## **Supplementary Information**

## Hydrothermal synthesis of defective TiO<sub>2</sub> nanoparticles for longwavelength visible light-photocatalytic killing of cancer cells

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Figure S1. UV-visible diffuse reflectance absorption spectra of *d*-TiO<sub>2</sub> NPs obtained by hydrothermal reaction at different temperatures.



Figure S2. Surface charge or zeta potential of d-TiO<sub>2</sub> NPs (A) and P25 TiO<sub>2</sub> (B) were measured in deionized water at pH 7.0 by laser Doppler velocimetry (LDV).



Figure S3. Size measurements were performed with d-TiO<sub>2</sub> NPs (A) and P25 TiO<sub>2</sub> (B) in deionized water at pH 7.0 by dynamic light scattering (DLS).