Hans-Adolf-Krebs-Weg 6
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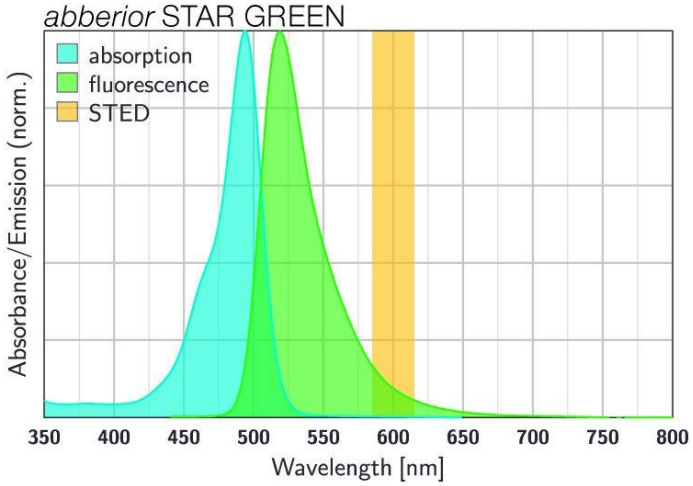
abberior STAR GREEN, NHS ester, 1 mg

Item number

STGREEN-0002-1MG

Description

abberior STAR GREEN is a novel fluorescent dye belonging to the group of fluorescein dyes. Characteristic features of this dyes are bright green fluorescent with a fluorescent quantum yield of over 80% and exceptional photostability under STED and confocal imaging conditions. abberior STAR GREEN can be very effectively excited with the 488 nm laser line. For STED microscopy, this dye can be efficiently used with a STED laser wavelength between 590 – 610 nm. Our abberior STAR GREEN is the ideal partner for abberior STAR 440L to obtain optimal 2 color STED results with a single depletion laser. abberior STAR GREEN can substitute dyes like Oregon Green® 488, ATTO® 488 or Alexa Fluor® 488. 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]	493
Extinction Coefficient	ε_{max} [$M^{-1}cm^{-1}$]	75000
Emission	λ_{em} [nm]	519
Quantum Efficiency	η_{fl} [%]	84
STED min.	$\lambda_{STED\ min}$ [nm]	590
STED max.	$\lambda_{STED\ max}$ [nm]	610
Fluorescence Lifetime	τ_{fl} [ns]	4.1
Correction Factor 260	CF_{260}	0.48
Correction Factor 280	CF_{280}	0.34
Charge	Δq	0
Molecular Weight	MW [g/mol]	580.4
Derivative/Conjugate		NHS ester

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

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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.