

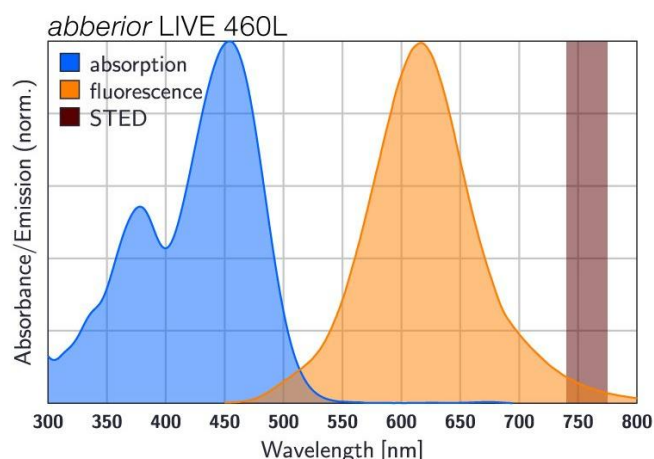
abberior LIVE 460L, DNA, 50 µg

Item number

LV460L-0143-50UG

Description

abberior LIVE 460L is a long Stokes-shift dye optimized for live-cell STED and confocal microscopy. It shows a large Stokes-shift of approx. 162 nm and has a broad excitation and emission band: The dye is excited most efficiently in the range of 440 - 490 nm and emits between 560 - 680 nm. For STED microscopy, abberior LIVE 460L can be used with STED laser wavelengths between 750 - 800 nm. All these features making abberior LIVE 460L the optimal dye for multicolor live-cell STED experiments, in particular as 3rd color in combination with abberior LIVE 550 and LIVE 610.



Cell permeable and photostable fluorescent probe used to label double stranded DNA in fixed and living cells. This highly specific DNA probe is based on Hoechst.

Properties

Absorption	λ_{ex} [nm]	455
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	28000
Emission	λ_{em} [nm]	617
Quantum Efficiency	η_{fl} [%]	17
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	2
Correction Factor 260	CF ₂₆₀	0.55
Correction Factor 280	CF ₂₈₀	0.33
Charge	Δq	0
Molecular Weight	MW [g/mol]	1268.5
Derivative/Conjugate	DNA (Hoechst)	

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

Storage

This product contains 1 vial of abberior LIVE 460L DNA 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 1 nM to 100 nM 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 .