

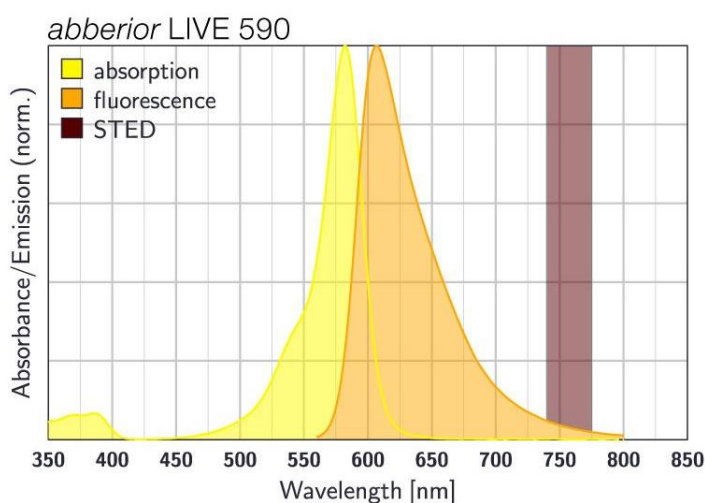
abberior LIVE 590, SNAP, 30 nmol

Item number

LV590-0145-30NMOL

Description

abberior LIVE 590 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 orange fluorescent dye, which can be effectively excited with excitation light between 550 - 610 nm. For STED, a depletion wavelength between 750 - 800 nm is recommended. Due to the unique isomeric structure the favored conformation is stabilized, leading to an enhanced cell permeability of the dye. abberior LIVE 590 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 590 SNAP ligands can be readily used to specifically label your SNAP-tag® fusion proteins of interest within living cells, on cell surfaces, or in vitro. All our bright and photostable abberior LIVE SNAP probes are modified by a benzylguanine substrate as functional group.

SNAP-tag® and CLIP-tag® are registered trademarks of New England Biolabs, Inc.

Properties

Absorption	λ_{ex} [nm]	585
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	105000
Emission	λ_{em} [nm]	609
Quantum Efficiency	η_{fl} [%]	60
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	3.5
Charge	Δq	0
Molecular Weight	MW [g/mol]	680.8
Derivative/Conjugate	SNAP (Benzylguanine)	

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

Storage

This product contains 1 vial of abberior LIVE 590 SNAP as lyophilized powder, a stock solution of 1 mM in DMF or DMSO is recommended. Depending on cell type, tissue, and expression rate of the SNAP-tag® protein a working solution of 10 nM to 1 μ M is advised. abberior SNAP 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 °C. Shortly before the staining procedure dissolve the probe 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.