

abberior STAR 635P, NHS ester, 500 µg

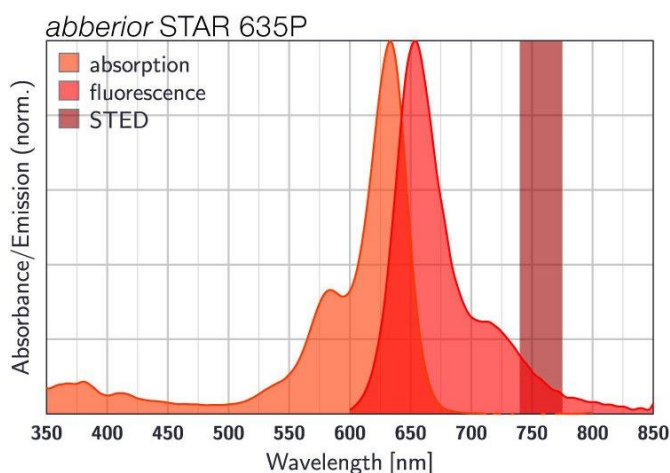
Item number

ST635P-0002-500UG

Description

abberior STAR 635P was the first member of an entirely new class of fluorescent dyes introduced exclusively by abberior: the class of phosphorylated fluorescent dye. This dye excels in its photophysical parameters, it is very bright, very photostable and its high water solubility enables basically background-free imaging. abberior STAR 635P can be excited with lasers at wavelength between 630 - 650 nm. For STED, a depletion wavelength around 750 - 800 nm is recommended. abberior STAR 635P is the ideal partner for abberior STAR 580 or abberior STAR ORANGE to obtain optimal 2 color STED results. Our abberior STAR 635P can substitute 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]	638
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	120000
Emission	λ_{em} [nm]	651
Quantum Efficiency	η_{fl} [%]	90
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	3.3
Correction Factor 260	CF ₂₆₀	0.21
Correction Factor 280	CF ₂₈₀	0.4
Charge	Δq	-3
Molecular Weight	MW [g/mol]	1030.8
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 °C to -80 °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 °C.