Supporting Information

Isoquinolinium-Based Photosensitizers with Aggregation-Induced Emission Characteristics for Highly Efficient Photodynamic Combat of Viruses

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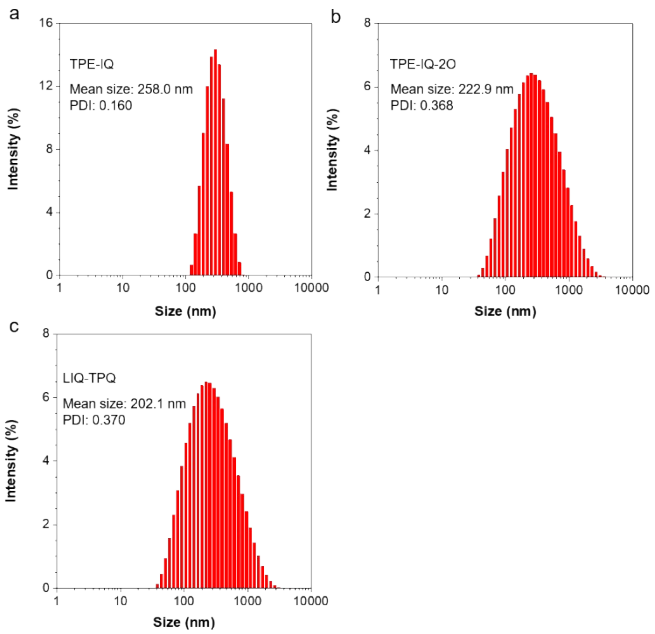

Figure S1. Size distribution of TPE-IQ, TPE-IQ-2O and LIQ-TPE in the mixture of DMSO/PBS with 0.2% DMSO content.

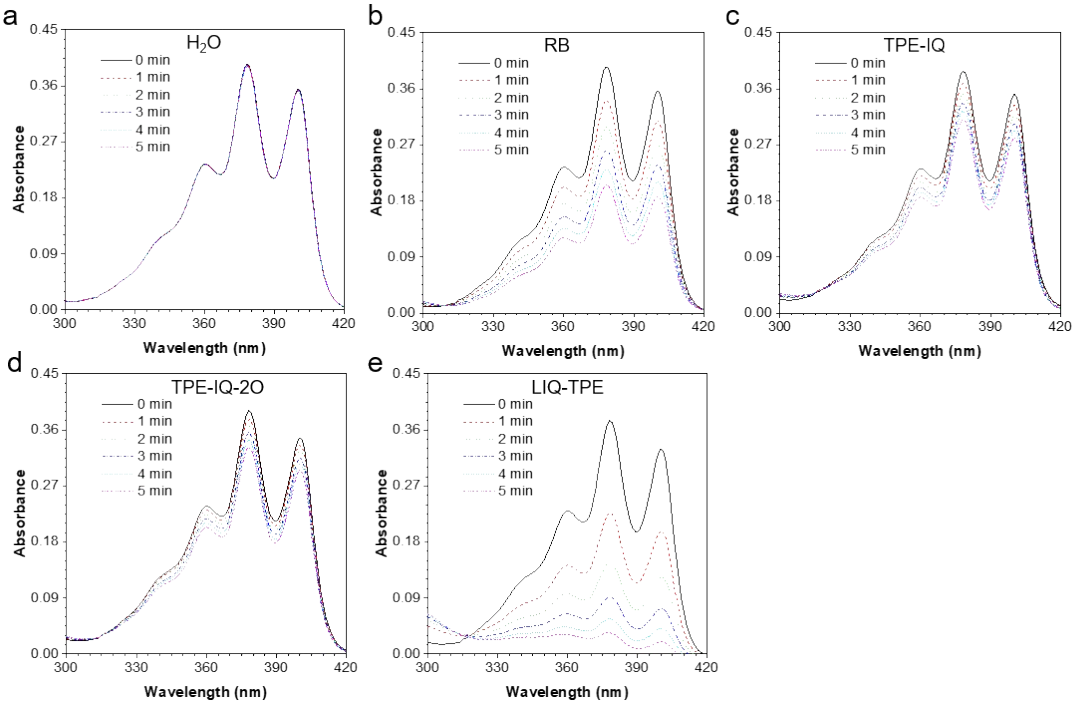

Figure S2. $^1O_2$ generation efficiency of isoquinolinium-based PSs (2.5 μM) upon white-light irradiation. UV/Vis spectra of ABDA (50 mM, a) in the presence of (b) RB, (c) TPE-IQ, (d) TPE-IQ-2O, and (e) LIQ-TPE under white-light irradiation (20 mW/cm^2).

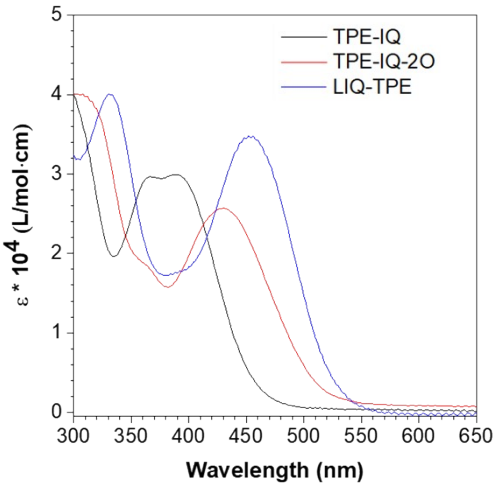

Figure S3. Molar absorbance of TPE-IQ, TPE-IQ-2O, LIQ-TPE in DMSO.

