

FLUOROPHORES FOR LIVE CELL IMAGING

ReZolve Scientific provides unique imaging solutions which will reduce your preparation and extend your imaging time. The proprietary ReZolve™ and IraZolve™ dyes are derived from low-spin transition metal complexes (e.g., Re(I) tricarbonyl tetrazolo complexes and cyclometalated Ir(III) complexes). Emission from the low-spin metal ion complex results from charge transfer between the metal center and highly conjugated ligands. The charge transfer between metal and ligand produces long-lasting fluorescent emission. These unique metal ion complex dyes exhibit high quantum yields, long-lived (millisecond) visible emission, are resistant to photobleaching and have been developed to allow for live cell imaging. The clear advantage of this technology over small fluorescent molecules or fluorescently labeled antibodies is that it overcomes the limitations of photobleaching, short (nanosecond) emissive lifetime and no need for cell fixation. The photostability, low cytotoxicity and fast cellular uptake of ReZolve Scientific's fluorophores allow imaging of energy storage, cell signalling, metabolic processes and membrane dynamics in real time.

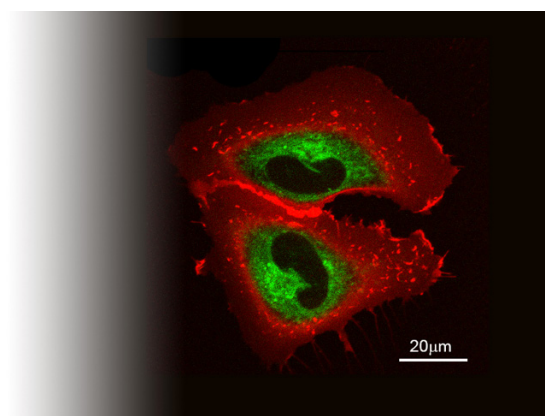
COLLABORATING WITH

AdipoGen®
LIFE SCIENCES

www.adipogen.com

KEY ATTRIBUTES/ADVANTAGES:

- ✓ Quick and simple to use
- ✓ Compatible with live and fixed samples, low cytotoxicity
- ✓ Compatible with other dyes
- ✓ Can be used for real time localization
- ✓ Highly photostable, for longer imaging time
- ✓ Stable at room temperature
- ✓ Compatible with fluorescence and multiphoton microscopy
- ✓ Detectable by X Ray Fluorescence, Raman or Infrared spectroscopy



Properties	ReZolve-L1™	IraZolve-L1™	ReZolve-ER™	IraZolve-ER Blue™	IraZolve-Mito™	IraZolve-Alkyne™
Localization	Polar lipids	Lipid droplets and endoplasmic reticulum	Endoplasmic reticulum	Endoplasmic reticulum	Mitochondria	User defined luminescent tag
Color	● or ●	●	●	●	●	●
Resistance to photobleaching	High	High	High	High	High	High
Cytotoxicity	Low	Low	Low	Low	Low	Low
Excitation (Ex)/ Emission (Em)	UV or 405 nm/ 550 nm	UV or 405 nm/ 600 nm	UV or 405 nm/ 570 nm	UV or 405 nm/ 515 nm	UV or 405 nm/ 600 nm	UV or 405 nm/ 570 nm
Solubility	DMSO	DMSO	DMSO	DMSO	DMSO	DMSO
Storage & Transport	Room temperature	Room temperature	Room temperature	Room temperature	+ 4° C	Room temperature

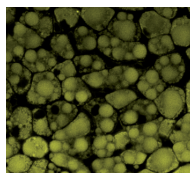
LIPID STAINING DYES

ReZolve-L1™

REZ-1101021

Excitation/Emission (nm): 405/550 nm

ReZolve-L1™ is a cell-permeant stain which has an affinity for polar lipids and can be used in a wide variety of live and fixed cells. This stain is an effective monitoring and tracer tool of cellular lipid content (e.g. cholesterol, sphingolipid and phospholipid) and intracellular lipid localization and can be used to label lipid droplets and other high lipid-content compartments.

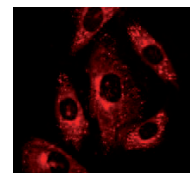


IraZolve-L1™

REZ-1101023

Excitation/Emission (nm): 405/500 nm

IraZolve-L1™ is a cell-permeant stain that localizes with polar lipids and can be used in a wide variety of live and fixed cells. IraZolve-L1™ provides excellent and rapid lipid staining, labels intracellular lipid droplets and the endoplasmic reticulum in cultured cells. It is perfect to visualize lipid-rich compartments. Similar to ReZolve-L1™, the red emitting IraZolve-L1™ has an affinity for lipids which allows you to monitor changes in cellular lipid localized with lipid droplets and the endoplasmic reticulum.



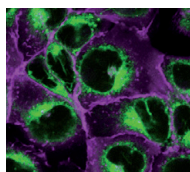
ENDOPLASMIC RETICULUM STAINING DYES

ReZolve-ER™

REZ-1101022

Excitation/Emission (nm): 405/570 nm

ReZolve-ER™ is a live cell imaging agent with rapid cell uptake for imaging the endoplasmic reticulum (ER) in a wide variety of live and fixed cells. This fluorophore is ideal for intermittent or long term monitoring of the endoplasmic reticulum with quick cellular uptake and localization, low cytotoxicity and high photostability to increase image acquisition time.

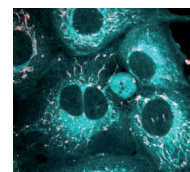


IraZolve-ER Blue™

REZ-1101026

Excitation/Emission (nm): 405/515 nm

IraZolve-ER Blue™ localizes to the endoplasmic reticulum (ER) in live and fixed cells. It is highly cell-permeable, producing quick and reliable cell staining. This stain has low cytotoxicity and great photostability, making it ideal for time resolved imaging. IraZolve-ER Blue™ is suited to fixed cell applications, including for use with antibody stainings, allowing the detailed visualization of the endoplasmic reticular structure in relation to your protein of interest.



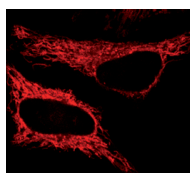
MITOCHONDRIAL STAINING DYE

IraZolve-Mito™

REZ-1101024

Excitation/Emission (nm): 405/600 nm

The mitochondrial marker IraZolve-Mito™ is a specialized live cell imaging agent with rapid cell uptake for mitochondria. IraZolve-Mito™ can be used for effective staining and rapid imaging of mitochondria in live and fixed tissues. This cell-permeable stain allows mitochondrial detection in tissue samples in one step with no requirement for tissue permeabilization or even sectioning.



UNIQUE FLUORESCENT TAG

IraZolve-Alkyne™

REZ-1101025

Excitation/Emission (nm): 405/570 nm

ReZolve-Alkyne™ is a cell-permeable luminescent alkyne probe which is ideal for conjugation to a range of targets by copper facilitated 'click' reactions. This luminescent tag offers a large Stokes shift ideal for fluorescent detection by both microscopy or flow cytometry. This product is also suited to multiphoton microscopy. ReZolve-Alkyne™ tags are highly resistant to photobleaching, allowing more time for image acquisition.

