

abberior FLUX 640, maleimide, 1 mg

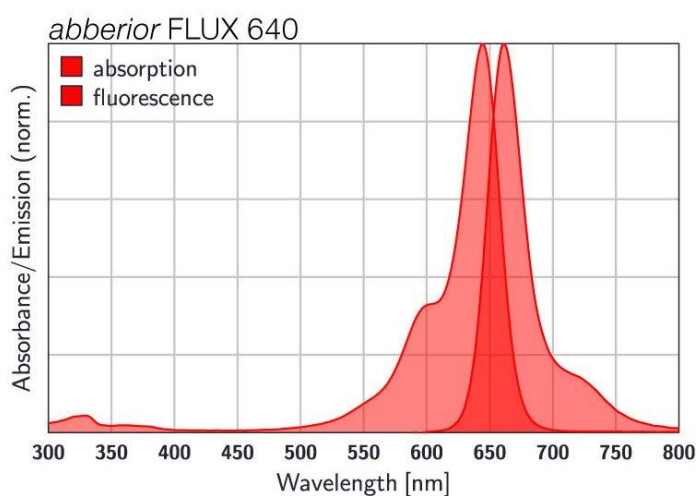
Item number

FX640-0003-1MG

Description

abberior FLUX 640 is a dye developed for MINFLUX imaging in the red spectral region. It combines exceptional photostability, high brightness, and low background labeling with photoswitching kinetics optimized for MINFLUX imaging. abberior FLUX 640 can be applied with excitation laser wavelengths between 630 - 650 nm together with a detection window between 650 - 750 nm. For MINFLUX imaging abberior FLUX 640 is used with MINFLUX imaging buffers such as GLOX buffer. Our abberior FLUX 640 can substitute dyes like Alexa Fluor® 647, or Cy5®. The combination of abberior FLUX 640 and abberior FLUX 680 is recommended for 2 color MINFLUX imaging.

The maleimide is used for conjugating a fluorescent dye to a thiol group (cysteine residues) on a protein or thio-modified molecules. The resulting abberior conjugate will show a bright fluorescence and photostability. abberior offers labeling protocols for labeling of antibodies via thiol-reactive groups.



Properties

Absorption	λ_{ex} [nm]	644
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	240000
Emission	λ_{em} [nm]	660
Quantum Efficiency	η_{fl} [%]	22
Fluorescence Lifetime	τ_{fl} [ns]	0.8
Correction Factor 260	CF ₂₆₀	0.04
Correction Factor 280	CF ₂₈₀	0.03
Charge	Δq	-2
Molecular Weight	MW [g/mol]	845
Derivative/Conjugate		Maleimide

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 maleimides are freeze-dried and should be dissolved only shortly before the coupling reaction. Recommended solvents include amine- and water-free DMF, DMSO, or acetonitrile.