



NEW
fluorophore

Cell permeable,
no pre-treatment
necessary

Compatible
with all standard
imaging
instruments

No need to
wash cells

Small,
neutral
fluorophore

Water
soluble

Spontaneous
fluorescence
on entry
to cells

Ideal for
multiplexing

No
fluorescent
background

Long
Stokes'
shift

Non
toxic

Intracellular
pH
indicator

Excitable by
violet
blue
green
light

LavaCell™ - The solution to intracellular
fluorescent imaging.

LavaCell™, a cell-permeable fluorophore for staining cytoplasmic compartments of live cells

LavaCell™ is a new fluorescent cell stain that provides the simple solution to intracellular imaging of live and fixed cells.

LavaCell™ is based on epicocconone¹, a water soluble, uncharged, low molecular weight fluorophore that readily permeates cells.

Epicocconone only becomes fluorescent on entry to cells enabling staining without permeabilisation or washing steps².

Benefits

Ideal for imaging live cells:

- LavaCell™ is non-toxic and does not affect the growth rate of animal, fungal or bacterial cells
- Cells spontaneously stain with LavaCell™ without pre-treatments
- Cells are imaged without washing steps

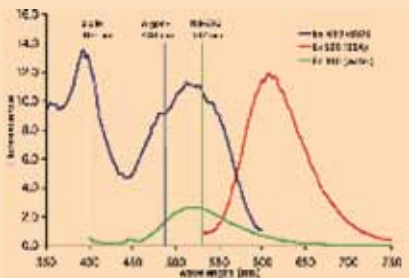
Staining is simple

- Live and fixed cells readily take-up LavaCell™
- LavaCell™ becomes fluorescent only on entry into the cell

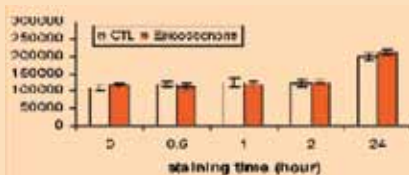
Ideal for multiplex applications:

- Cells stained with LavaCell™ can be multiplexed with other fluorescent stains using a single light source
- LavaCell™ fluoresces orange when excited by violet, blue or green light making it compatible with light sources used on standard instruments.

Epicocconone structure & spectral characteristics

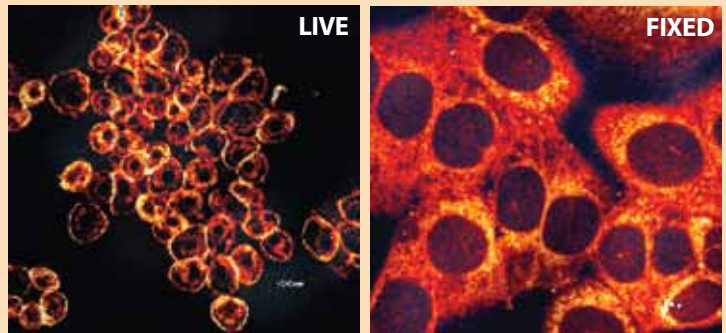


Low cytotoxicity

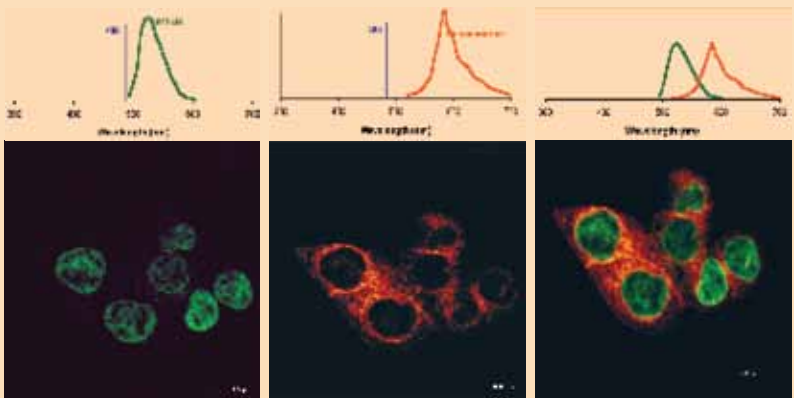


LavaCell™ had no significant effect on the growth rate of a human colon cancer cell line at a concentration, similar or higher than typically used for staining.

Live and fixed cell staining



Multiplexing



Cells were fixed and dual stained with Sytox® - green (nucleic acids) and LavaCell™. Image was obtained using a single laser (488-argon ion) in Leica TCS SP2.



Cells were fixed and dual stained with Hoechst™ 33342 and LavaCell™. Image was obtained using two wavelengths (405 nm for Hoechst™ and 488 nm for LavaCell™).



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Contact us for further details

1. Bell, P. & Karuso, P. 2003 J. Am. Chem. Soc. 125, 9304. 2. Choi, et al., 2006 J. Fluorescence 7, 2401-2404
LavaCell™ is a trademark of Fluorotech
Sytox® is a registered trademark of Invitrogen Corporation
Hoechst™ is a trademark of Aventis Pharmaceuticas Inc. NJ, USA

Simple
to use