

abberior LIVE 510, mito, 300 stainings

Item number

LV510-0146-300STN

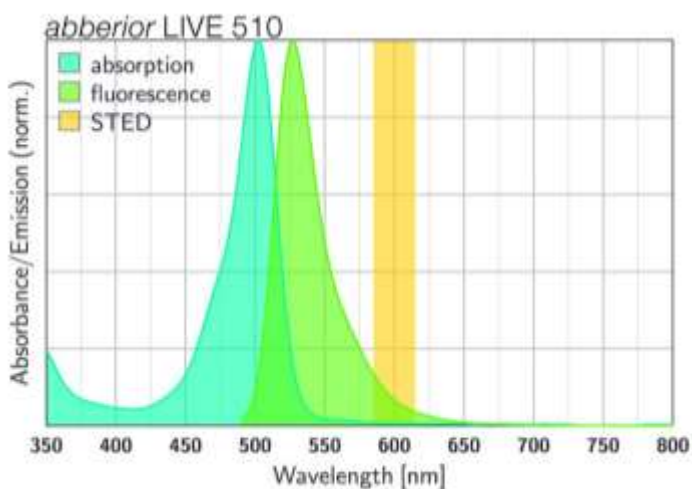
Description

abberior LIVE 510 is a dye designed for live-cell STED and confocal microscopy. Its molecular structure renders the dye strongly fluorogenic and facilitates its ability to overcome cell membranes. It can be optimally excited between 485 - 500 nm. For STED, a depletion wavelength between 590 - 610 nm is recommended. Conjugates of abberior LIVE 510 enable live-cell labeling of proteins and other biological structures e.g. actin or tubulin cytoskeleton.

LIVE 510 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]	498
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	53000
Emission	λ_{em} [nm]	529
Quantum Efficiency	η_{fl} [%]	94
STED min.	$\lambda_{\text{STED min}}$ [nm]	590
STED max.	$\lambda_{\text{STED max}}$ [nm]	610
Fluorescence Lifetime	τ_{fl} [ns]	3.8
Correction Factor 260	CF ₂₆₀	0.26
Correction Factor 280	CF ₂₈₀	0.18
Charge	Δq	0
Molecular Weight	MW [g/mol]	909.6
Charge	Δq	0
Derivative/Conjugate	mitochondria	

Photophysical properties were measured for carboxylic acid in PBS pH 7.4.

Storage

This product contains 1 vial of abberior LIVE 510 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 10 nM to 1 μ M is advised. Additionally, a vial containing 1 μ mol verapamil is provided as an imaging reagent. 10 to 20 nmol verapamil in 1 ml staining solution increases the signal intensity significantly. 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. Proximally 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.