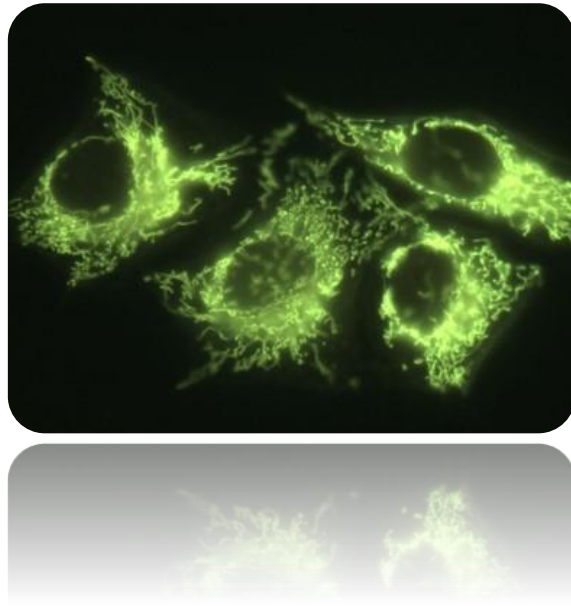


Product Specification

AIE™ Cancer Yellow



Product Description

- The product can target and illuminate only the cancer cell mitochondria
- The product has been tested working on
 - ✓ *HeLa*
 - ✓ *Human cervix MCF-7*
 - ✓ *Human breast PC-9*
 - ✓ *Human lung MDA-MB-231*
 - ✓ *Human breast A549*
 - ✓ *Human lung HCC827*
 - ✓ *Human lung HepG2*
 - ✓ *Human liver*
- The product can be excited by 405 nm laser of confocal microscope after co-cultured with cell and the greenish-yellow signal can be collected above 500 nm.
- The product can be used for quick cell imaging as well as fixed localized imaging.
- The product can serve as a photosensitizer to generate reactive oxygen species (ROS) to induce cell apoptosis, which can be used for photodynamic therapy.

