

MITO-ID™ RED

GFP-Certified™ Mito-ID™ Red Mitochondrial
Detection Kit

ENZ-51007-500

500 Reactions

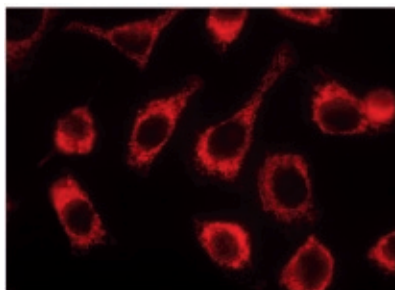
HIGHLIGHT

- Potent **mitochondria-selective dye** suitable for staining live cells, as well as detergent permeabilized and/or aldehyde fixed cells
- Long wavelength red emission is **easily multiplexed with common fluorescent dyes** (coumarin, FITC, cyanine 3) and fluorescent proteins (BFP, CFP, GFP, YFP)
- **Highly resistant to photobleaching** and concentration quenching, ensuring strong, consistent fluorescence signal, even after extended viewing periods
- Highlights mitochondria regardless of the organelle's membrane potential status
- Stringently manufactured, to control and eliminate non-specific assay artifacts

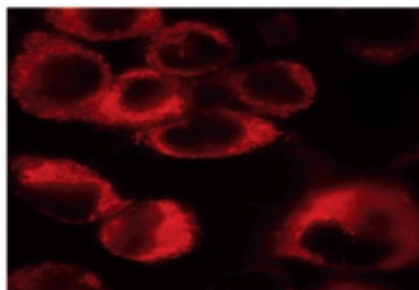
Enzo Life Sciences' GFP-Certified™ Mito-ID™ Red Mitochondrial Detection Kit contains a proprietary membrane-permeable mitochondria-selective dye suitable for use with live, detergent permeabilized, and even aldehyde fixed cells. Unlike conventional dyes, such as DiOC6(3), JC-1, rhodamine 123 and tetramethylrhodamine ethyl ester, the Mito-ID™ Red dye highlights mitochondria regardless of their energetic state. The dye is compatible with most fluorescence detection systems, including conventional and confocal fluorescence microscopes, as well as High Content Screening (HCS) platforms. The kit is useful for assessing mitochondrial morphology changes, estimating mitochondrial mass and co-localizing GFP-tagged proteins to the mitochondrial compartment.

This kit is specifically designed for use with GFP-expressing cell lines, as well as cells expressing blue, cyan or yellow fluorescent proteins (BFPs, CFPs, YFPs). Additionally, the kit is suitable for use with live or post-fixed cells in conjunction with fluorescent probes, such as labeled antibodies, or other fluorescent conjugates displaying similar spectral properties as fluorescein, coumarin or cyanine 3. A nuclear counterstain (Hoechst 33342) is provided to highlight this organelle as well.

Mito-ID™ Red in assay buffer



Mito-ID™ Red with 10µM Valinomycin



Mito-ID™ Red with 50µM CCCP

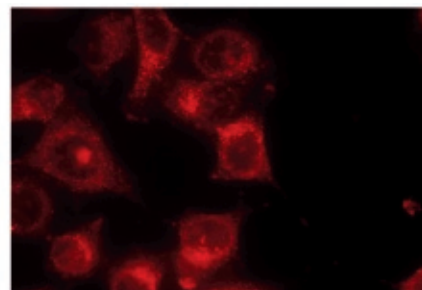


FIGURE 1: The Mito-ID™ Red dye selectively stains mitochondria of living cells and is relatively insensitive to mitochondrial membrane potential uncouplers of phosphorylation, such as CCCP (carbonyl cyanide 3-chlorophenylhydrazone) as well as ion-channel perturbing drugs, such as valinomycin.

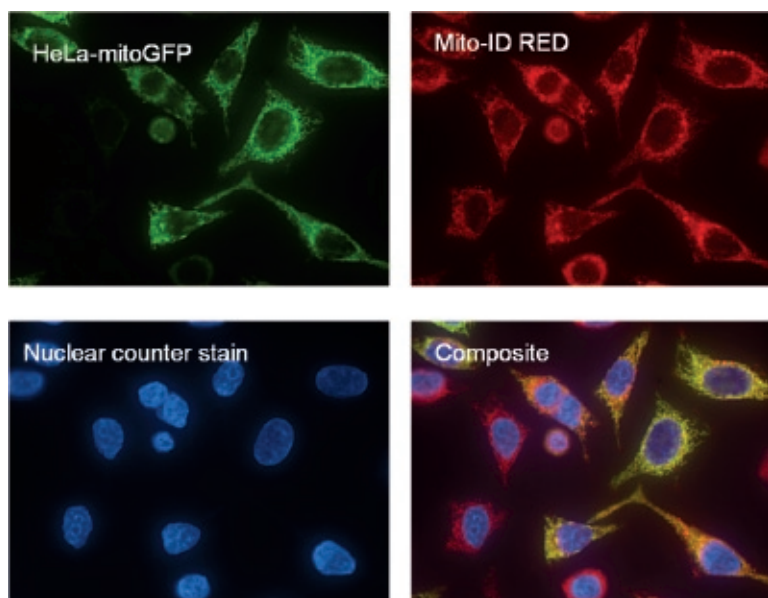


FIGURE 2: HeLa-TurboGreen-mitochondria cells (HeLa-mitoGFP, MarinPharm GmbH, Luckenwalde, Germany) stained with Mito-ID™ Red and Hoechst 33342 (blue) dyes. Mito-ID™ Red co-localizes with the EGFP-cytochrome C oxidase signal (yellow signal), demonstrating selectivity for mitochondria. Note that mitochondria in cells no longer expressing the GFP-tagged protein appear red in the composite image.

Related Products

Product	Prod. No.	Size
GFP-Certified™ Lyso-ID™ Red Lysosomal Detection Kit	ENZ-51005-500	500 Reactions
Total Nuclear-ID™ Green/Red Nucleolar/ Nuclear Detection Kit	ENZ-51006-500	500 Reactions
DiOC6(3) iodide (Ultra Pure)	ENZ-52303	100 mg
JC-1 (Ultra Pure)	ENZ-52304	5 mg
JC-10 [Enhanced IC-1] (Ultra Pure)	ENZ-52305	5 mg
Rhodamine 123 (Ultra Pure)	ENZ-52307	25 mg
TMRE (Ultra Pure)	ENZ-52309	25 mg

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