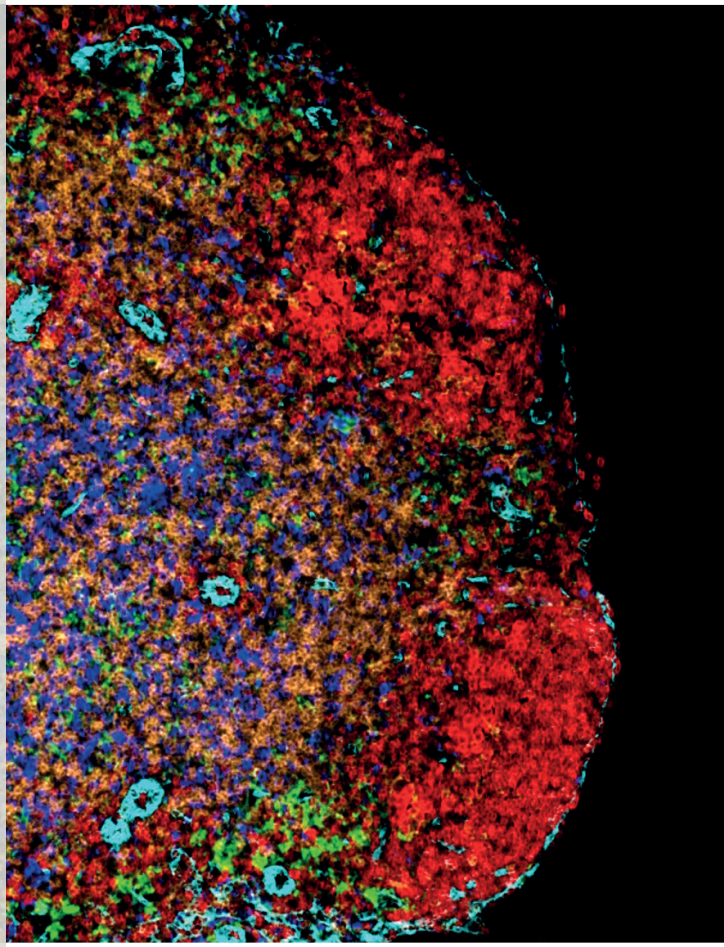
SpectraSplit®7

Patented multiband filters with exceptional separation of 7 fluorochrome classes

KROMNIGON

Produce sharp and clean images without spectral unmixing

SpectraSplit® 7 are patented filter sets for 7-channel multicolor microscopy. Optimized to prevent spillover noise and to maximize the signal strength from seven frequently utilized fluorochrome classes, including Alexa Fluor®, Opal™, and Cy3/Cy5/Cy7 dyes.



SpectraSplit®

www.kromnigon.com

High fluorochrome flexibility
Your choice of fluorochromes; select any from each class

Fast imaging
No spectral unmixing needed

Upgrades any microscope
Compatible with most standard and scanning fluorescence microscopes

Crisp and clean images
Less than 0.5% spillover between channels
Very high signal-to-noise ratios

SpectraSplit® 7 maximizes the capacity of your microscope

Bandpass filter sets for the entire spectra

SpectraSplit® 7 are patented filter sets that specifically separates seven of the most commonly used fluorochrome classes in immuno-histochemistry. No additional software and no computational spectral unmixing are required. Hence, SpectraSplit® 7 immediately empowers your microscope with seven independent color channels that each generates crystal clear images. Importantly, you do not need to be a fluorochrome expert or microscope guru to produce 7-color images – just stain your samples and visualize with SpectraSplit® 7.

Compatible with a large number of common fluorochromes

Superior separation of seven fluorochrome classes

SpectraSplit® 7 is fully compatible with commonly used fluorochromes, including Alexa Fluor® dyes, traditional dyes like FITC/Cy3/Cy5/Cy7, and many of the Opal™ dyes. This provides a wide range of options for fluorochromes when setting up a 7-color IHC.

Examples of fluorochromes compatible with SpectraSplit® 7

Channel	Traditional dyes	Kromnigon StreptaClick® dyes	Thermo Fisher	Biotium	Thermo Fisher	Atto-tec	Akoya	Ultivue	Sirigen/BD	Protein expression fluorophores
S-Split Blue (375)	DAPI	DAPI, Tyramide 405	Alexa Fluor 405	CF405	Dylight 405		DAPI	DAPI	BV421	Hoecht
S-Split Cyan (435)	CFP	Tyramide CF®430		CF430		Atto425	Opal p.480		BV480	cCFP
S-Split Green (490)	FITC	Tyramide 488, Color 480	Alexa Fluor 4888	CF488	DyLight 488	Atto488	Opal 520	Ultivue, FITC		eGFP
S-Split Orange (545)	Cy3/TRITC	Tyramide 555, Color Atto 542	Alexa Fluor 546	CF555	DyLight 549	Atto542	Opal 570	Ultivue, Cy3		mOrange/mRFP
S-Split Red (590)	Texas Red	Tyramide 594, Color 594	Alexa Fluor 594	CF594	DyLight 594	Atto590	Opal 620			mCherry/mRaspberry/mPlum
S-Split Far-red (650)	Cy5/Cy5.5	Tyramide 647, Color 647	Alexa Fluor 647	CF647/680	DyLight 649	Atto647/665	Opal 690	Ultivue, Cy5		miRFP703
S-Split Infra-red (740)	Cy7	iFluor 750 Styramide	Alexa Fluor 750	CF750	DyLight 750	Atto740	Opal p.780	Ultivue, Cy7		

