

abberior CAGE 552 phalloidin, 20 µg

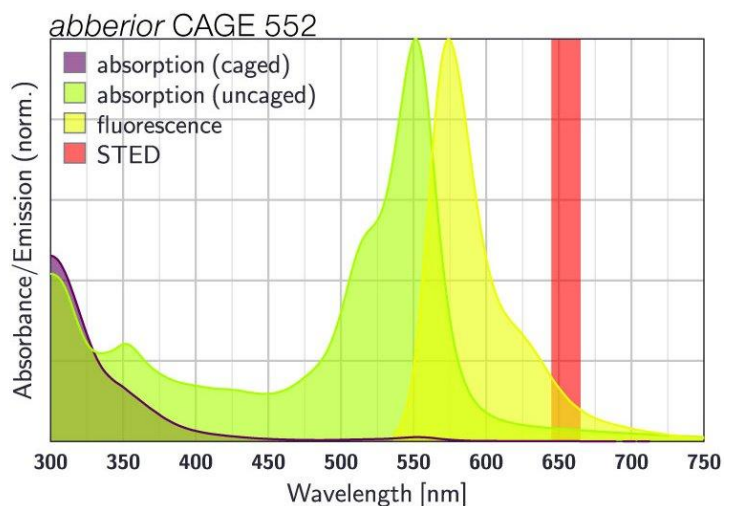
Item number

CA552-0100-20UG

Description

abberior CAGE 552 is a caged dye which is initially nonfluorescent and colorless substance which, upon photolysis at 360 - 440 nm, readily transforms into a red and highly fluorescent dye. It absorbs around 552 nm and emits around 575 nm. abberior CAGE 552 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. After uncaging it can be effectively used for STED with a depletion wavelength between 650 - 775 nm. High brightness and a very good photostability are key features of the uncaged form of this dye. It is the smallest and lightest caged rhodamine dye available. Further, after photoactivation, abberior CAGE 552 can be tracked to analyze molecular dynamics such as diffusion, flow directions and velocities in 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]	552
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	66000
Emission	λ_{em} [nm]	574
Quantum Efficiency	η_{fl} [%]	73
Activation	λ_{act} [nm]	405
STED min.	$\lambda_{\text{STED min}}$ [nm]	650
STED max.	$\lambda_{\text{STED max}}$ [nm]	775
Fluorescence Lifetime	τ_{fl} [ns]	4
Charge	Δq	0
Molecular Weight	MW [g/mol]	1224.3
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.