

abberior PLEX 5 color Kit

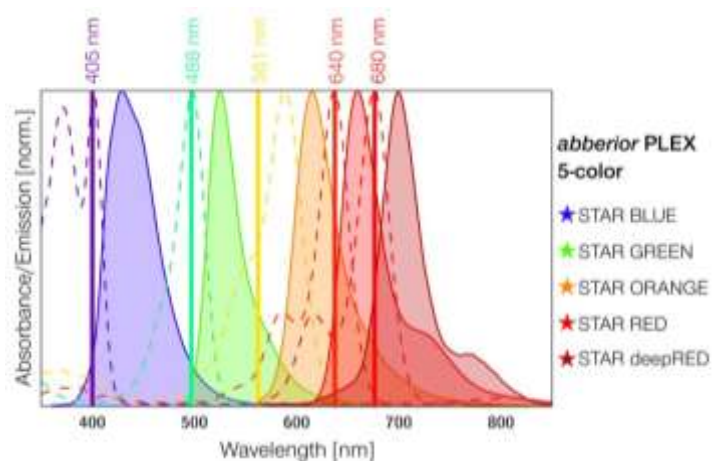
Item number

PLEX-0010-1KIT

Description

abberior STAR PLEX 5-Color Customizable Immunofluorescence Kit

High-performance multiplex imaging can be complex and requires a high initial investment. The *abberior* STAR PLEX 5-Color Kit addresses these challenges by providing a fully configurable system for multicolor immunofluorescence. Based on our gold-standard STAR dyes, this kit allows you to design your own panel and reliably image up to five targets in a single sample with confidence.



Built on Gold-Standard Performance

Utilize *abberior* STAR dyes, renowned for their extreme brightness, superior photostability, and exceptional solubility. Ideal for demanding super-resolution, confocal, widefield, and High-Content Screening (HCS) applications, this kit provides access to all five critical channels: STAR BLUE, STAR GREEN, STAR ORANGE, STAR RED and STAR deepRED.

Designed for Flexibility and Efficiency

This kit is designed for situations requiring smaller reagent volumes, whether you are running pilot experiments, evaluating new antibody panels, conducting specialized student projects, or optimizing custom workflows. It adapts to your specific experimental needs, providing premium imaging capabilities while protecting your budget and shelf space. Every kit includes:

- Customizable Targets: Configurable labeling (pick secondary or Phalloidin conjugate) for each required color slot.
- Efficient Sizes: Practical 100 µl antibody aliquots or 50 Phalloidin units.
- Laser Compatibility: Optimally configured for seamless operation with standard laser lines (405, 488, 561, 640, 680 nm) or white light lasers.
- Workflow-ready: Includes 3 ml of MOUNT SOLID antifade embedding medium.

Properties

abberior STAR deepRED

Absorption	λ_{ex} [nm]	676
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	135000
Emission	λ_{em} [nm]	700
Quantum Efficiency	η_{fl} [%]	38
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	2.7
Correction Factor 260	CF ₂₆₀	0.33
Correction Factor 280	CF ₂₈₀	0.47
Charge	Δq	1

- Derivative/Conjugate:

Goat
- anti-Mouse IgG - anti-Rabbit IgG

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

abberior STAR RED

Absorption	λ_{ex} [nm]	638
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	120000
Emission	λ_{em} [nm]	655
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]	3.4
Correction Factor 260	CF ₂₆₀	0.16
Correction Factor 280	CF ₂₈₀	0.32
Charge	Δq	-1

- Derivative/Conjugate:

Goat	Donkey
- anti-Chicken IgY - anti-Guinea pig IgG - anti-Mouse IgG - anti-Rabbit IgG - anti-Rat IgG	- anti-Goat IgG - anti-Guinea pig IgG - anti-Human IgG - anti-Mouse IgG - anti-Rabbit IgG - anti-Rat IgG - anti-Sheep IgG

Absorption	λ_{ex} [nm]	638
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	120000
Emission	λ_{em} [nm]	655
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]	3.4
Correction Factor 260	CF ₂₆₀	0.16
Correction Factor 280	CF ₂₈₀	0.32
Charge	Δq	-1
Molecular Weight	MW [g/mol]	1657.8
Derivative/Conjugate	Phalloidin	

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

abberior STAR ORANGE

Absorption	λ_{ex} [nm]	589
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	95000
Emission	λ_{em} [nm]	616
Quantum Efficiency	η_{fl} [%]	55
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	4.5
Correction Factor 260	CF ₂₆₀	0.55
Correction Factor 280	CF ₂₈₀	0.56
Charge	Δq	-3

- Derivative/Conjugate:

Goat	Donkey
- anti-Chicken IgY - anti-Guinea pig IgG - anti-Mouse IgG - anti-Rabbit IgG - anti-Rat IgG	- anti-Goat IgG - anti-Guinea pig IgG - anti-Mouse IgG - anti-Human IgG - anti-Rabbit IgG - anti-Rat IgG - anti-Sheep IgG

