# abcam

## Product datasheet

# Mitochondrial Staining Kit - Green Fluorescence - Cytopainter abl 12143

4 References 2 Images

Overview

Product name Mitochondrial Staining Kit - Green Fluorescence - Cytopainter

Sample type Adherent cells, Suspension cells

Assay type Cell-based

Product overview Mitochondrial Staining Kit - Green Fluorescence | Cytopainter (ab112143) is designed to label

mitochondria in live cells with green fluorescence at Ex/Em = 490/520 nm. The kit uses a proprietary dye that selectively accumulates in mitochondria probably via the mitochondrial membrane potential gradient. The mitochondrial indicator, a hydrophobic compound, easily permeates intact live cells and becomes trapped in mitochondria after it gets into cells. The 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.

Abcam's fluorescence imaging kits are a set of fluorescence imaging tools for labeling subcellular organelles such as lysosomes, mitochondria, and actin filaments. The selective staining of cell compartments provides a powerful method for studying cellular events in a spatial and temporal context.

The dye will stain live cells but is not well-retained after fixation.

Review other dyes and kits for  $\underline{\text{mitochondrial staining}}$ , or the  $\underline{\text{live cell staining fluorescent}}$ 

dyes guide

**Notes**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. Although most of a cellular DNA is contained in the cell nucleus, the mitochondrion has its own

independent genome.

**Platform** Fluorescence microscope

**Properties** 

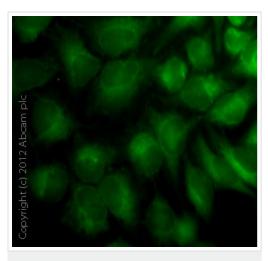
1

### Storage instructions

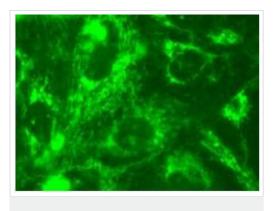
### Store at -20°C. Please refer to protocols.

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

#### **Images**



Immunocytochemistry/ Immunofluorescence -CytoPainter Mitochondrial Staining Kit - Green Fluorescence (ab112143) CytoPainter Mitochondrial Staining Kit - Green Fluorescence (ab112143). HeLa cells were incubated for 60 minutes at 37C with ab112143. The staining solution was replaced with 4%PFA for 10 minutes before a final wash in PBS prior to mounting slides. Images obtained with an Olympus BX61 microscope using a FITC filter (495/519 nm) - 1750ms exposure.



Immunocytochemistry/ Immunofluorescence -CytoPainter Mitochondrial Staining Kit - Green Fluorescence (ab112143) CytoPainter Mitochondrial Staining Kit - Green Fluorescence (ab112143). Image of U2OS cells stained with ab112143

CytoPainter Mitochondrial Staining Kit - Green Fluorescence in a black 96-well plate.

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