

abberior STAR 635, NHS ester, 1 mg

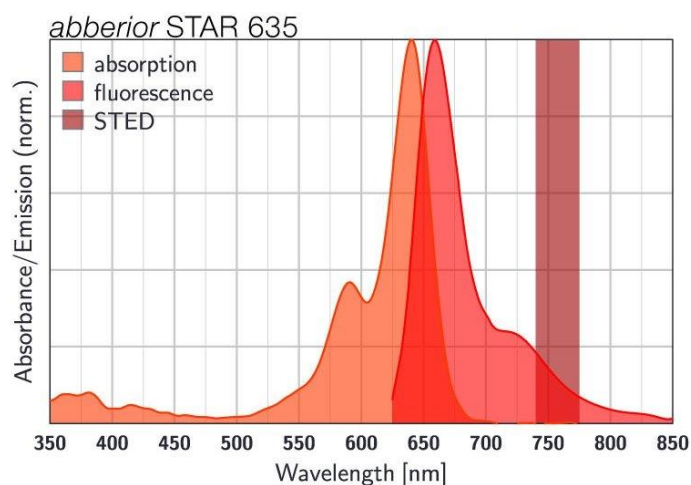
Item number

ST635-0002-1MG

Description

abberior STAR 635 is a dye developed for STED and confocal imaging in the red spectral region. It features exceptional photostability, very high brightness and low background labeling. abberior STAR 635 can be excited with lasers at wavelength between 630 - 650 nm. For STED, a depletion wavelength around 750 - 800 nm is recommended. Our abberior STAR 635 can substitute dyes like ATTO® 647N, Alexa Fluor® 647, or Cy5®. Best results are obtained with freshly prepared samples.

The NHS ester is a widespread tool for conjugating a fluorescent dye to a protein or antibody. NHS ester can be used to label primary amines of proteins or amine-modified molecules. The resulting abberior conjugate will show a bright fluorescence and photostability. abberior offers protocols for labeling antibodies via amine-reactive groups.



Properties

Absorption	λ_{ex} [nm]	635
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	110000
Emission	λ_{em} [nm]	655
Quantum Efficiency	η_{f} [%]	88
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{f} [ns]	2.8
Correction Factor 260	CF ₂₆₀	0.26
Correction Factor 280	CF ₂₈₀	0.38
Charge	Δq	0
Molecular Weight	MW [g/mol]	993.1
Derivative/Conjugate		NHS ester

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



Storage

The product contains a vial of dried, solid substance and is shipped at room temperature. Upon arrival, the product can be stored at $-20\text{ }^{\circ}\text{C}$ to $-80\text{ }^{\circ}\text{C}$ for long-term storage of up to one year. The conjugate should be protected from direct light exposure and repeated freeze-thaw cycles should be avoided.

- Depending on solvent quality the shelf-life of the NHS solution might be significantly reduced compared to the NHS in its solid form – even if stored at $-20\text{ }^{\circ}\text{C}$.