

abberior LIVE 610, DNA, 50 µg

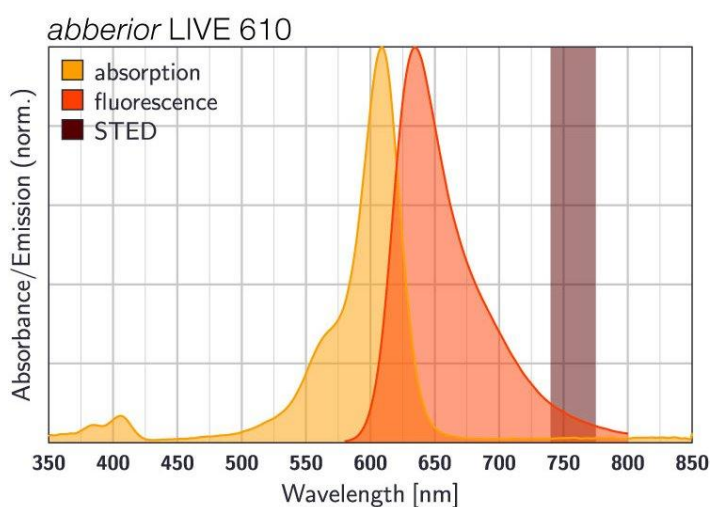
Item number

LV610-0143-50UG

Description

abberior LIVE 610 is a member of a new class of fluorescent dyes for live-cell imaging exclusively offered by abberior. This dye is highly photostable and bright red fluorescent dye, which can be effectively excited with excitation light between 630 - 650 nm. For STED, a depletion wavelength between 750 - 800 nm is recommended. Dedicated selection of the optimal isomeric structure leads to unrivaled cell permeability of this dye. abberior LIVE 610 can therefore be used in very low nanomolar concentration, reducing background and cytotoxicity effectively, allowing long-term STED and confocal imaging of living cells or tissue. Our abberior LIVE 610 is the ideal partner for abberior LIVE 550 or abberior LIVE 560 to obtain optimal 2 color live-cell imaging results.

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]	611
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	100000
Emission	λ_{em} [nm]	636
Quantum Efficiency	η_{fl} [%]	50
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	3.1
Charge	Δq	0
Molecular Weight	MW [g/mol]	935.2
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 610 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 μmol 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 μg per vial (or 2 nmol in case of evaluation samples) and 1 μmol , respectively. Upon arrival, the substances can be stored for up to one year at $-20\text{ }^{\circ}\text{C}$. Shortly before the staining procedure dissolve the probe and Verapamil in DMF or DMSO. Once dissolved the stock solutions should be kept at $-20\text{ }^{\circ}\text{C}$, 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 $-20\text{ }^{\circ}\text{C}$.