Table S1. The qPCR primers used for detecting the RNA of FMDV, HCoV-OC43 and HCoV-229E.

qPCR primers	Fp（5'to 3'）	Rp（5'to 3'）
FMDV(3D)	GAACACATTCTTTACACCAGGAT	CATATCTTTGCCAATCAACATCAG
HCoV-OC43	AGCGTGGTTTTCTTGACAGG	TCTCAACAATGCGGTGTCCA
HCoV-229E	GGCAAACGGGTGGATTTGTC	CGCCTAACACCGTAACCTGT
GAPDH	CCACTCCTCCACCTTTGAC	ACCCTGTTGCTGTAGCCA

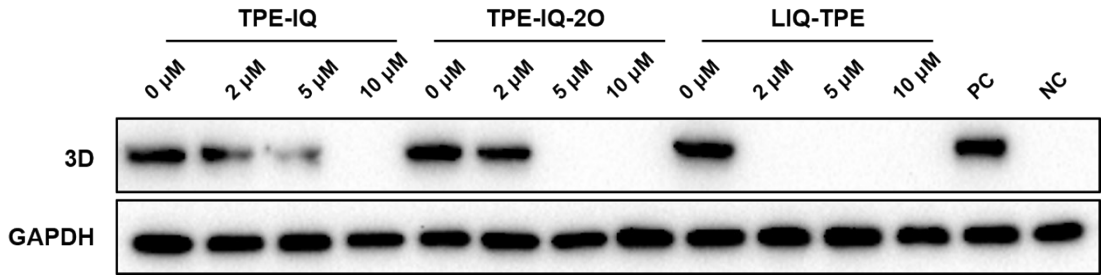

Figure S4. Western blot analysis of FMDV 3D protein and GAPDH in BHK-21 cells. Prior to incubation with BHK-21 cells, FMDV was treated with different concentrations of TPE-IQ, TPE-IQ-2O or LIQ-TPE (0, 2.0, 5.0, and 10.0 μM) for 20 min and then irradiated with white light for 20 min. PC: positive control, the BHK-21 cells were infected with FMDV without any treatment. NC: negative control, the host cells were not infected with FMDV.

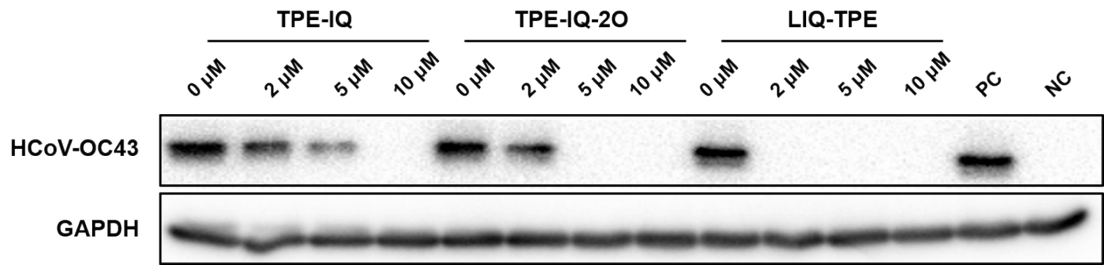

Figure S5. Western blot analysis of HCoV-OC43 N protein and GAPDH in MRC-5 cells. Prior to incubation with MRC-5 cells, HCoV-OC43 was treated with different concentrations of TPE-IQ, TPE-IQ-2O or LIQ-TPE (0, 2.0, 5.0, and 10.0 μM) for 20 min and then irradiated with white light for 20 min. PC: positive control, the MRC-5 cells were infected with HCoV-OC43 without any treatment. NC: negative control, the host cells were not infected with HCoV-OC43.

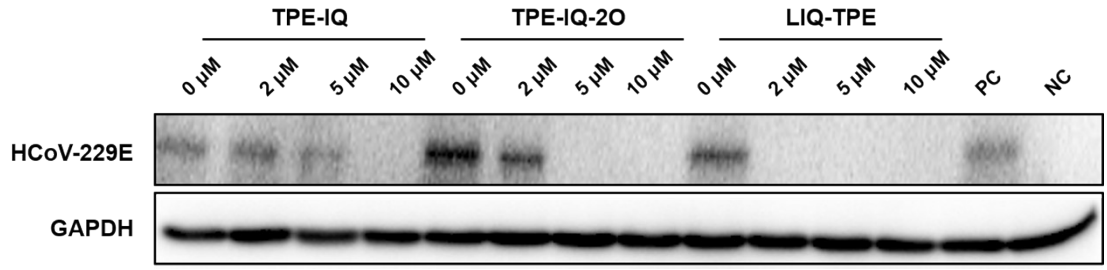

Figure S6. Western blot analysis of HCoV-229E spike glycoprotein(S) and GAPDH in MRC-5 cells. Prior to incubation with MRC-5 cells, HCoV-229E was treated with different concentrations of TPE-IQ, TPE-IQ-2O or LIQ-TPE (0, 2.0, 5.0, and 10.0 μM) for 20 min and then irradiated with white light for 20 min. PC: positive control, the MRC-5 cells were infected with HCoV-229E without any treatment. NC: negative control, the host cells were not infected with HCoV-229E.