Cy3, Cy5, Cy7 are registered trademarks of GE Healthcare, Alexa Fluor and DyLight dyes are trademarks of Thermo Fisher Scientific, CF dyes are trademarks of Biotium, Atto dyes are trademarks of Atto-tec, Opal dyes are trademarks of Akoya Biosciences, Brilliant Violet dyes are trademarks of Sirigen/BD. StreptaClick® is a trademark of Kromnigon.

No bleed-through between channels

Requires no spectral unmixing or other bleed-trough corrections

The SpectraSplit® 7 filter sets separate the fluorescence signals of seven different fluorochrome classes, with less than 0.5% spillover between channels. As a result, high-contrast images are generated without the need for spectral unmixing or any other bleed-through corrections. Spectral unmixing techniques can be time-consuming, require single-labeled controls, and increase the risk of over- or under-corrections. In contrast, SpectraSplit® 7 directly blocks bleed-through noise and therefore does not require any post processing.

What you see is what you get.

"We've imaged over 2,500 highly-multiplexed slides with the Spectra Split® 7 filters in the past year and the data in every single sample set is crisp and clean. Our users do a large amount of RNAScope staining utilizing the Opal dye set and it's been a game changer for us to have the SpectraSplit filters that are precisely matched to these dyes. The imaged samples have been a wide range of tissue sections and cultured cells and none of my other microscopes, both filter-based and with spectral detection, match the Opals as well as SpectraSplit® 7."

Christina Baer, Director, SCOPE Imaging Facility,
UMass Chan Medical School, Worcester MA

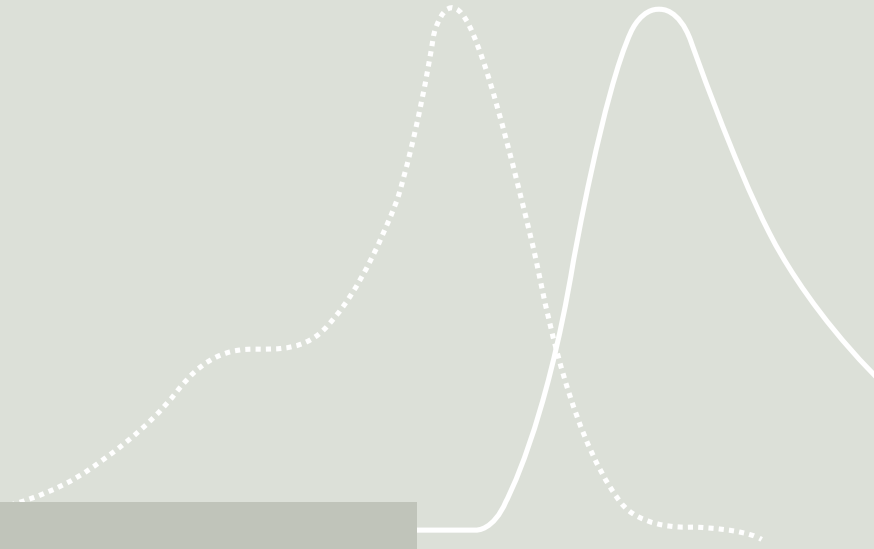
Microscopes and light sources

SpectraSplit® 7 is designed to work with both standard and scanning fluorescence microscopes. It is compatible with various lighting sources including pE-800 and pE-4000 from CoolLED, X-Cite NOVEM from Excelitas, and the new SPECTRA X Light Engine from Lumencor.

Configuration

SpectraSplit® 7 contains four filter sets. Each filter set includes one excitation filter, one emission filter (25 mm in diameter), and one dichroic mirror (25.5 x 36.0 x 1 mm).

Set 1: Triple-band set (375/495/740)
Set 2: Double-band set (435/650)
Set 3: Single-band set (545)
Set 4: Single-band set (590)



"Our company Offspring Biosciences supports project teams in the pharma industry with histology-based contract services. Kromnigons SpectraSplit® filters have allowed us to significantly expand our capability to perform multiplexed immunofluorescence analyses with excellent separation between the fluorophores. We can highly recommend them."

Anders Dahlstrand, CEO and co-founder of Offspring Bioscience

Kromnigon
c/o AstraZeneca R&D
Pepparedsleden 1
SE-43183 Mölndal
Sweden

Kromnigon.com

KROMNIGON
Multiplex IHC made easy