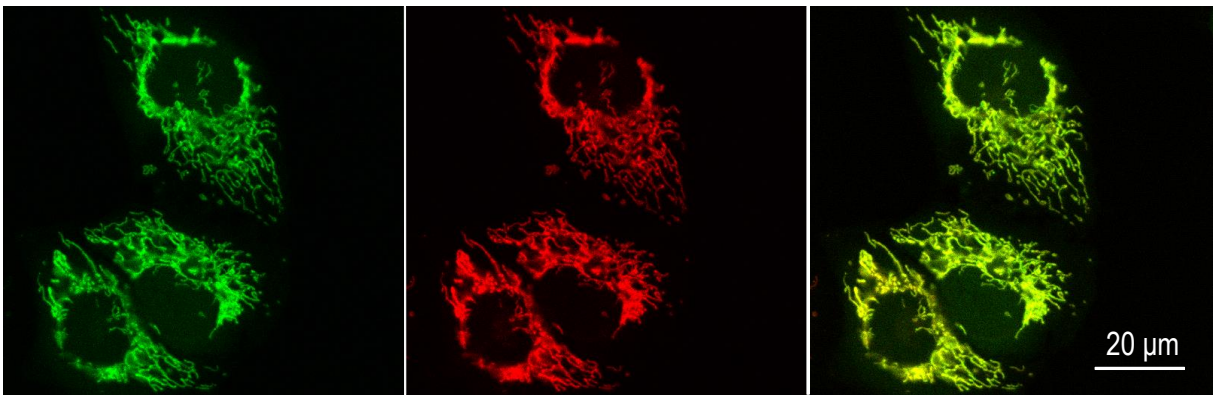
Product Specification

AIE™ Mitochondria Red



Product Description

- This product can selectively stain the mitochondria with red fluorescence.
- The cells co-cultured with the product can be visualized using a fluorescent microscopy at 488nm excitation. Red signals will be received in the 551-638 nm.
- This product is very sensitive to mitochondrial membrane potential. This product has excellently specific response to mitochondria in live cells.
- This product possesses excellent photostability, the fluorescence signal can directly represent the difference in mitochondrial membrane potential. Tracing the change in intracellular mitochondrial membrane potential, this probe could be used for indicating the increased mitochondrial membrane potential in tumor cells for cancer research or the decreased mitochondrial membrane potential in apoptotic cells for drug screening.
- This product can evaluate the sperm vitality.

Demonstrations

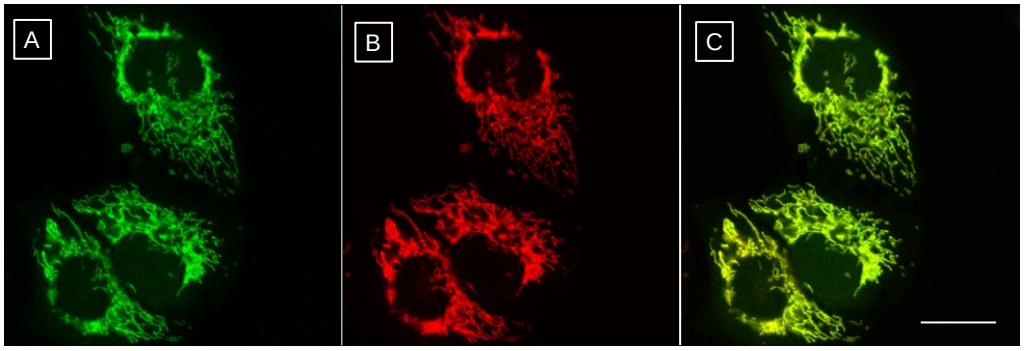


Figure 1. Confocal imaging of HeLa cell stained with (A) CellLight® Mitochondria-GFP, BacMam 2.0 for overnight and (B) AIE™ Mitochondria Red (5 μM) for 45min. (C) panels A and B merged. Scale bar: 20 μm. Excitation: 488 nm; for AIE™ Mitochondria Red, emission: 561-656 nm; for Mitochondria-GFP Probe, emission: 469-555 nm.

