

abberior LIVE ORANGE, mito, 300 stainings

Item number

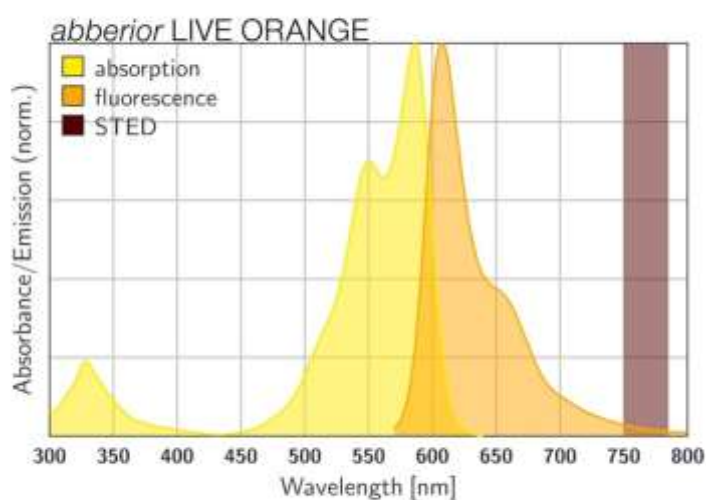
LVORANGE-0146-300STN

Description

abberior LIVE ORANGE mito is a fluorescent probe that specifically stains the cristae in mitochondria. Now, in combination with STED microscopy, these fine mitochondrial components become visible and can be investigated using this organic fluorophore. Due to the chemical structure of the mito-probe, repeated excitation with light over a long period of time is possible without generating toxic effects. This creates the possibility to observe the movement of mitochondria and their substructures through microscopic imaging. The probe can be combined with other fluorescent probes from our abberior LIVE series. This probe shows bright orange fluorescence, which can be effectively excited with a 561 nm laser. For STED, a depletion wavelength between 750 - 800 nm is recommended.

LIVE ORANGE Mito is supplied as a lyophilized powder and should be reconstituted in 150 μ L DMF or DMSO. The resulting stock solution can be diluted 1:1000 for use. At an assay volume of 500 μ L, the product is sufficient for up to 300 stainings.

Note: Depending on the cell type and assay setup, optimization of the dilution factor may be required.



Properties

Absorption	λ_{ex} [nm]	586
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	115000
Emission	λ_{em} [nm]	606
Quantum Efficiency	η_{fl} [%]	26
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	0.8
Correction Factor 260	CF ₂₆₀	0.26
Correction Factor 280	CF ₂₈₀	0.12
Charge	Δq	1
Molecular Weight	MW [g/mol]	894
Derivative/Conjugate	mitochondria	

Photophysical properties were measured in acetonitrile.

Storage

This product contains 1 vial of abberior LIVE ORANGE mito as lyophilized powder, a stock solution of 1 mM in DMF or DMSO is recommended. Depending on cell type or tissue a working solution of 100 nM to 500 nM is advised. Our abberior LIVE mito labels are freeze-dried and shipped at room temperature. Upon arrival, the product can be stored for up to one year at -20 °C. Proximately before the staining procedure dissolve the probe in DMF or DMSO. Once dissolved, the stock solution should be kept at -20 °C, protected from light and moisture.

- Note: Depending on solvent quality the shelf-life of the stock solution might be significantly reduced compared to the probe in its solid form – even if stored at -20 °C.