

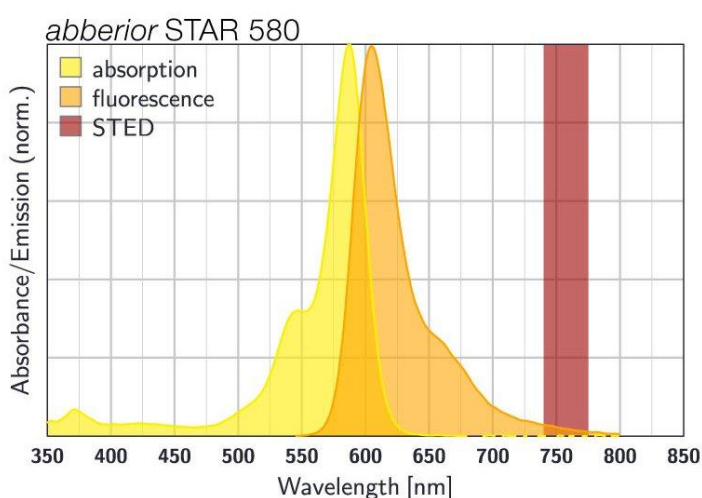
abberior STAR 580, nanobody anti-mouse IgG, 30 µl (1 mg/ml)

Item number

ST580-1009-30UG

Description

abberior STAR 580 was developed for STED and confocal microscopy in the orange spectral region. Characteristic features of this dye are exceptional photostability and high fluorescent quantum yield of 90%. abberior STAR 580 can be very effectively excited with excitation wavelength between 550 - 600 nm. For STED microscopy, abberior STAR 580 can be used most efficiently with a STED laser wavelength between 750 - 800 nm. Our abberior STAR 580 can substitute dyes like Cy3, ATTO® 590 or Alexa Fluor® 568. abberior STAR 580 is the ideal partner for abberior STAR RED or abberior STAR 635P to obtain optimal 2 color STED results. Together with our abberior STAR ORANGE you get the ideal pair for FLIM experiments. Best results are obtained with freshly prepared samples.



Nanobodies are an exciting, novel antibody format. Being 10x smaller than conventional whole IgG antibodies, the 15kDa nanobodies are perfect for high resolution imaging experiments where small labels, good penetration and outstanding specificity is necessary. The combination of super bright and highly photostable abberior STAR dyes and the polyclonal nanobodies produced in alpacas from Jackson ImmunoResearch (AffiniPure-VHH™ Secondaries) offer a fantastic solution for high-quality and high-resolution imaging. The nanobodies are cross-adsorbed for exquisite specificity against target species with minimal cross-reactivity to other commonly used species, making them suitable for application in multiple labeling experiments.

Properties

Absorption	λ_{ex} [nm]	587
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	85000
Emission	λ_{em} [nm]	607
Quantum Efficiency	η_{fl} [%]	90
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	3.5
Correction Factor 260	CF ₂₆₀	0.17
Correction Factor 280	CF ₂₈₀	0.17
Charge	Δq	1
Derivative/Conjugate	Nanobody anti-mouse, 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.