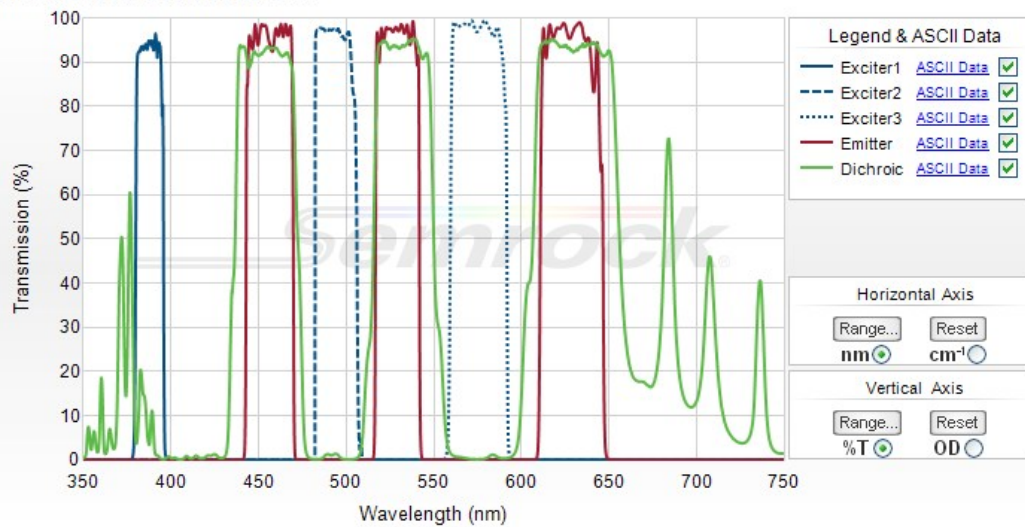


**BrightLine® Pinkel filter set, optimized for DAPI, FITC, & Texas Red and other like fluorophores**

Part Number: DA/FI/TX-3X-C-000



**Semrock, Inc**

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**BrightLine® Pinkel filter set, optimized for DAPI, FITC, & Texas Red and other like fluorophores**

This 5-filter "Pinkel" set is based on the award-winning BrightLine blue-green-red multiband filter set, but instead of a multiband exciter it has three single-band exciters, a multiband beamsplitter, and a multiband emitter. With its high brightness, extremely low crosstalk, and superb signal-to-noise performance, it is ideal for three-fluorophore imaging using a low-noise monochrome camera.

**Individual filters and filter sets (no cube):**

These filters sets contain individual filters. For filter sets already mounted in a holder/cube, scroll down to see complete mounted sets with cubes.

Part Number	Price <sup>1</sup>	Stock Status	
DA/FI/TX-3X-C-000 (Standard size set, fits most microscopes)	\$1,565	In Stock	
<b>Filter Role</b>	<b>Filter Size</b>	<b>Part Number</b>	<b>Price<sup>1</sup></b>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
DA/FI/TX-3X-C-L01 (Leica 'Large' set)	\$1,565	Contact Us	
<b>Filter Role</b>	<b>Filter Size</b>	<b>Part Number</b>	<b>Price<sup>1</sup></b>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	23.3 mm x 2.0 mm	<a href="#">FF01-457/530/628-23.3-D</a>	\$435
Triple Band Dichroic	22.0 mm x 29.0 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-22x29</a>	\$435
DA/FI/TX-3X-C-L02 (Leica 'Small' set)	\$1,829	Contact Us	
<b>Filter Role</b>	<b>Filter Size</b>	<b>Part Number</b>	<b>Price<sup>1</sup></b>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
\$1,625	Contact Us		
<b>Filter Role</b>	<b>Filter Size</b>	<b>Part Number</b>	<b>Price<sup>1</sup></b>
Single Band Exciter	25 mm threaded ring for Sutter Lambda filter wheel	<a href="#">FF01-387/11-25-STR</a>	\$325
Single Band Exciter	25 mm threaded ring for Sutter Lambda filter wheel	<a href="#">FF01-494/20-25-STR</a>	\$425
Single Band Exciter	25 mm threaded ring for Sutter Lambda filter wheel	<a href="#">FF03-575/25-25-STR</a>	\$325
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435

<sup>1</sup> US domestic pricing only. If you are ordering from outside the US, please contact your nearest regional distributor for the correct list price.

