Electronic Supplementary Material (ESI) for Materials Chemistry Frontiers.

Observing Hepatic Steatosis with a Commercially Viable Two-Photon Fluorogenic Probe

Jingjing Han,[a#] Hyo Won Lee,[b#] Yahui Chen,[ac] Haidong Li,[d*] Hwan Myung Kim,[b*] and Juyoung Yoon[a*]

[a] Department of Chemistry and Nanoscience, Ewha Womans University, Seoul 03760, Korea. E-mail: jyoon@ewha.ac.kr

[b] Department of Energy Systems Research and Department of Chemistry, Ajou University, Suwon, 16499, Korea. E-mail: kimhm@ajou.ac.kr

[c] New and Renewable Energy Research Center, Ewha Womans University, Seoul 03760, Korea.

[d] School of Bioengineering, Dalian University of Technology Dalian 116024, P.R. China, E-mail: lihd@dlut.edu.cn

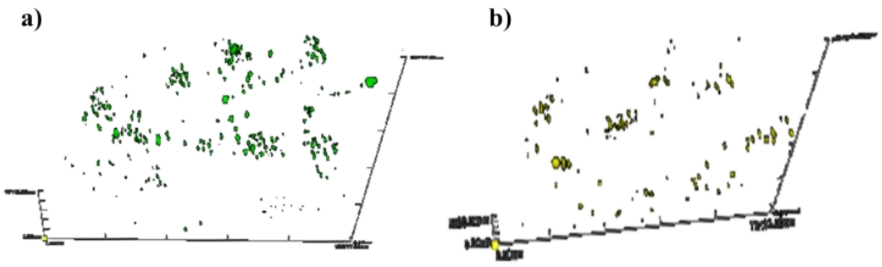

Figure S1. 3D Fluorescence images of live HeLa cells for a) DTPC (2 μM) and b) DQVTA (2 μM) for three hours.

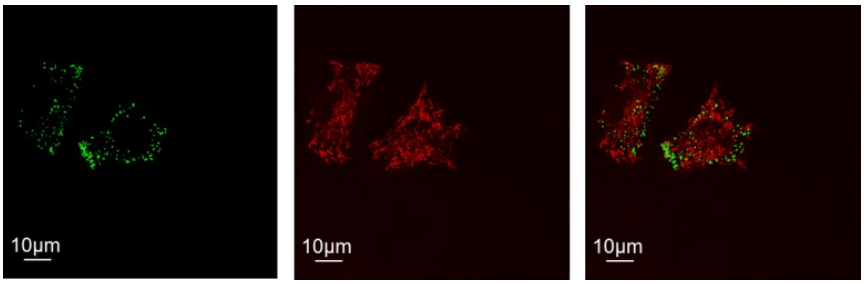

Figure S2. Co-localization images of living HeLa cells after incubation with DTPC (3 μM, 3h) and Mito-tracker deep red (0.5 μM, 0.5 h). λ_{ex} = 405 nm, λ_{em} = 490-590 nm for DTPC, λ_{ex} = 635 nm, λ_{em} = 655-750 nm for Mitotracker deep red.

Table S1 Two-photon absorption properties of DTPC and DQVTA in different solvent.

Solvents (E_T^N)	**DTPC**		**DQVTA**	
	$\Phi\delta$ (GM)	**λ_{max} (nm)**	**$\Phi\delta$ (GM)**	**λ_{max} (nm)**
Toluene (0.099)	72.7	760	7.8	840
THF (0.207)	42.7	760	9.4	840
DMSO (0.444)	13.9	760	8.7	840
Buffer (1.000)	20.1	770	4.6	750