

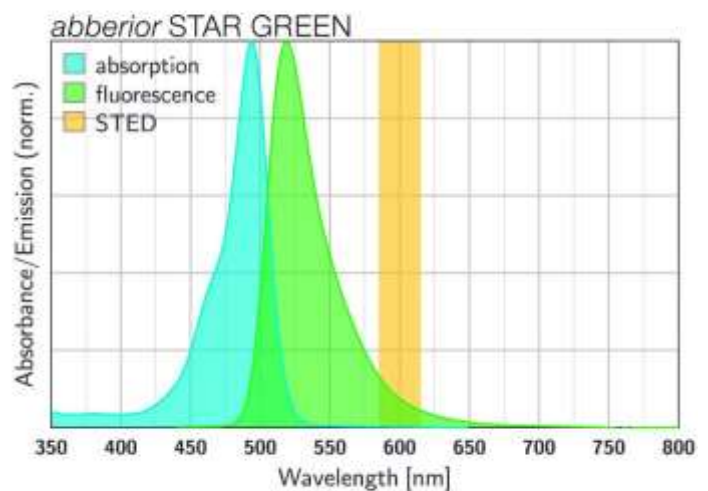
abberior STAR GREEN, Protein Labeling Kit, 1 Kit

Item number

STGREEN-0050-1KIT

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.



Introducing our advanced protein labeling kit, ideal for seamlessly labeling various proteins including polyclonal and monoclonal IgG antibodies, Fab fragments, nanobodies, and more, with high-quality abberior dyes. Optimized for proteins over 4 kDa, this kit contains all the necessary components for a quick and straightforward labeling process. The included protocol ensures protein conjugates with exceptional brightness and photostability. The procedure has been thoroughly tested with our abberior dyes, which react with free amines on the protein to form stable amide bonds under mild conditions, providing consistent results. Note that this kit is not suitable for IgM proteins. While proteins smaller than 4 kDa can be labeled, purification using the included ultrafiltration system will need to be carried out separately.

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.	$\lambda_{\text{STED min}}$ [nm]	590
STED max.	$\lambda_{\text{STED max}}$ [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
Derivative/Conjugate	Protein Labeling Kit	

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

Storage

The product is shipped at room temperature. After arrival, the product can be stored for up to one year at 4 °C. The product should be protected from direct light exposure.