

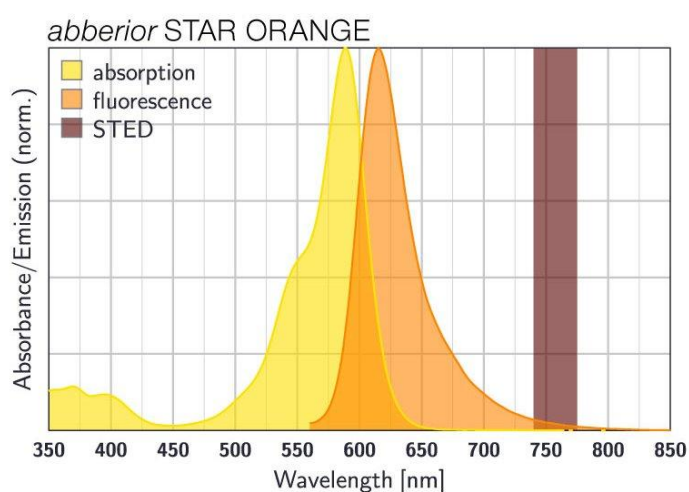
abberior STAR ORANGE, Halo, 30 nmol

Item number

STORANGE-0147-30NMOL

Description

abberior STAR ORANGE is a novel fluorescent dye developed for STED and confocal microscopy in the orange spectral region. Introducing negatively charged groups into its molecular structure making the dye excellently water soluble and enables background-free imaging. Thus, abberior STAR ORANGE is highly photostable and a bright orange fluorescent dye, which can be effectively excited with excitation light between 550 - 610 nm. For STED microscopy, this dye can be most efficiently used with a STED laser wavelength between 750 - 800 nm. Our abberior STAR ORANGE can substitute dyes like ATTO® 594 or Alexa Fluor® 594. Together with our abberior STAR RED you can obtain stunning 2 color STED results. In combination with our abberior STAR 580 you get the ideal pair for FLIM experiments. Best results are obtained with freshly prepared samples.



Discover our abberior STAR GREEN Halo, a cell impermeant label that covalently binds to the active site of your HaloTag fusion protein, whether on the surface of living cells or intracellular targets of fixed cells. This label rapidly binds with exceptional specificity under typical physiological conditions. Each purchase includes 1 vial of lyophilized abberior STAR GREEN Halo, ensuring top-quality performance for STED and confocal microscopy. To achieve optimal results, prepare a stock solution of 1 mM in DMF or DMSO. Adjust the working solution concentration between 0.1 μ M to 0.5 μ M based on the cell type, tissue, and expression rate of your HaloTag fusion protein.

Properties

Absorption	λ_{ex} [nm]	589
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	95000
Emission	λ_{em} [nm]	616
Quantum Efficiency	η_{fl} [%]	55
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	0.55
Correction Factor 280	CF ₂₈₀	0.56
Charge	Δq	-3
Molecular Weight	MW [g/mol]	999.6
Derivative/Conjugate		Halo

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

Storage

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 °C. Shortly before the staining procedure dissolve the label in DMF or DMSO. Once dissolved the stock solutions should be kept at 20 °C, protected from light and moisture.

- 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.