

BrightLine® Sedat filter set, optimized for Green Fluorescent Protein & DsRed and other like fluorophores

Part Number: GFP/DsRed-2X2M-C-000



Semrock, Inc

3625 Buffalo Road, Suite 6
Rochester, New York 14624

Main Phone: +1 585.594.7050 (worldwide)
Toll Free Phone: 866.736.7625 (866-SEMROCK)
(within US and Canada)



BrightLine® Sedat filter set, optimized for Green Fluorescent Protein & DsRed and other like fluorophores

This 5-filter "Sedat" set is ideal for high-speed sequential imaging GFP and DsRed with high brightness, extremely low crosstalk, and superb signal-to-noise ratio. The set is also ideal for samples dual-labeled with FITC and TRITC, or GFP and Cy3, among o

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 ¹	Stock Status	
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-000 (Standard size set, fits most microscopes)	\$1,435	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-L01 (Leica 'Large' set)	\$1,435	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	22.0 mm x 29.0 mm x 1.1 mm	FF493/574-Di01-22x29	\$335
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-L02 (Leica 'Small' set)	\$1,699	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-000-X32 (Standard size set, fits most microscopes)	\$1,781	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-L01-X32 (Leica 'Large' set)	\$1,781	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
<input checked="" type="checkbox"/> GFP/DsRed-2X2M-C-L02-X32 (Leica 'Small' set)	\$2,081	Contact Us	
Filter Role	Filter Size	Part Number	Price¹
\$1,515	Contact Us		
Filter Role	Filter Size	Part Number	Price¹

Filter Role	Filter Size	Part Number	Price
Single Band Exciter	25 mm threaded ring for Sutter Lambda filter wheel	FF01-470/22-25-STR	\$325
Single Band Exciter	25 mm threaded ring for Sutter Lambda filter wheel	FF01-556/20-25-STR	\$375
Single Band Emitter	25 mm threaded ring for Sutter Lambda filter wheel	FF01-514/30-25-STR	\$375
Single Band Emitter	25 mm threaded ring for Sutter Lambda filter wheel	FF02-617/73-25-STR	\$375
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335

1) 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

GFP/DsRed-2X2M-C-NQF (set mounted in cube) \$1,830 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
Quadfluor cube		NQF	\$395

GFP/DsRed-2X2M-C-NQF-X32 (set mounted in cube) \$2,180 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Quadfluor cube		NQF	\$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

GFP/DsRed-2X2M-C-NTE (set mounted in cube) \$1,830 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
TE 2000 cube		NTE	\$395

GFP/DsRed-2X2M-C-NTE-X32 (set mounted in cube) \$2,180 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
TE 2000 cube		NTE	\$395

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

GFP/DsRed-2X2M-C-OMF (set mounted in cube) \$1,870 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
U-MF2 cube		OMF	\$435

GFP/DsRed-2X2M-C-OMF-X32 (set mounted in cube) \$2,240 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
U-MF2 cube		OMF	\$435

Olympus U-FF for microscopes: BX53, BX63

GFP/DsRed-2X2M-C-OFF (set mounted in cube) \$1,870 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335

U-FF cube	25.2 mm x 35.6 mm x 1.1 mm	FF01-514/30-25	\$435
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GFP/DsRed-2X2M-C-OFF-X32 (set mounted in cube) \$2,240 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
U-FF cube		OFF	\$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

GFP/DsRed-2X2M-C-ZHE (set mounted in cube) \$1,710 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
FL Cube EC P+C cube		ZHE	\$275

GFP/DsRed-2X2M-C-ZHE-X32 (set mounted in cube) \$2,110 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
FL Cube EC P+C cube		ZHE	\$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

GFP/DsRed-2X2M-C-LDMK (set mounted in cube) \$1,785 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	22.0 mm x 29.0 mm x 1.1 mm	FF493/574-Di01-22x29	\$335
DM-K cube		LDMK	\$350

GFP/DsRed-2X2M-C-LDMK-X32 (set mounted in cube) \$2,210 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
DM-K cube		LDMK	\$350

Leica DMI8 (P-Cube) for microscopes: DMI8

GFP/DsRed-2X2M-C-LDMP (set mounted in cube) \$1,870 [Contact Us](#)

Filter Role	Filter Size	Part Number	Price ¹
Single Band Exciter	25 mm x 5.0 mm	FF01-470/22-25	\$305
Single Band Exciter	25 mm x 5.0 mm	FF01-556/20-25	\$355
Single Band Emitter	25 mm x 3.5 mm	FF01-514/30-25	\$355
Single Band Emitter	25 mm x 5.0 mm	FF02-617/73-25	\$355
Dual Band Dichroic	25.2 mm x 35.6 mm x 1.1 mm	FF493/574-Di01-25x36	\$335
DMI8 (P-Cube) cube		LDMP	\$435

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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 ²) 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.

