

Multi-Filter Functionality – Upgrade for f-NTA

Versatile Detection Options for ZetaView® Classic, TWIN and QUATT

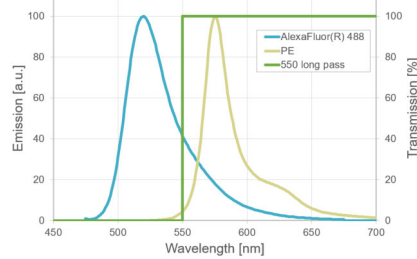
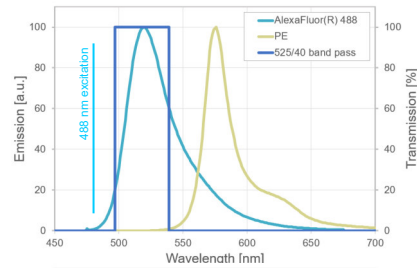
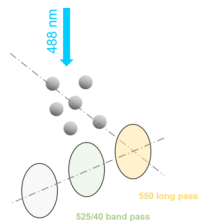
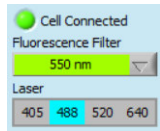
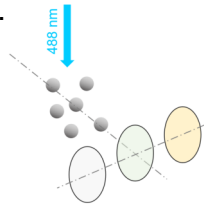
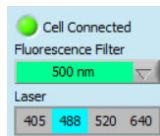


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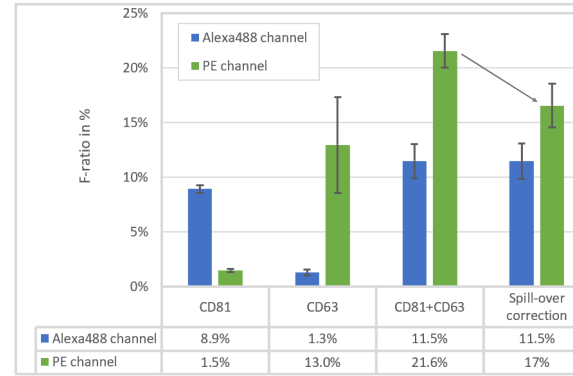
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Introduction

Fluorescent Nanoparticle Tracking Analysis (f-NTA) enables the user to gain biospecific concentration. The support of several filters especially for single laser instruments expand the range of applications.

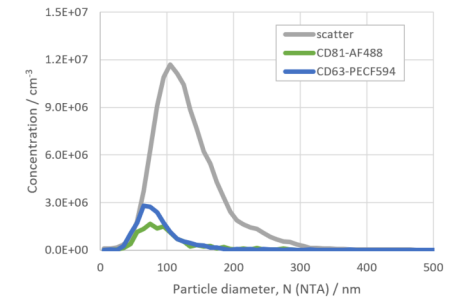


Double Staining – One Laser



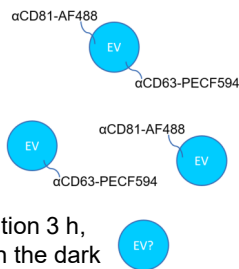
Above: comparison of single staining results of CD81 and CD63 with double staining experiment (CD81+CD63). Due to the spill-over of AlexaFluor® 488 into the PE channel the signal has been corrected according to the emission properties (numerically calculated to 23%).

Below: particle size distribution in scatter, AlexaFluor® 488 and PE channel on the same sample by NTA. While scatter gives total particles, the EV population peak is significantly smaller.



Materials and Methods

NTA: ZetaView® Classic 488 nm laser, 525/40 band-pass and 550 cut-off filter, ZetaView Software 8.5.12 to support multi-filter feature.



Incubation 3 h, 25°C in the dark

HCT116-EVs (HansaBioMed LTD), reconstituted in water, vortexing 30 s.

Antibodies:
CD63-PECF594 (H5C6)
CD81-AlexaFluor® 488 (FAB4615)

Conclusions

- NTA scatter measures **total particle concentration**, NTA fluorescence gives bio-specific concentration. Both results are needed to estimate **sample purity**.
- Multi-filter feature enables **single laser** instruments to quantify double staining.
- Available upgrade for PMX110, 120, 220 and 420 ZetaView® instruments.



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