

abberior CAGE 590, streptavidin, 1 mg

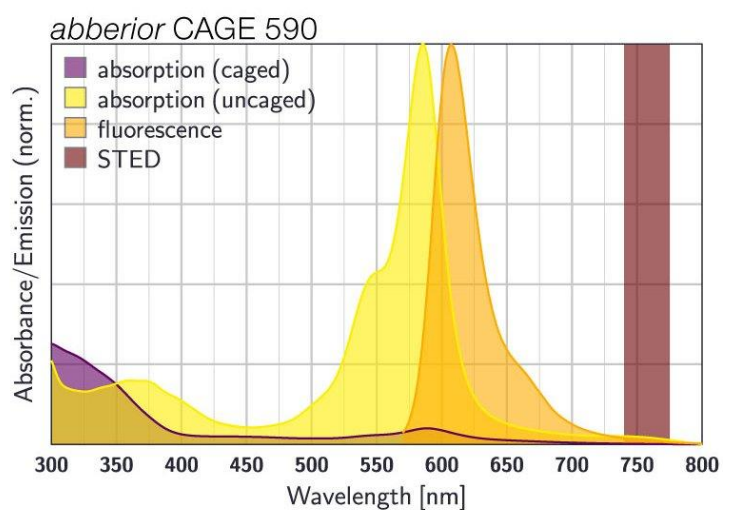
Item number

CA590-0120-1MG

Description

abberior CAGE 590 is a caged dye which is initially colorless and nonfluorescent. When illuminated with UV light it undergoes a rapid uncaging reaction and releases a highly fluorescent orange-red dye. It can most effectively be excited from 560 to 600 nm. abberior CAGE 590 is designed for single-molecule photoswitching microscopy modes such as PALM, STORM and GSDIM and, in its uncaged form, also performs well in STED microscopy. Further, after photoactivation, abberior CAGE 590 can be tracked in confocal and epifluorescence microscopy to analyses molecular dynamics such as diffusion, flow directions and velocities, e.g. are tracking experiments in which the fluorescence signal is observed over time after the initial release of the fluorophore.

Streptavidin is suitable for fluorescence labeling of biotin conjugated molecules.



Properties

Absorption	λ_{ex} [nm]	595
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	75000
Emission	λ_{em} [nm]	615
Quantum Efficiency	η_{fl} [%]	90
Activation	λ_{act} [nm]	405
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	4
Charge	Δq	0
Derivative/Conjugate	Streptavidin	

*Photophysical properties were measured for carboxylic acid in PBS pH 7.4.
Values refer to the photoactivated state of the dye.*

Storage

The product contains a vial of buffered solution and is shipped at room temperature. Upon arrival, the product can be stored at 4 °C for up to one month. Please split the product into smaller aliquots and store these at -20 °C to -80 °C for long-term storage of up to one year. Protect the conjugate from direct light exposure and avoid repeated freeze-thaw cycles.