

# Exact FL compatible live-cell dyes

CytoSMART Technologies, Eindhoven, The Netherlands

## Green channel

Excitation: 452/45 nm

Emission: 512/23 nm

<b>Cytoplasm staining</b>	<b>Peak excitation</b>	<b>Peak emission</b>
Cell Tracker Green	492 nm	517 nm
LuminiCell Tracker 540	423 nm	540 nm
Cell tracking dye kit - Green - Cytopainter	490 nm	520 nm
Cell Explorer fixable live cell tracking kit - Green fluorescence	490 nm	520 nm
BioTracker 488 Green CFSE cell proliferation kit	495 nm	519 nm
BioTracker 488 Green Mitochondria Dye	490 nm	523 nm

<b>Organelle staining</b>		<b>Peak excitation</b>	<b>Peak emission</b>
Nucleus	SYTO 13	488 nm	509 nm
Nucleus	SYTO 45	452 nm	484 nm
Nucleus	SYTO 9	483 nm	503 nm
Membrane	PKH67 Green fluorescent cell linker kit	490 nm	502 nm
Mitochondria	BioTracker 488 Green Mitochondria Dye	490 nm	523 nm
Mitochondria	MitoTracker Green FM	490 nm	516 nm
Lysosome	LysoSensor Green	443 nm	505 nm

<b>Functional staining</b>		<b>Peak excitation</b>	<b>Peak emission</b>
Live cells	Calcein AM	495 nm	515 nm
Apoptosis	pSIVA-IANBD (binds to phosphatidylserine)	488 nm	530 nm
Apoptosis	Annexin V Green Dye (binds to phosphatidylserine)	490 nm	515 nm
Apoptosis	CellEvent Caspase-3/7 Green detection reagent	503 nm	530 nm
Reactive oxygen species	BioTracker 515 Green ONOO- dye	490 nm	515 nm

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## Red channel

Excitation: 561/14 nm

Emission: 630/90 nm

Cytoplasm staining	Peak excitation	Peak emission
Cell Tracker Orange	548 nm	576 nm
Cell Tracker Red	577 nm	602 nm
Cell Explorer fixable live cell tracking kit - Red fluorescence	570 nm	600 nm
Cell Explorer live cell tracking kit - Red fluorescence	570 nm	600 nm

Organelle staining		Peak excitation	Peak emission
Nucleus	SYTO 85	567 nm	583 nm
Membrane	PHK26 Red fluorescent cell linker kit	551 nm	567 nm
Membrane	BioTracker 555 Orange Cytoplasmic membrane dye	549 nm	565 nm
Mitochondria	MitoTracker Orange CMTMRos & CM-H <sub>2</sub> TMRos	554 nm	576 nm
Mitochondria	MitoTracker Red CHXRos & CM-H <sub>2</sub> Xros	579 nm	599 nm
Mitochondria	MitoTracker Red FM	581 nm	644 nm
Lysosome	LysoTracker Red FM	581 nm	644 nm
Lysosome	BioTracker 555 UV-Excitation red lysosome dye	554 nm	583 nm

Functional staining		Peak excitation	Peak emission
Live cells	CellTrace Calcein Red-Orange AM	577 nm	590 nm
Dead cells	Propidium Iodide	535 nm	617 nm
Apoptosis	Annexin V Red Dye (binds to phosphatidylserine)	593 nm	614 nm

## Green and red channel

Functional staining kits		Peak excitation	Peak emission
Cell viability	LIVE/DEAD Cell Imaging Kit (488/570)	G: 504 nm R: 563 nm	G: 523 nm R: 587 nm
Apoptosis	Image-iT LIVE Red Poly Caspases Detection Kit	G: 504 nm R: 550 nm	G: 523 nm R: 595 nm
Apoptosis	Image-iT LIVE Red Caspase-3 and -7 Detection Kit	G: 504 nm R: 550 nm	G: 523 nm R: 595 nm