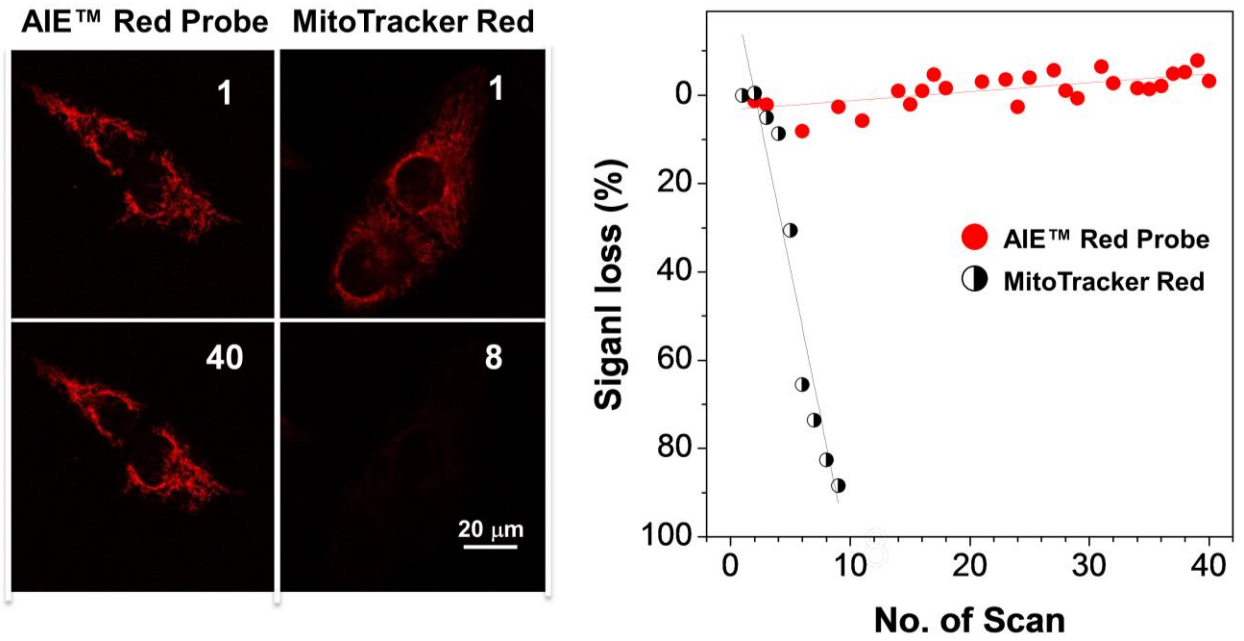


Figure 2. Confocal images of HeLa cells stained with AIE™ Mitochondria Red and MitoTracker Red taken under continuous excitation at 488 nm for 40 scans and 560 nm for 9 scans (scale bar: 20 μm) and the signal loss (%) of fluorescence intensity of AIE™ Mitochondria Red and MitoTracker Red with an increasing number of scans.

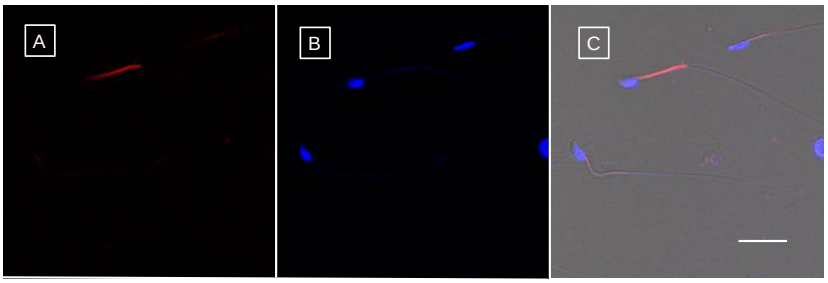


Figure 3. Confocal images of mouse sperm cells stained with (A) AIE™ Mitochondria Red Probe (5 μM) for 1 h and (B) Hoechst 33342 (1 μg/mL) for 10 min; and (C) the merged picture of A, B and the bright field image. Excitation wavelength: 488 nm (for AIE™ Mitochondria Red Probe) and 405 nm (for Hoechst 33342). Scale bar: 20 μm.

Recommended storage condition

Store away from sunlight at 2-8 °C

Product parameters

Purpose	Mitochondria staining
Color:	Red
Imaging platform:	Fluorescence microscopy Laser Scanning Confocal Microscope
Pack size and quantity:	10 μmol
Detection method:	Fluorescence
Excitation/ Emission (nm):	450±50 / 670±50
Recommended transport condition:	Room temperature
Product declaration:	For Research Use Only. Not for use in diagnostic procedures.

Product operation method and handbook

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