## Complete filter sets mounted in microscope holders/cubes:

These sets are delivered already mounted in microscope filter holders, often called 'cubes', ready to be dropped into your microscope.

### Nikon Quadfluor for microscopes: E200, E400, E600, E800, E1000, TS100, TS100F, TE200, TE300, ME600L, L150A, and some Labophot, Optiphot, and Diaphot series

DA/FI/TX-3X-C-NQF (set mounted in cube) \$1,960 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
Quadfluor cube		<a href="#">NQF</a>	\$395

### Nikon TE 2000 for microscopes: TE 2000, 50i, 55i, 80i, 90i, Eclipse Ti, Ni, and Ci series, and any using the Epi-fluor Illuminator

DA/FI/TX-3X-C-NTE (set mounted in cube) \$1,960 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
TE 2000 cube		<a href="#">NTE</a>	\$395

### Olympus U-MF2 for microscopes: AX70, BX, BX41, BX50, BX51, BX60, BX61, BX50/51WI, BX60/61WI, IX50, IX51, IX70, IX71, IX81

DA/FI/TX-3X-C-OMF (set mounted in cube) \$2,000 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
U-MF2 cube		<a href="#">OMF</a>	\$435

### Olympus U-FF for microscopes: BX53, BX63

DA/FI/TX-3X-C-OFF (set mounted in cube) \$2,000 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
U-FF cube		<a href="#">OFF</a>	\$435

### Zeiss FL Cube EC P+C for microscopes: Axio Imager, AxioStar Plus, Axioskop 40, Axioskop 2 (post-2001), AxioPlan 2i, AxioPlan 2ie, Axiovert 200, Axiovert 40, Axio Observer, Axio Examiner and Axio Scope A1

DA/FI/TX-3X-C-ZHE (set mounted in cube) \$1,840 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
FL Cube EC P+C cube		<a href="#">ZHE</a>	\$275

### Leica DM-K for microscopes: DM-2000, DM-2500, DM-3000, DMI3000 B, DM-4000, DMI4000 B, DM-5000, DM-5500, and DM-6000, DMI6000 B

DA/FI/TX-3X-C-LDMK (set mounted in cube) \$1,915 Contact Us

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	23.3 mm x 2.0 mm	<a href="#">FF01-457/530/628-23.3.D</a>	\$435



Triple Band Dichroic	22.0 mm x 29.0 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-22x29</a>	\$435
DM-K cube		<a href="#">LDMK</a>	\$350

### Leica DMi8 (P-Cube) for microscopes: DMi8

DA/FI/TX-3X-C-LDMP (set mounted in cube) \$2,000 In Stock

Filter Role	Filter Size	Part Number	Price <sup>1</sup>
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-387/11-25</a>	\$305
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF01-494/20-25</a>	\$405
Single Band Exciter	25 mm x 5.0 mm	<a href="#">FF03-575/25-25</a>	\$305
Triple Band Emitter	25 mm x 3.5 mm	<a href="#">FF01-457/530/628-25</a>	\$435
Triple Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	<a href="#">FF436/514/604-Di01-25x36</a>	\$435
DMi8 (P-Cube) cube		<a href="#">LDMP</a>	\$435

1) US domestic pricing only. If you are ordering from outside the US, please contact your nearest [regional distributor](#) for the correct list price.

### Optical Specifications

Specification	Value
Blocking	BrightLine filters have blocking far exceeding OD 6 as needed to ensure a black background, even when using modern low-noise CCD cameras. The blocking is optimized for microscopy applications using our exclusive SpecMaker™ fluorescence filter design.

### General Filter Specifications

Specification	Value
Microscope Compatibility	BrightLine filters are available to fit Leica, Nikon, Olympus, Zeiss, and Aperio microscopes.
Optical Damage Rating	Testing has proven to show no signs of degradation when exposed to at least 6.0 W of power from an unfiltered xenon arc lamp over a 25 mm diameter (corresponding to 1.2 W/cm <sup>2</sup> ) for over 500 hours.

### Physical Filter Specifications

Specification	Value
Scratch-Dig	60-40
Exciter/Emitter Orientation	Arrow on ring indicates preferred direction of propagation of light.
Dichroic Orientation	"Reflective coating side" should face toward light source and sample.

### Fluorophore Compatibility

★★★★ indicates this filter set was specifically optimized for this fluorophore.

★★★ indicates an excellent spectral match between fluorophore and filter set that should result in nearly ideal performance in most situations.