Demonstrations

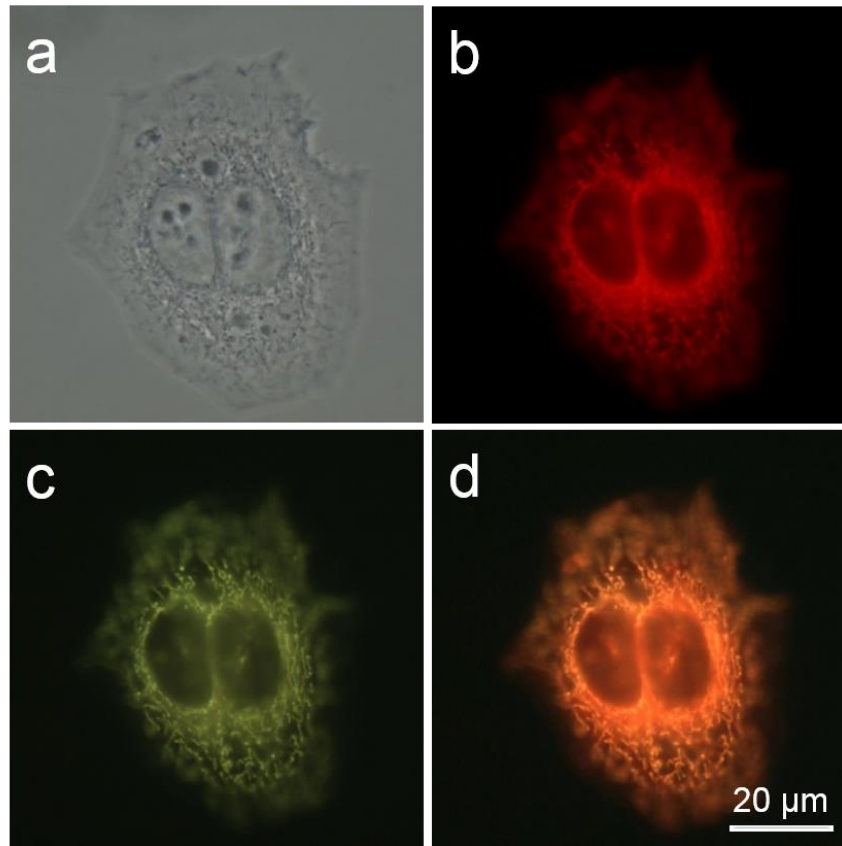


Figure 1: Co-localization imaging of HeLa cells stained with MitoTracker Red and AIE™ Cancer Yellow. (a) Bright-field image and (b and c) fluorescent images of HeLa cells stained with (b) MTR (50 nM) and (c) AIE™ Cancer Yellow (200 nM) for 20 min. (d) Merged image of panel (b) and (c). λ_{ex} : 540–580 nm (MTR) and 400–440 nm (AIE™ Cancer Yellow); scale bar = 20 μm .

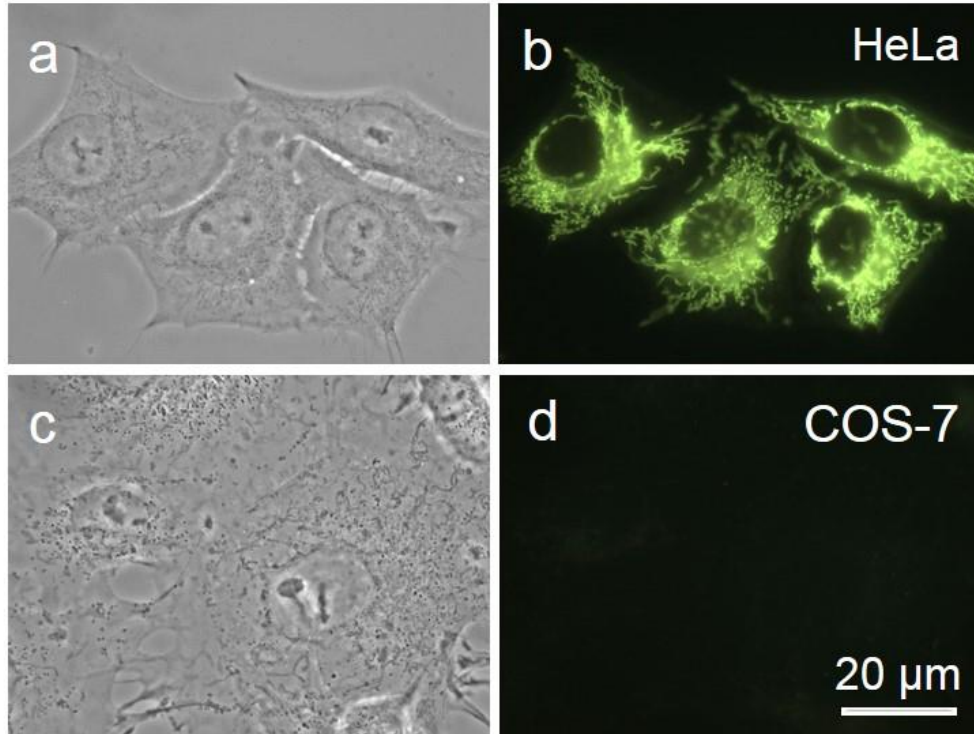


Figure 2: Differentiation of cancerous HeLa cells from normal COS-7 cells by AIE™ Cancer Yellow. (a and c) Bright-field and (b and d) fluorescent images of (a and b) HeLa cells and (c and d) COS-7 cells incubated with 200 nM of AIE™ Cancer Yellow for 20 min.

