

# Infinite<sup>®</sup> 200 PRO

## Fluorescence and Absorbance filters.



The listed fluorescence and absorbance filters are suitable for Infinite 200 PRO multimode readers equipped with filter optics.

Fluorescence		Absorbance
Wavelength (Bandwidth)	Wavelength (Bandwidth)	Wavelength (Bandwidth)
280 nm (20 nm)	544 nm (25 nm)	230 nm
320 nm (25 nm)	550 nm (10 nm)	260 nm (5 nm)
340 nm (10 nm)	560 nm (10 nm)	280 nm (5 nm)
340 nm (20 nm)	560 nm (20 nm)	340 nm
340 nm (35nm)	580 nm (20 nm)	370 nm
360 nm (35 nm)	580 nm (30 nm)	405 nm
380 nm (10 nm)	590 nm (10 nm)	410 nm
380 nm (20 nm)	590 nm (20 nm)	415 nm
400 nm (20 nm)	595 nm (35 nm)	420 nm
415 nm (20 nm)	610 nm (20 nm)	430 nm
420 nm (10 nm)	612 nm +/- 2 nm (10 nm)	450 nm
430 nm (20 nm)	620 nm (10 nm)	492 nm
430 nm (35 nm)	620 nm (20 nm)	540 nm
448 nm (7 nm)	625 nm (35 nm)	550 nm
460 nm (10 nm)	635 nm (35 nm)	560 nm
460 nm (20 nm)	665 nm (8.5 nm)	570 nm
465 nm (35 nm)	670 nm (25 nm)	580 nm
485 nm (20 nm)	670 nm (40 nm)	590 nm
495 nm (10 nm)	680 nm (30 nm)	595 nm
505 nm (20 nm)	720 nm (40 nm)	600 nm
510 nm (10 nm)	740 nm (25 nm)	610 nm
510 nm (25 nm)		620 nm
520 nm (10 nm)		630 nm
530 nm (25nm)		650 nm
535 nm (10 nm)		690 nm
535 nm (25 nm)		750 nm
535 nm (35 nm)		900 nm
540 nm (25 nm)		1000 nm



## How to select a suitable filter pair for a fluorescent dye

- 1) Obtain the excitation and emission maxima from the dye's data sheet, suitable literature or database (eg. [https://www.nightsea.com/sfa-sharing/fluorescence-spectra-viewers\\*](https://www.nightsea.com/sfa-sharing/fluorescence-spectra-viewers*)).
- 2) Select filters with wavelength properties (WL + BW) covering the excitation or emission maxima.
- 3) Check the filter selection for spectral overlap using the following formula:

$$WL_{EM} - BW_{EM} - WL_{EX} - BW_{EX} = \geq 5 \text{ nm}$$

WL = Wavelength of the filter      EX = Excitation

BW = Bandwidth of the filter      EM = Emission

At least 5 nm distance is recommended between the upper end of the spectral range of the excitation filter ( $WL_{EX} + BW_{EX}$ ) and the lower end of the spectral range of the emission filter ( $WL_{EM} - BW_{EM}$ ).

- 4) Evaluate and validate the selected filters for your specific assay and use.

If no suitable filters are available in the list, please contact your local Tecan sales representative.

### Example: fluorescein

- Excitation maximum: 489 nm
- Emission maximum: 517 nm
- Recommended excitation filter: 485 nm (20 nm)
- Recommended emission filter: 535 nm (25 nm)

$$535 - 25 - 485 - 20 = \geq 5 \text{ nm}$$

The recommended filters for fluorescein cover the respective maxima (excitation and emission), and show the recommended minimal spectral distance of 5 nm.

### Important information:

Instrument measurement specifications are tested and validated for specific dyes and filters only, as stated in the instructions for use for the instrument. Measurement limits may be different for other dyes and filters. Users must always independently evaluate and validate the suitability of filters for their intended use.

\* Please note that Tecan is not responsible for the content of this webpage.

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