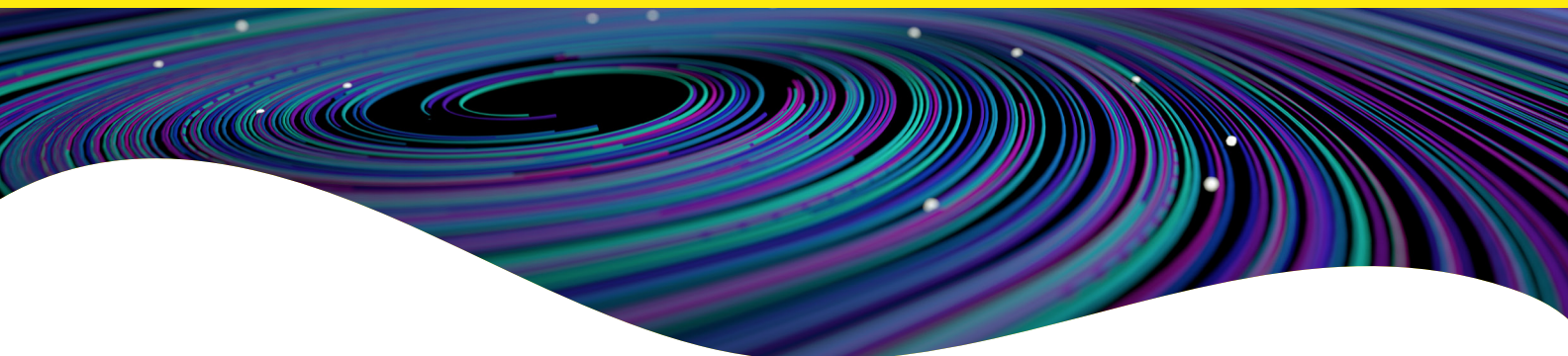# revvity

HTRF setup recommendations for Spark using filters.

HTRF Europium cryptate donor / red acceptor readout setup recommendations for Spark using filters

Two sequential measurements should be carried out: at 620 nm for the cryptate emission, and at 665 nm for the specific signal emitted by the acceptor (XL665 or d2) to calculate the 665/620 signal ratio.

Spark must be optically equipped for HTRF™ readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control™ software.

Note: Setup recommendations below are for filter (Ex) / filter (Em) configuration only.

	Measurement 1	Measurement 2
Excitation filter	320 (25) nm	320 (25) nm
Emission filter	620 (10) nm	665 (8) nm
Mirror	Dichroic 510	Dichroic 510
Lag time	100 µs	100 µs
Integration time	400 µs	400 µs
Flashes	75	75
Gain	Optimal gain	Optimal gain
Z	Must be calculated on the well giving the highest signal	Must be calculated on the well giving the highest signal

For others configurations involving monochromator (FM,MF,MM), please contact Tecan to determine the version of your Spark reader (standard or enhanced). Then refer to other setups presented in the same web section.

HTRF Terbium cryptate donor / green acceptor readout setup recommendations for Spark using filters

Two sequential measurements should be carried out: at 620 nm for the cryptate emission, and at 520 nm for the specific signal emitted by the acceptor to calculate the 520/620 signal ratio.

Spark must be optically equipped for HTRF readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control software.

Note: Setup recommendations below are for filter (Ex) / filter (Em) configuration only.

	Measurement 1	Measurement 2
Excitation filter	340 (35) nm	340 (35) nm
Emission filter	620 (10) nm	520 (10) nm
Mirror	Dichroic 510	Dichroic 510
Lag time	100 µs	100 µs
Integration time	200 µs	200 µs
Flashes	75	75
Gain	Optimal gain	Optimal gain
Z	Must be calculated on the well giving the highest signal	Must be calculated on the well giving the highest signal

For others configurations involving monochromator (FM,MF,MM), please contact Tecan to determine the version of your Spark reader (standard or enhanced). Then refer to other setups presented in the same web section.

HTRF Terbium cryptate donor / red acceptor readout setup recommendations for Spark using filters

Two sequential measurements should be carried out: at 620 nm for the cryptate emission, and at 665 nm for the specific signal emitted by the acceptor (XL665 or d2) to calculate the 665/620 signal ratio.

Spark must be optically equipped for HTRF readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control software.

Note: Setup recommendations below are for filter (Ex) / filter (Em) configuration only.