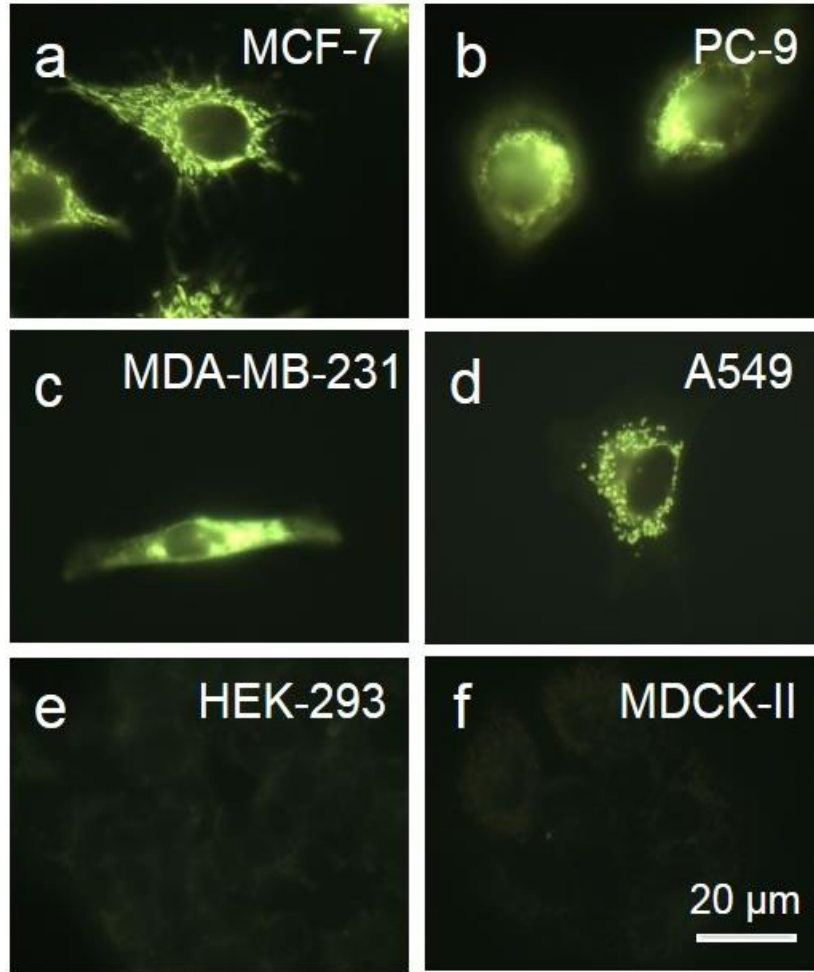


Figure 3: Differentiation of cancer cells from normal cells by AIETM Cancer Yellow. (a-f) Fluorescent images of different (a-d) cancer cells and (e-f) normal cells stained with AIETM Cancer Yellow (200 nM) for 20 min. λ_{ex} : 400-440 nm.

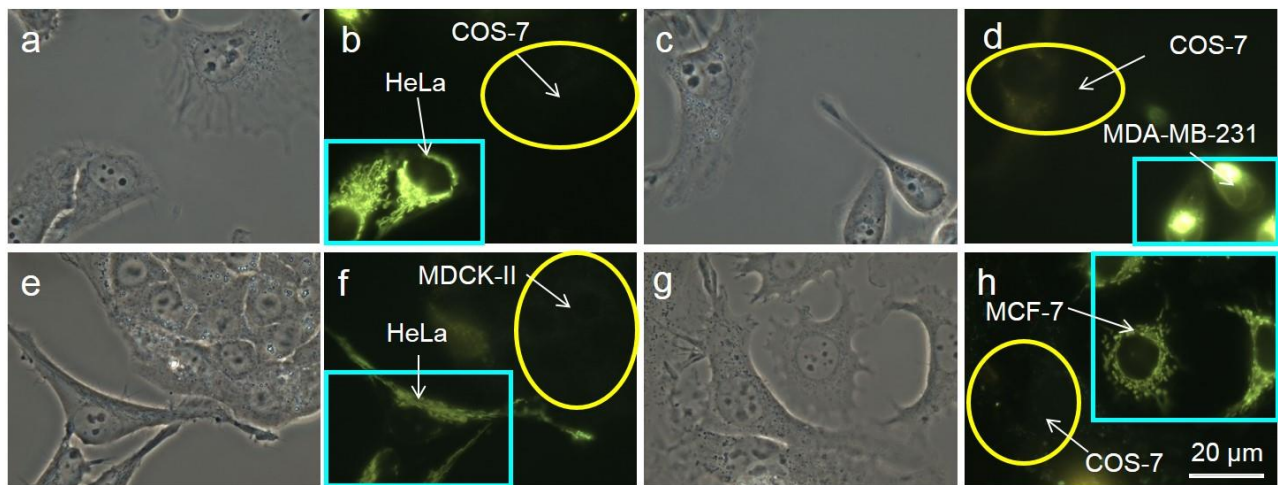


Figure 4: Co-culture different combinations of cancer cell and normal cell in culture medium with AIE™ Cancer Yellow. (a, c, e and g) Bright-field images and (b, d, f and h) corresponding fluorescent images of (a and b) HeLa and COS-7 cells, (c and d) MDA-MB-231 and COS-7 cells, (e and f) HeLa and MDCK-II cells and (g and h) MCF-7 and COS-7 cells incubated in Dulbecco’s Modified Eagle Medium (DMEM) with AIE™ Cancer Yellow. Light blue rectangles represent cancer cells and yellow circles represent normal cells. All the images share the same scale bar: 20 μm.

