

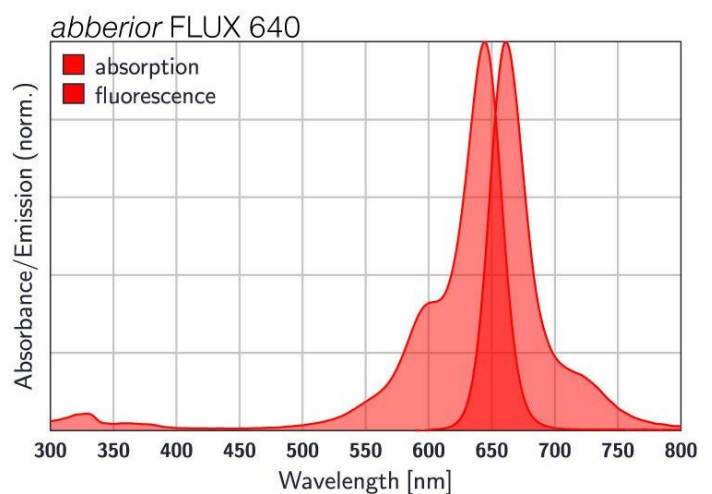
abberior FLUX 640, Protein Labeling Kit, 1 Kit

Item number

FX640-0050-1KIT

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.



Introducing our advanced protein labeling kit, ideal for seamlessly labeling various proteins including polyclonal and monoclonal IgG antibodies, Fab fragments, nanobodies, and more, with high-quality abberior dyes. Optimized for proteins over 4 kDa, this kit contains all the necessary components for a quick and straightforward labeling process. The included protocol ensures protein conjugates with exceptional brightness and photostability. The procedure has been thoroughly tested with our abberior dyes, which react with free amines on the protein to form stable amide bonds under mild conditions, providing consistent results. Note that this kit is not suitable for IgM proteins. While proteins smaller than 4 kDa can be labeled, purification using the included ultrafiltration system will need to be carried out separately.

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
Derivative/Conjugate	Protein Labeling Kit	

Photophysical properties were measured for carboxylic acid in PBS pH 7.4.

Storage

The product is shipped at room temperature. After arrival, the product can be stored for up to one year at 4 °C. The product should be protected from direct light exposure.