★★ indicates a good match between fluorophore and filter set, with actual performance dependent on other experimental conditions.

Blue	
Fluorophore	Compatibility
1,8-ANS	★★★★
4-methylumbelliferone	★★★
7-hydroxy-4-methylcoumarin	★★★
Alexa Fluor® 405	★★★
<b>AMCA (Aminomethylcoumarin)</b>	★★★★★
ATTO 390	★★★
BD Horizon V450	★★★★
BFP (EBFP)	★★★★
Calcofluor White	★★★
Cascade Blue™	★★★
CellTrace calcein violet	★★★★
<b>DAPI</b>	★★★★★
DiFMU-pH 9.0	★★★
DyLight 405	★★★
ER-Tracker™ Blue-White DPX	★★★
HiLyte Fluor™ 405	★★★
LIVE-DEAD Fixable Violet Dead Cell Stain	★★★★
Marina Blue	★★★
mBBR+GSH	★★★
Pacific Blue™	★★★★

sgBFP™	☆☆☆
SpectrumBlue	☆☆
TagBFP	☆☆
Vybrant DyeCycle Violet	☆☆

☆☆☆☆ indicates this filter set was specifically optimized for this fluorophore.

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☆☆ indicates a good match between fluorophore and filter set, with actual performance dependent on other experimental conditions.

## Green

Fluorophore	Compatibility
5-carboxy-2,7-dichlorofluorescein	☆☆☆
5-FAM (5-carboxyfluorescein)	☆☆☆
6-carboxyrhodamine 6G	☆☆
Acridine Orange (+DNA)	☆☆☆
<b>Alexa Fluor® 488</b>	☆☆☆☆
Alexa Fluor® 500	☆☆☆
Alexa Fluor® 514	☆☆
ATTO 488	☆☆☆
ATTO 495	☆☆☆
BCECF (pH 5.5)	☆☆☆
BCECF (pH 9.0)	☆☆☆
BODIPY FL	☆☆
BODIPY FL-MeOH	☆☆
Calcein	☆☆☆
Calcium Green-1	☆☆☆
CFP2	☆☆
Cy2™	☆☆
CyQUANT GR-DNA	☆☆☆
DAF-FM-NO	☆☆☆
Dendra2 (Green)	☆☆
DiO	☆☆
Dronpa	☆☆☆
DY-505-Phalloidin	☆☆☆
Emerald	☆☆
<b>FITC (Fluorescein)</b>	☆☆☆☆
FIAsH-CCPFCC	☆☆
Fluo-3	☆☆☆
Fluo-4	☆☆☆
Fluorescein dextran	☆☆☆
Fluorescein-pH 8.0	☆☆☆
Fluoro-Emerald	☆☆☆
FluoSpheres Yellow-Green fluorescent microspheres	☆☆☆
GFP (EGFP)	☆☆
Green 496	☆☆☆
Green 500	☆☆☆
HCS LipidTOX Green neutral lipid stain	☆☆
HCS LipidTOX Green phospholipidosis	☆☆☆
HiLyte Fluor™ 488	☆☆☆
LIVE-DEAD Fixable Green Dead Cell Stain	☆☆☆
LysoTracker Green	☆☆
LysoTracker Yellow HCK-123	☆☆
Magnesium Green	☆☆☆
mHoneyDew	☆☆☆
MitoTracker™ Green	☆☆
mWasabi	☆☆
NBD-X (MeOH)	☆☆
NeuroTrace 500/525 Green Fluorescent Nissl Stain	☆☆☆

Oregon Green™ 488	☆☆☆
Oregon Green™ 514	☆☆
PicoGreen	☆☆☆
PKH67	☆☆
Qdot® 525 Nanocrystals	☆☆
Rhodamine 110	☆☆☆
Rhodamine 123	☆☆☆
Rhodamine Green	☆☆☆
Rhodol Green	☆☆☆
Sodium Green	☆☆☆
SpectrumGreen	☆☆☆
SYBR Gold nucleic acid gel stain-DNA	☆☆☆
SYBR Green I nucleic acid gel stain-DNA	☆☆☆
SYBR Safe DNA gel stain-DNA	☆☆☆
SYTO 11	☆☆☆
SYTO 13	☆☆
SYTO 16	☆☆☆
SYTO 9	☆☆
SYTO RNASelect geen fluorescent cell stain	☆☆☆
SYTOX Green-DNA	☆☆☆
TO-PRO-1	☆☆
TOTO-1	☆☆
TurboGFP	☆☆
Venus	☆☆
Vybrant DyeCycle Green	☆☆☆
Vybrant DyeCycle Orange	☆☆
YFP (yellow GFP)	☆☆
YO-PRO-1	☆☆
YOYO-1	☆☆

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☆☆☆ indicates an excellent spectral match between fluorophore and filter set that should result in nearly ideal performance in most situations.

