

abberior STAR 580, azide, 1 mg

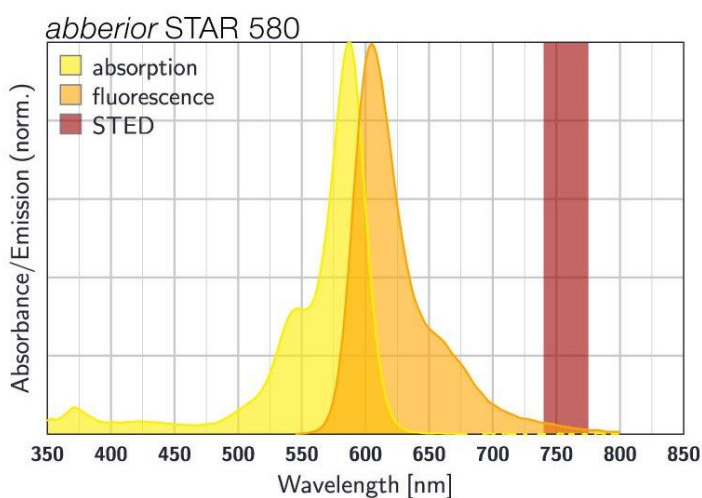
Item number

ST580-0004-1MG

Description

abberior STAR 580 was developed for STED and confocal microscopy in the orange spectral region. Characteristic features of this dye are exceptional photostability and high fluorescent quantum yield of 90%. abberior STAR 580 can be very effectively excited with excitation wavelength between 550 - 600 nm. For STED microscopy, abberior STAR 580 can be used most efficiently with a STED laser wavelength between 750 - 800 nm. Our abberior STAR 580 can substitute dyes like Cy3, ATTO® 590 or Alexa Fluor® 568. abberior STAR 580 is the ideal partner for abberior STAR RED or abberior STAR 635P to obtain optimal 2 color STED results. Together with our abberior STAR ORANGE you get the ideal pair for FLIM experiments. Best results are obtained with freshly prepared samples.

The azide-alkyne Huisgen cycloaddition, also known as “Click Chemistry”, is commonly used to join small molecules together. Copper catalyzes the cycloaddition forming a covalent bond between label and molecule. Organic fluorescent dye for microscopy.



Properties

Absorption	λ_{ex} [nm]	587
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	85000
Emission	λ_{em} [nm]	607
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]	3.5
Correction Factor 260	CF ₂₆₀	0.17
Correction Factor 280	CF ₂₈₀	0.17
Charge	Δq	1
Molecular Weight	MW [g/mol]	785.9
Derivative/Conjugate		Azide

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 azide comes as a freeze-dried powder and should be dissolved in DMF or DMSO.