Supporting Information

Dual-responsive ultrathin 1T phase niobium telluride nanosheets based delivery systems for enhanced chemophotothermal therapy

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Supporting Figure



Fig. S1. The TEM image of NbTe₂ after 20 times near infrared irradiation.



Fig. S2. UV-vis absorbance spectra of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB dispersions.



Fig. S3. Zeta potential of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB dispersions.



Fig. S4. FT-IR spectra of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB.



Fig. S5. The loading capacity of ISRIB onto NbTe₂/PEG nanosheets (50 μ g/mL) at various initial ISRIB concentrations (200, 250, 300 and 500 μ g/mL)



Fig. S6. The ISRIB released from NbTe₂/PEG@ISRIB at pH 5.0 and 7.4 with or without 808 nm irradiation (1.5 W cm⁻²).



Fig. S7. UV-vis-NIR absorbance spectra of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB dispersions.



Fig. S8. The stability of NbTe₂/PEG in distilled water, saline, PBS, and DMEM at room temperature.



Fig. S9. The stability of NbTe₂/PEG@ISRIB in distilled water, saline, PBS, and DMEM at room temperature.



Fig. S10. The temperature elevating curves of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB dispersions at same concentrations (100 μ g/mL) under NIR irradiation (1.5 W/cm²).



Fig. S11. Raman spectra of NbTe₂, NbTe₂/PEG and NbTe₂/PEG@ISRIB dispersions.



Fig. S12. Fluorescence profile curves (Lysosome) of the co-localization images. Lysosome Image J is used for subcellular localization analysis.



Fig. S13. Fluorescence profile curves (Mitochondrion) of the co-localization images. Image J is used for subcellular localization analysis.



Fig. S14. Fluorescence profile curves (Endoplamic reticulum) of the co-localization images. Image J is used for subcellular localization analysis.



Fig. S15. CCK-8 assay of the cell viabilities of HepG2 cells with different treatments (Control, ISRIB, NbTe₂/PEG and NbTe₂/PEG@ISRIB). The concentrations of NbTe₂/PEG and ISRIB are 100 μ g/mL and 5 μ g/mL, respectively.



Fig. S16. The temperature elevating curves of liver tumor-bearing mice injected with PBS and NbTe₂/PEG@ISRIB under 808 nm laser irradiation (1.5 W/cm², 6 min).