

abberior LIVE RED, Halo, 30 nmol

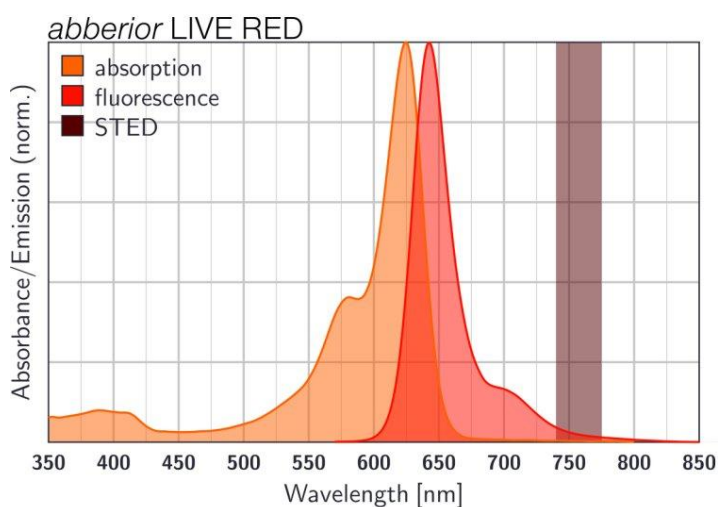
Item number

LVRED-0147-30NMOL

Description

abberior LIVE RED is a member of a new class of fluorescent dyes for live-cell imaging exclusively offered by abberior. This dye is highly photostable and a 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 RED 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 RED is the ideal partner for abberior LIVE 590, abberior LIVE ORANGE and abberior LIVE 460L to obtain optimal 2 or even 3 color live-cell imaging results.

Discover our abberior LIVE RED Halo, a fluorogenic label that covalently binds to the active site of your HaloTag fusion protein within living cells. This label rapidly binds with exceptional specificity under typical physiological conditions.



Properties

Absorption	λ_{ex} [nm]	629
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	110000
Emission	λ_{em} [nm]	647
Quantum Efficiency	η_{fl} [%]	77
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	4.5
Correction Factor 260	CF ₂₆₀	0.16
Correction Factor 280	CF ₂₈₀	0.14
Charge	Δq	0
Molecular Weight	MW [g/mol]	714.3
Derivative/Conjugate		Halo

Photophysical properties were measured for carboxylic acid in PBS pH 7.4 + 0,1% SDS.

Storage

Each purchase includes 1 vial of lyophilized abberior LIVE RED Halo, ensuring top-quality performance for live-cell STED and confocal microscopy. For optimal use, we recommend a stock solution of 1 mM in DMF or DMSO. Adjust the working solution concentration between 0.1 μM to 0.5 μM based on the cell type, tissue, and expression rate of your HaloTag fusion protein. HaloTag® labels are shipped freeze-dried in amounts of 30 nmol per vial. 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 label 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 $-20\text{ }^{\circ}\text{C}$.