

abberior LIVE 510, tubulin, 50 µg

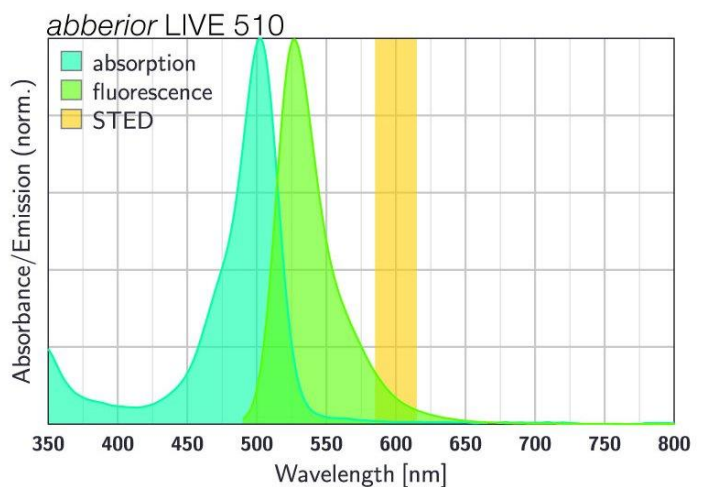
Item number

LV510-0141-50UG

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.

Cell permeable and highly specific fluorescent probe used to label tubulin in living cells. This bright and photostable tubulin probe is based on the microtubule binding drug Cabazitaxel.



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]	1433.4
Derivative/Conjugate	Tubulin (Cabazitaxel)	

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

Storage

This product contains 1 vial of abberior LIVE 510 tubulin 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. abberior LIVE labels and Verapamil are shipped freeze-dried in amounts of 50 μ g per vial (or 2 nmol in case of evaluation samples) and 1 μ mol, respectively. Upon arrival, the substances can be stored for up to one year at –20 °C. Shortly before the staining procedure dissolve the probe and Verapamil in DMF or DMSO. Once dissolved the stock solutions should be kept at –20 °C, protected from light and moisture.

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