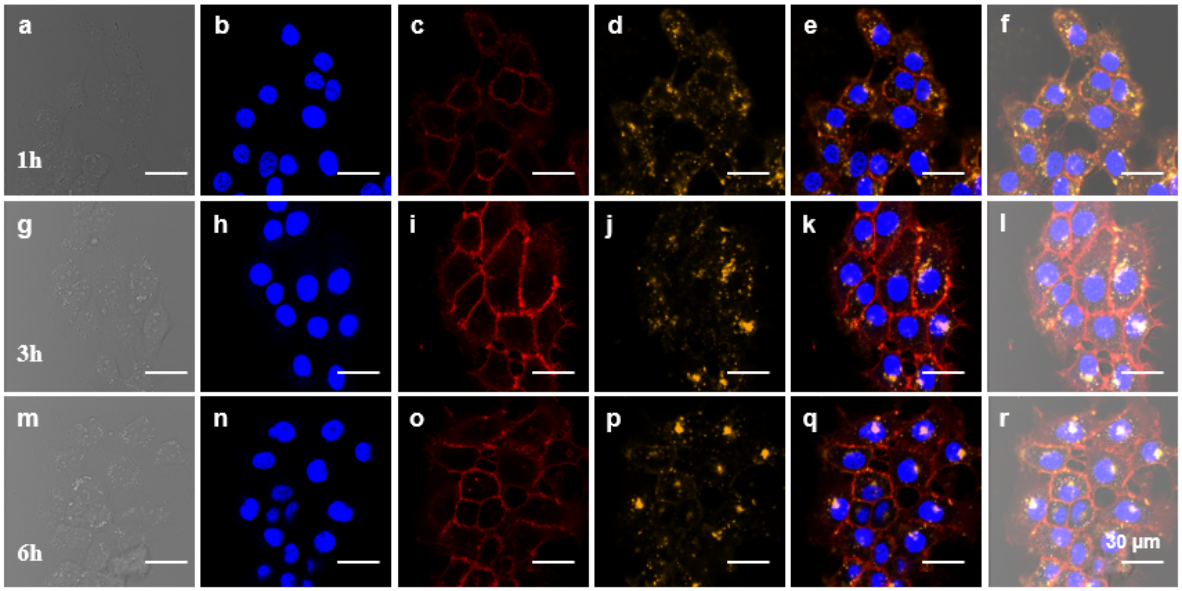

Figure S8. Confocal images of HCC827 cells incubated with mAb-TPENI NPs as time increasing. (a - f) for 1 h. (g - i) for 3h. and (m - r) for 6 h. (a, g, m) Bright field. (b, h, n) Hoechst 33342. (c, i, o) Cell Mask Deep red. (d, j, p) Fluorescence image of mAb-TPENI NPs. (e, k, q) Merged images of the former three channels. (f, l, r) Merged images of all former channels of each time, respectively.

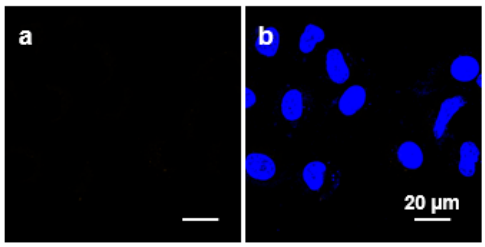

Figure S9. Confocal images of HCC827 cells incubated with antibody followed by mAb-TPENI NPs for 6 h.

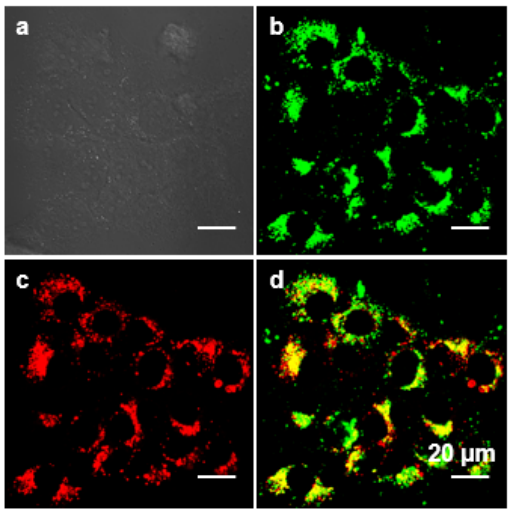

Figure S10. Colocalization test of mAb-TPENI NPs and LysoTracker Deep Red. (a) Bright field. (b) mAb-TPENI NPs. (c) LysoTracker Deep Red. (d) Merged image of a-c.

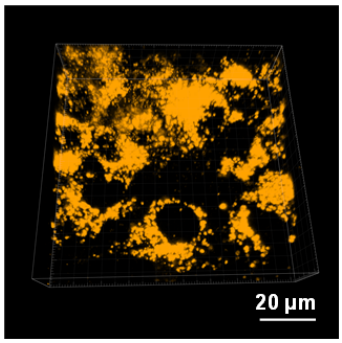

Figure S11. 3D reconstruction of HCC827 cells after staining with mAb-TPENI NPs for 6 h.