

abberior CAGE 590, phalloidin, 20 µg

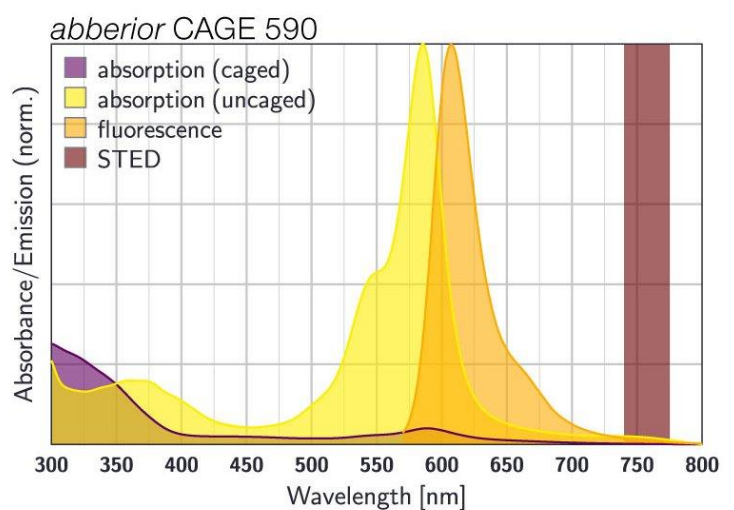
Item number

CA590-0100-20UG

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.

Fluorescent dye conjugate of phalloidin are used to stain F-actin. The high specificity of phalloidin offers significant advantages over antibodies for actin labeling.



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
Molecular Weight	MW [g/mol]	1388.6
Derivative/Conjugate	Phalloidin	

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

Storage

Our *abberior phalloidin* probes are freeze-dried and shipped at room temperature. Upon arrival, the product can be stored for up to one year at –20 °C. Shortly before the staining procedure dissolve the probe in DMF or DMSO. Once dissolved the stock solutions should be kept at –20 °C, protected from light and moisture.

- Depending on solvent quality the shelf-life of the stock solutions might be significantly reduced compared to the phalloidin conjugate in its solid form. Repeated freeze-thaw cycles can be avoided by splitting the dissolved compound into smaller aliquots.