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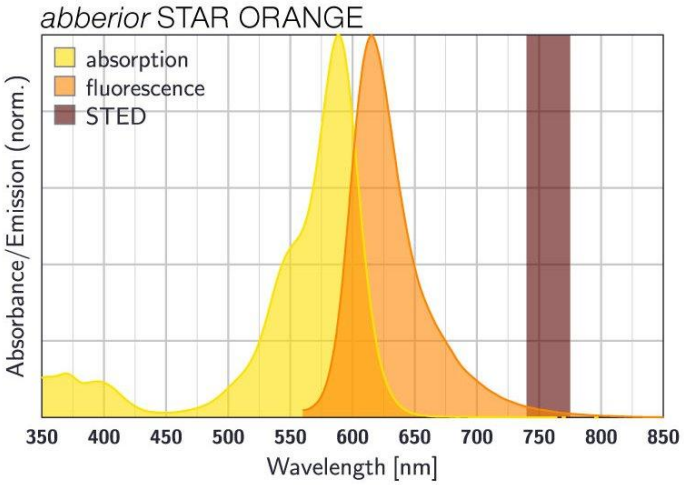
abberior STAR ORANGE, maleimide, 1 mg

Item number

STORANGE-0003-1MG

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.



The maleimide is used for conjugating a fluorescent dye to a thiol group (cysteine residues) on a protein or thio-modified molecules. The resulting abberior conjugate will show a bright fluorescence and photostability. abberior offers labeling protocols for labeling of antibodies via thiol-reactive groups.

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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.	$\lambda_{STED\ min}$ [nm]	750
STED max.	$\lambda_{STED\ max}$ [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]	915.98
Derivative/Conjugate		Maleimide

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

Storage

The product contains a vial of lyophilized powder and is shipped at room temperature. Upon arrival, please store the product at -20 °C. For proper long-term storage up to one year, protect the product from light and moisture.

- Our abberior maleimides are freeze-dried and should be dissolved only shortly before the coupling reaction. Recommended solvents include amine- and water-free DMF, DMSO, or acetonitrile.