☆☆ indicates a good match between fluorophore and filter set, with actual performance dependent on other experimental conditions.

## Red

Fluorophore	Compatibility
2-dodecylresorufin-lipid	☆☆
5-ROX (carboxy-X-rhodamine)	☆☆
7-AAD	☆☆
Alexa Fluor® 568	☆☆
Alexa Fluor® 594	☆☆☆
AsRed 2	☆☆
ATTO 565	☆☆
ATTO 590	☆☆☆
ATTO 594	☆☆
BOBO™-3	☆☆
BODIPY TR-X phalloidin	☆☆☆
Calcium Crimson	☆☆☆
CellTrace BODIPY TR methyl ester	☆☆
CellTracker Red CMTPX	☆☆☆
Cy3.5™	☆☆
DsRed	☆☆
dTomato	☆☆
DY-590	☆☆
DyLight 594	☆☆☆
FluoSpheres Red fluorescent microspheres	☆☆
HcRed1	☆☆
HCS LipidTOX Red neutral lipid stain	☆☆☆
HCS LipidTOX Red phospholipidosis	☆☆☆



HiLyte Fluor™ 594	☆☆☆
KFP-Red	☆☆
LIVE-DEAD Fixable Red Dead Cell Stain	☆☆
LysoTracker Red	☆☆
mApple	☆☆
mCherry	☆☆☆
MitoTracker™ Red	☆☆
mKate2	☆☆☆
mPlum	☆☆
mRFP1	☆☆☆
mRuby	☆☆
mStrawberry	☆☆
mTangerine	☆☆
Nile red-phospholipid	☆☆☆
pHrodo™, succinimidyl ester	☆☆
Propidium Iodide (PI)	☆☆
Qdot® 625 Nanocrystals	☆☆
ReAsH-CCPGCC	☆☆
Red 580	☆☆
Rhodamine Red-X	☆☆
SNARF (carboxy) 514 Excitation pH 9	☆☆☆
SNARF-1 488nm (ph 6.0)	☆☆
SNARF-1 488nm (ph 9.0)	☆☆☆
SNARF-1 514nm (ph 6.0)	☆☆
SNARF-1 514nm (ph 9.0)	☆☆☆
SpectrumRed	☆☆
SYTO 17	☆☆
Texas Red dextran	☆☆☆
Texas Red DHPE	☆☆☆
Texas Red®	☆☆
TurboFP635(Katushka)	☆☆☆
X-Rhod-1 Indicator	☆☆
YO-PRO-3	☆☆
YOYO-3	☆☆

## Technical Information

Topic	Description
<a href="#">High Performance Microscopy</a>	An overview of high performance microscopy, including solutions from Semrock and additional learning resources.
<a href="#">Spectral Modeling in Fluorescence Microscopy</a>	Discusses various sources of noise in fluorescence microscopy and how to maximize signal-to-noise ratios using software, sample preparation and optical filter selection
<a href="#">New Optical Filters Improve High-Speed Multicolor Fluorescence Imaging</a>	Turan Erdogan, PhD, Semrock Inc., BioPhotonics, March 2006 Compares benefits and drawbacks of full multiband, pinkel and sedat filter sets for high-speed multicolor fluorescence imaging
<a href="#">Multiband Filter Set Terminology</a>	Compares benefits and drawbacks of full multiband, pinkel and sedat filter sets
<a href="#">Orientation of Filters in a Microscope</a>	A guide to properly orienting Semrock filters based on the filter markings.
<a href="#">Introduction to Fluorescence Filters</a>	Shows how optical filters are used in a traditional fluorescence microscope and describes important factors to consider when choosing optical filters.
<a href="#">Filter Reliability</a>	Compares the performance and reliability of hard coated filters to traditional soft-coated filters and provides information about the testing standards for Semrock filters
<a href="#">Cube Assembly Instructions</a>	PDF and video instruction for installing filters into popular filter cubes
<a href="#">Cleaning Optical Filters</a>	Instructions for cleaning hard coated optical filters