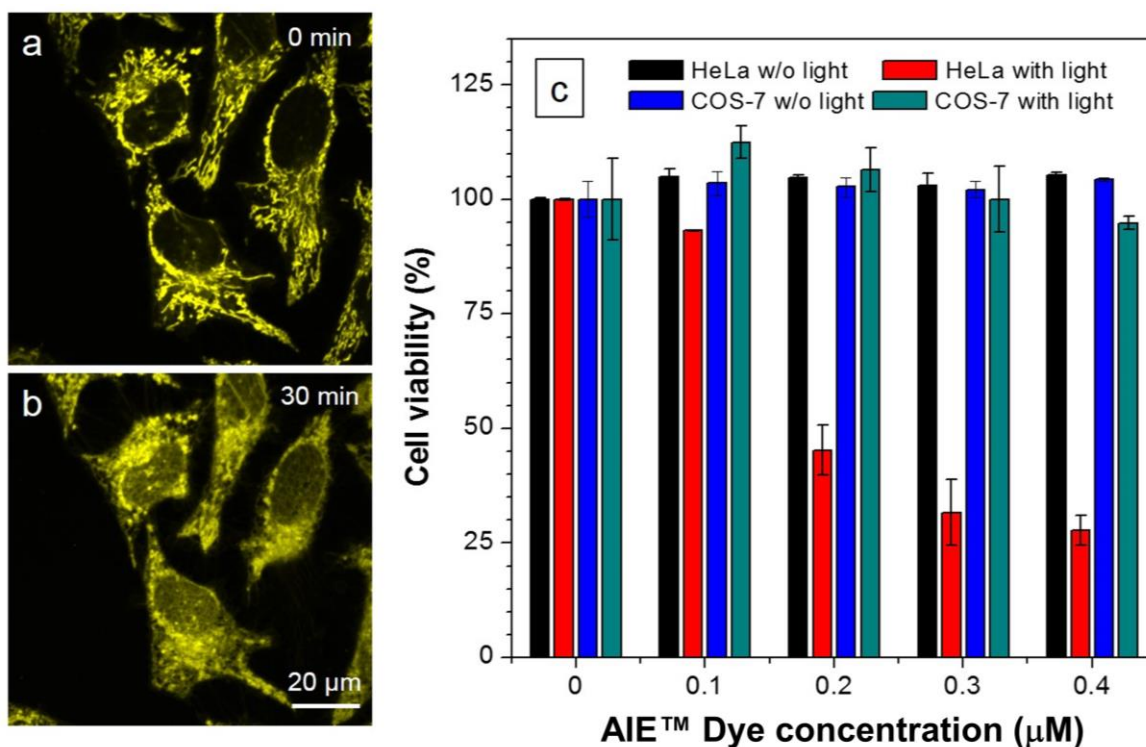


Figure 5: AIE™ Cancer Yellow selectively kills cancer cells through PDT. (a) and (b) Change in mitochondrial morphology before and after white light irradiation. (c) Cell viability of HeLa cells and COS-7 cells stained with different concentrations of AIE™ Cancer Yellow in the absence or presence of white light irradiation.

Recommended storage condition

Store away from sunlight at 2-8 °C

Product parameters

Purpose	Mitochondria staining and induce cell apoptosis
Color:	Orange
Imaging platform:	Fluorescence microscope Confocal microscope
Pack size and quantity:	10 μ mol
Detection method:	Fluorescence
Excitation/ Emission (nm):	430 \pm 20/560 \pm 50
Recommended transport condition:	Room temperature
Product declaration:	Only used for research. Do not apply to any detection procedure.

Product operation method and handbook

[handbook is uploaded with PDF file]; [MSDS handbook]