	Measurement 1	Measurement 2
Excitation filter	340 (35) nm	340 (35) nm
Emission filter	620 (10) nm	665 (8) nm
Mirror	Dichroic 510	Dichroic 510
Lag time	100 µs	100 µs
Integration time	200 µs	200 µs
Flashes	75	75
Gain	Optimal gain	Optimal gain
Z	Must be calculated on the well giving the highest signal	Must be calculated on the well giving the highest signal

For others configurations involving monochromator (FM,MF,MM), please contact Tecan to determine the version of your Spark reader (standard or enhanced). Then refer to other setups presented in the same web section.

HTRF Europium cryptate donor / red acceptor readout setup recommendations for Spark (enhanced version) using the monochromator

Two sequential measurements should be carried out at 620 nm for the cryptate emission, and at 665 nm for the specific signal emitted by the acceptor (XL665 or d2) to calculate the 665/620 signal ratio.

The spark must be optically equipped for HTRF readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control software. In particular, these parameters should be entered as defined in the table below.

Note: For configuration involving monochromator, please contact Tecan to determine the version of your Spark reader: standard or enhanced. Only enhanced version is HTRF compatible.

Configuration : (Excitation/Emission)	Configuration of optical head for excitation and emission selection		
	Filter/Monochromator (F/M)	Monochromator/Filter (M/F)	Monochromator/Monochromator (M/M)
Excitation wavelength	320 nm/20 nm	320 nm/25 nm	320 nm/25 nm
Acceptor emission wavelength	665 nm/10 nm	665 nm/8 nm	665 nm/10 nm
Donor emission wavelength	620 nm/10 nm	620 nm/10 nm	620 nm/10 nm
Flashes	50		
Lag time	100 µs		
Integration time	400 µs		
Mirror	510 dichroic		
Gain	Optimal gain		
Z optimization	Calculated from well giving the highest signal		
Plate color	**White plate only**		

HTRF Terbium cryptate donor / green acceptor readout setup recommendations for Spark (enhanced version) using the monochromator

Two sequential measurements should be carried out at 620 nm for the cryptate emission, and at 520 nm for the specific signal emitted by the acceptor to calculate the 665/620 signal ratio.

The spark must be optically equipped for HTRF readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control software. In particular, these parameters should be entered as defined in the table below.

Note: For configuration involving monochromator, please contact Tecan to determine the version of your Spark reader: standard or enhanced. Only enhanced version is HTRF compatible.

Configuration : (Excitation/Emission)	Configuration of optical head for excitation and emission selection		
	Filter/Monochromator (F/M)	Monochromator/Filter (M/F)	Monochromator/Monochromator (M/M)
Excitation wavelength	340 nm/35 nm	340 nm/30 nm	340 nm/30 nm
Acceptor emission wavelength	520 nm/10 nm	520 nm/10 nm	520 nm/10 nm
Donor emission wavelength	620 nm/10 nm	620 nm/10 nm	620 nm/10 nm
Flashes	50		
Lag time	100 µs		
Integration time	400 µs		
Mirror	510 dichroic		
Gain	Optimal gain		
Z optimization	Calculated from well giving the highest signal		
Plate color	**White plate only**		

HTRF Terbium cryptate donor / red acceptor readout setup recommendations for Spark (enhanced version) using the monochromator

Two sequential measurements should be carried out at 620 nm for the cryptate emission, and at 665 nm for the specific signal emitted by the acceptor (XL665 or d2) to calculate the 665/620 signal ratio.

The spark must be optically equipped for HTRF readout. Spark readers must be appropriately configured for HTRF readout by setting up the measurement conditions in the Spark Control software. In particular, these parameters should be entered as defined in the table below.

Note: For configuration involving monochromator, please contact Tecan to determine the version of your Spark reader: standard or enhanced. Only enhanced version is HTRF compatible.

	Configuration of optical head for excitation and emission selection		
Configuration : (Excitation/Emission)	Filter/Monochromator (F/M)	Monochromator/Filter (M/F)	Monochromator/Monochromator (M/M)
Excitation wavelength	340 nm/35 nm	340 nm/35 nm	340 nm/35 nm
Acceptor emission wavelength	665 nm/10 nm	665 nm/8 nm	665 nm/10 nm
Donor emission wavelength	620 nm/10 nm	620 nm/10 nm	620 nm/10 nm
Flashes	50		
Lag time	100 µs		
Integration time	400 µs		
Mirror	510 dichroic		
Gain	Optimal gain		
Z optimization	Calculated from well giving the highest signal		
Plate color	**White plate only**		

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