

Product datasheet

Mitochondrial Staining Kit - NIR Fluorescence - Cytopainter ab176747

1 References 2 Images

Overview

Product name	Mitochondrial Staining Kit - NIR Fluorescence - Cytopainter
Sample type	Adherent cells, Suspension cells
Assay type	Cell-based (qualitative)
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>Mitochondrial Staining Kit - NIR Fluorescence Cytopainter (ab176747) is designed to label mitochondria in live cells with red fluorescence. The kit uses our proprietary dye that selectively accumulates in mitochondria probably via the mitochondrial membrane potential gradient. The red fluorescent mitochondrial stain used in the kit has Ex/Em = 640/660 nm (Cy5 filter-compatible). The mitochondrial indicator, a hydrophobic compound, easily permeates intact live cells and trapped in mitochondria after it gets into cells. This fluorescent mitochondrial indicator is retained in mitochondria for a long time since it carries a cell-retaining group. This key feature significantly increases the staining efficiency.</p>

The kit can be readily adapted for many different types of fluorescence platforms, such as microplate assays, immunocytochemistry and flow cytometry. It is useful for a variety of studies, including cell adhesion, chemotaxis, multidrug resistance, cell viability, apoptosis and cytotoxicity. The kit provides all the essential components and can be used for both proliferating and non-proliferating cells.

Abcam's fluorescence imaging kits are a set of fluorescence imaging tools for labeling sub-cellular organelles such as membranes, lysosomes, mitochondria, nuclei, etc. The selective labeling of live cell compartments provides a powerful method for studying cellular events in a spatial and temporal context.

Review other dyes and kits for [mitochondrial staining](#), or the [live cell staining fluorescent dyes guide](#)

Notes	<p>Mitochondria are membrane-enclosed organelles found in most eukaryotic cells. Mitochondria are sometimes described as "cellular power plants" because they generate most of the cellular supply of ATP. In addition to supplying cellular energy, mitochondria are involved in a range of other processes, such as signalling, cellular differentiation, cell death, as well as the control of the cell cycle and cell growth. Mitochondria have been implicated in several human diseases, including mitochondrial disorders and cardiac dysfunction, and may play a role in the aging process.</p>
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Although most of a cellular DNA is contained in the cell nucleus, the mitochondrion has its own independent genome.

Platform Fluorescence microscope

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	500 tests
Live Cell Staining Buffer	1 x 50ml
MitoNIR Indicator	1 x 100µl

Images

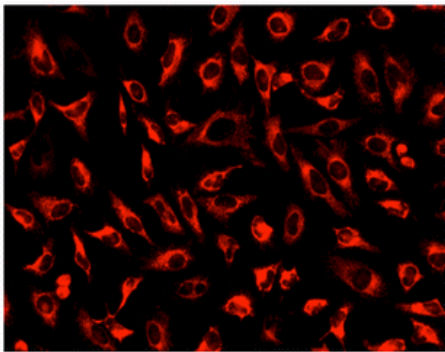
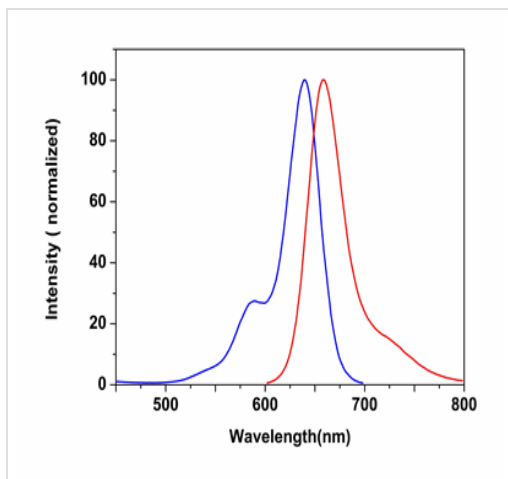


Image of HeLa cells stained with CytoPainter Mitochondrial Staining Kit – NIR Fluorescence (ab176747)

CytoPainter Mitochondrial Staining Kit – NIR Fluorescence (ab176747). HeLa cells stained with Abcam's CytoPainter Mitochondrial Staining Kit – NIR Fluorescence in a Costar black 96-well plate.

CytoPainter Mitochondrial Staining Kit - NIR Fluorescence
(ab176747). Excitation and Emission spectra.



Excitation and Emission spectra of CytoPainter
Mitochondrial Staining Kit - NIR Fluorescence
(ab176747)

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