Absorption	λ_{ex} [nm]	589
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	95000
Emission	λ_{em} [nm]	616
Quantum Efficiency	η_{fl} [%]	55
STED min.	$\lambda_{\text{STED min}}$ [nm]	750
STED max.	$\lambda_{\text{STED max}}$ [nm]	800
Fluorescence Lifetime	τ_{fl} [ns]	4.5
Correction Factor 260	CF ₂₆₀	0.55
Correction Factor 280	CF ₂₈₀	0.56
Charge	Δq	-3
Molecular Weight	MW [g/mol]	1651.7
Derivative/Conjugate	Phalloidin	

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

abberior STAR GREEN

Absorption	λ_{ex} [nm]	493
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	75000
Emission	λ_{em} [nm]	519
Quantum Efficiency	η_{f} [%]	84
STED min.	$\lambda_{\text{STED min}}$ [nm]	590
STED max.	$\lambda_{\text{STED max}}$ [nm]	610
Fluorescence Lifetime	τ_{f} [ns]	4.1
Correction Factor 260	CF ₂₆₀	0.48
Correction Factor 280	CF ₂₈₀	0.34
Charge	Δq	0

- Derivative/Conjugate:

Goat	Donkey
- anti-Chicken IgY - anti-Guinea pig IgG - anti-Mouse IgG - anti-Rabbit IgG - anti-Rat IgG	- anti-Goat IgG - anti-Human IgG - anti-Sheep IgG

Absorption	λ_{ex} [nm]	493
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	75000
Emission	λ_{em} [nm]	519
Quantum Efficiency	η_{f} [%]	84
STED min.	$\lambda_{\text{STED min}}$ [nm]	590
STED max.	$\lambda_{\text{STED max}}$ [nm]	610
Fluorescence Lifetime	τ_{f} [ns]	4.1
Correction Factor 260	CF ₂₆₀	0.48
Correction Factor 280	CF ₂₈₀	0.34
Charge	Δq	0
Molecular Weight	MW [g/mol]	1253.2
Derivative/Conjugate	Phalloidin	

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

abberior STAR BLUE

Absorption	λ_{ex} [nm]	401
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	35000
Emission	λ_{em} [nm]	429
Quantum Efficiency	η_{fl} [%]	93
Fluorescence Lifetime	τ_{fl} [ns]	3.5
Correction Factor 260	CF ₂₆₀	0.3
Correction Factor 280	CF ₂₈₀	0.7
Charge	Δq	-3

- Derivative/Conjugate:

Goat
- anti-Mouse IgG - anti-Rabbit IgG

Absorption	λ_{ex} [nm]	401
Extinction Coefficient	ϵ_{max} [M ⁻¹ cm ⁻¹]	35000
Emission	λ_{em} [nm]	429
Quantum Efficiency	η_{fl} [%]	93
Fluorescence Lifetime	τ_{fl} [ns]	3.5
Correction Factor 260	CF ₂₆₀	0.3
Correction Factor 280	CF ₂₈₀	0.7
Charge	Δq	-3
Molecular Weight	MW [g/mol]	1398.3
Derivative/Conjugate	Phalloidin	

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

abberior MOUNT Solid Antifade:

- pH 8.5
- Refractive Index (before hardening): n = 1.38

Components

STAR BLUE	STAR GREEN	STAR ORANGE	STAR deepRED
			STAR RED
goat	X	anti-mouse anti-rabbit anti-guinea pig	anti-rat anti-chicken
donkey	X	anti-mouse anti-rabbit anti-guinea pig	anti-rat anti-sheep anti-goat
Phalloidin			

- Goat secondary antibodies (100 µl, 1 mg/ml) against: mouse, rabbit, chicken, guinea pig, rat
- Donkey highly cross-adsorbed antibodies (100 µl, 1 mg/ml) against: mouse, rabbit, guinea pig, rat, human, sheep, goat
- Phalloidin (50 units) for F-actin staining (Note: The lyophilized phalloidin should be dissolved in 250 µl DMF or DMSO to yield a stock concentration of 200 Units/ml.)
- abberior* MOUNT Solid Antifade, 3 x 1ml / n=1.38 / pH 8.5

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.
- Our *abberior* conjugate products contain a vial of buffered solution and is shipped at room temperature. Upon arrival, the product can be stored at 4 °C for up to one month. Please split the product into smaller aliquots and store these at -20 °C to -80 °C for long-term storage of up to one year.
- Protect the probes from direct light exposure and avoid repeated freeze-thaw cycles. Repeated freeze-thaw cycles can be avoided by splitting the dissolved compound into smaller aliquots.
- The *abberior* Mounting Medium should be stored at 4°C for short-term storage and at -20°C for long-term storage.