Green

Fluorophore	Compatibility
5-FAM (5-carboxyfluorescein)	☆☆
Acridine Orange (+DNA)	☆☆
Acridine Yellow	☆☆
Alexa Fluor® 430	☆☆
Alexa Fluor® 488	☆☆☆
AmCyan1	☆☆☆
ATTO 465	☆☆
ATTO 488	☆☆
ATTO 495	☆☆
BCECF (pH 5.5)	☆☆☆
BCECF (pH 9.0)	☆☆
BOBO™-1	☆☆
BODIPY FL	☆☆
Calcein	☆☆
CFP (ECFP)	☆☆
CFP2	☆☆
Cy2™	☆☆☆
CyQUANT GR-DNA	☆☆
DAF-FM-NO	☆☆
Dendra2 (Green)	☆☆
DiO	☆☆
Dronpa	☆☆
ECFP	☆☆
ecliptic pHluorin pH5.5	☆☆☆
Emerald	☆☆
evoglow-Bs1	☆☆
FITC (Fluorescein)	☆☆☆☆
Fluo-4	☆☆
Fluorescein dextran	☆☆
Fluorescein-pH 8.0	☆☆
Fluoro-Emerald	☆☆
FluoSpheres Yellow-Green fluorescent microspheres	☆☆
GFP (EGFP)	☆☆☆☆
Green 496	☆☆
Green 500	☆☆
HiLyte Fluor™ 488	☆☆
LIVE-DEAD Fixable Green Dead Cell Stain	☆☆
LysoSensor Green	☆☆
LysoTracker Green	☆☆
LysoTracker Yellow HCK-123	☆☆
mHoneyDew	☆☆
MitoTracker™ Green	☆☆
mTFP1	☆☆
mWasabi	☆☆
NBD-X (MeOH)	☆☆
NeuroTrace 500/525 Green Fluorescent Nissl Stain	☆☆
Oregon Green™ 488	☆☆
PicoGreen	☆☆
PKH67	☆☆☆
Qdot® 525 Nanocrystals	☆☆

Rhodamine 110	☆☆
Rhodamine Green	☆☆
Rhodol Green	☆☆
rsGFP (red shifted GFP, S65T)	☆☆☆
sgGFP™ (super glow GFP)	☆☆☆
SYBR Green I nucleic acid gel stain-DNA	☆☆
SYTO 13	☆☆
SYTO 16	☆☆
SYTO 45	☆☆
SYTO 9	☆☆☆
SYTO RNASelect geen fluorescent cell stain	☆☆
SYTOX Green-DNA	☆☆
TagCFP	☆☆
TurboGFP	☆☆☆
wtGFP (wild type GFP, non-UV excitation)	☆☆☆
YO-PRO-1	☆☆
YOYO-1	☆☆

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☆☆ 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)	☆☆
5-TAMRA (5-carboxytetramethylrhodamine, pH 7.0)	☆☆☆
7-AAD	☆☆☆
Alexa Fluor® 546	☆☆
Alexa Fluor® 555	☆☆
Alexa Fluor® 568	☆☆☆☆
Alexa Fluor® 594	☆☆☆
Amplex UltraRed peroxidation product-pH 7.5	☆☆☆
AsRed 2	☆☆
ATTO 550	☆☆☆
ATTO 565	☆☆☆
ATTO 590	☆☆
BOBO™-3	☆☆☆
BODIPY TMR-X	☆☆
BODIPY TR-X (MeOH)	☆☆
BODIPY TR-X phalloidin	☆☆
Calcium Crimson	☆☆
Calcium Orange	☆☆☆
CellTrace BODIPY TR methyl ester	☆☆
CellTracker Red CMTPX	☆☆
Cy3.5™	☆☆
Cy3™	☆☆☆
DDAO	☆☆
Dendra2 (Red)	☆☆
Dil	☆☆
DsRed	☆☆☆☆
DsRed-Express	☆☆☆
dTomato	☆☆☆
DY-590	☆☆
DyLight 594	☆☆
Ethidium bromide	☆☆
Ethidium homodimer	☆☆
FluoSpheres Red fluorescent microspheres	☆☆
HcRed1	☆☆

HCS LipidTOX Red neutral lipid stain	☆☆
HCS LipidTOX Red phospholipidosis	☆☆
HiLyte Fluor™ 594	☆☆
KFP-Red	☆☆
LOLO-1	☆☆☆
LyoTracker Red	☆☆
Magnesium Orange	☆☆☆
mApple	☆☆☆
mCherry	☆☆
Merocyanine 540	☆☆☆
MitoTracker™ Orange	☆☆☆
MitoTracker™ Red	☆☆
mKate2	☆☆
mOrange	☆☆
mOrange2	☆☆
mPlum	☆☆
mRFP	☆☆☆
mRFP1	☆☆
mRuby	☆☆☆
mStrawberry	☆☆
mTangerine	☆☆☆
Nile red-phospholipid	☆☆☆
Nile red-triglyceride	☆☆
OFP	☆☆
Orange 552	☆☆☆
pHrodo™, succinimidyl ester	☆☆☆
POPO-3	☆☆
Propidium Iodide (PI)	☆☆☆
Pro-Q Diamond	☆☆☆
Qdot® 585 Nanocrystals	☆☆
Qdot® 605 Nanocrystals	☆☆
Qdot® 625 Nanocrystals	☆☆
Qdot® 655 Nanocrystals	☆☆
ReAsH-CCPGCC	☆☆
Red 580	☆☆
Resorufin	☆☆☆
Rhod-2	☆☆☆
Rhodamine phalloidin	☆☆☆
Rhodamine Red-X	☆☆
R-phycoerythrin	☆☆☆
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)	☆☆☆
SpectrumOrange	☆☆☆
Sulforhodamine 101-EtOH	☆☆
SYTOX Orange	☆☆
Tetramethylrhodamine dextran	☆☆☆
Texas Red dextran	☆☆
Texas Red DHPE	☆☆
Texas Red-X®	☆☆☆
TRITC (Tetramethylrhodamine)	☆☆☆☆☆
TurboFP635(Katushka)	☆☆
TurboRFP	☆☆
X-Rhod-1 Indicator	☆☆

Technical Information

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