

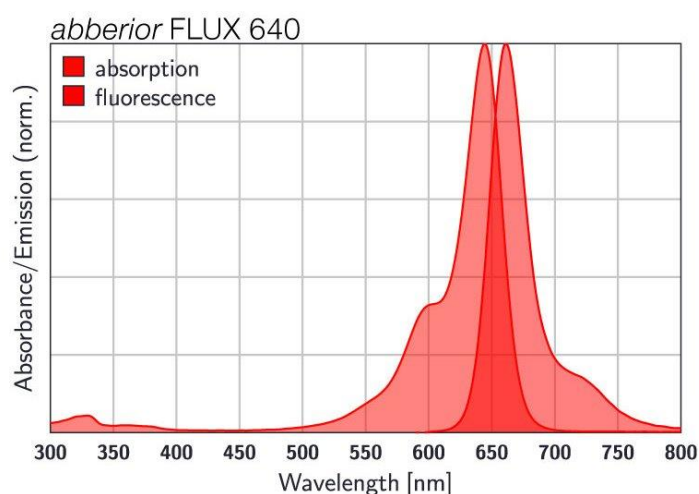
abberior FLUX 640, nanobody anti-rabbit IgG, 30 µl (1 mg/ml)

Item number

FX640-1010-30UG

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.



Traditional primary and secondary antibody techniques can result in a ~20 nm distance from your epitope of interest to the fluorophore, causing linkage error. For techniques like MINFLUX, which can localize fluorophores with <3 nm precision, minimizing this linkage error is crucial for accurate analysis. Our innovative solution combines abberior FLUX dyes with Jackson ImmunoResearch's polyclonal secondary nanobodies (AffiniPure-VHH Secondaries). Optimized for single molecule localization techniques such as MINFLUX and STORM microscopy, abberior FLUX dyes offer unparalleled precision. The nanobodies are cross-adsorbed for exceptional specificity, reducing cross-reactivity and making them ideal for multiple labeling experiments.

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	Nanobody anti-rabbit, polyclonal	

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

Storage

Polyclonal Nanobodies from Jackson ImmunoResearch are shipped in solution at ambient temperature. Upon arrival, the product can be stored at 4 °C for a short period of time. For long-term storage of up to one year add glycerol for a final concentration of 50 %, and store at -20 °C as a liquid.

- Avoid repeated freeze-thaw cycles for all nanobody products. Therefore, it is recommended to split the abberior secondary nanobody solution into smaller aliquots. Minimize exposure to light to prevent photobleaching of the dye.