

ZetaView® Evolution
Your **EV** Solution

**PARTICLE
METRIX**

analytik

**Next generation Nanoparticle Tracking Analyzer -
made to explore the **colorful** nanocosmos**



Full Extracellular Vesicle Characterization:

- Calibration free size and concentration determination
- Sensitivity improved fluorescence NTA (F-NTA) with up to 4 lasers and 11 fluorescence channels
- Colocalization NTA (C-NTA)
- Zeta potential measurement
- Concentration Scanning Technology

Size



Fluorescence



Colocalization



**Zeta
Potential**



**Sub-
populations**

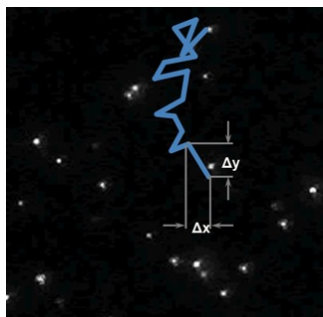


Concentration



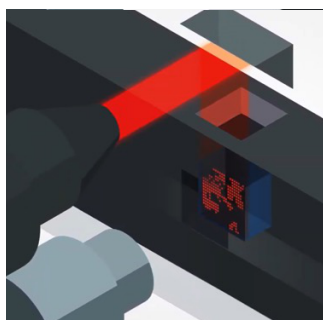
ZetaView® Evolution

Nanoparticle Tracking Analysis



Nanoparticle Tracking Analysis (NTA) is a widely used technique for characterizing extracellular vesicles (EVs). By tracking the Brownian motion of individual EVs under laser illumination, NTA determines their **size distribution** and particle **concentration** in real time. This single-particle approach allows for accurate measurement of EV populations. NTA is particularly valuable due to its ability to analyze **fluorescent** subpopulations (F-NTA), providing deeper insights into EV size profiles and abundance in various biological contexts.

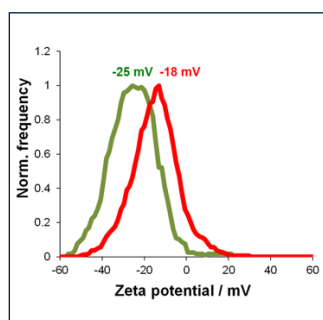
New Concentration Scanning Technology



Our new innovative Concentration Scanning Technology revolutionizes nanoparticle concentration measurements. The advanced technology captures all particles by scanning the entire measurement volume. This enables:

- **Calibration free** measurements
- Direct comparability between different sample types
- Direct comparability between fluorescence and scatter channels
- Precise, reproducible results across a wide concentration range:
10⁵ – 10⁹ particles/ml

Zeta potential

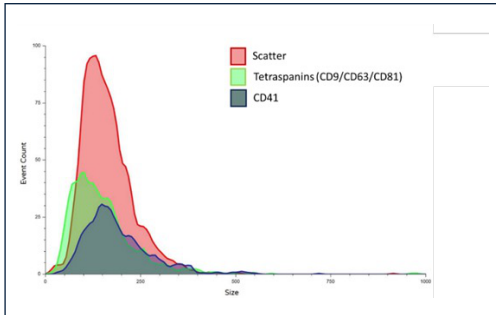


Zeta potential is a measure of the surface charge of particles in suspension. It plays a key role in understanding the **stability** of EVs in solution. A high absolute zeta potential (below -20mV) indicates strong electrostatic repulsion between vesicles, helping to **prevent aggregation**. In EV research, zeta potential is also used to assess surface properties, purity, and changes due to modifications such as surface functionalization or isolation methods.

The ZetaView® Evolution can measure Zeta potential directly inside its quartz glass measurement cell – no need for disposables.



F-NTA: measure up to 11 subpopulations in your sample



EVs isolated from human platelets, stained with F-NTA Tetraspanin Detection Kit 520 (700382) and CD41-AF488

By using the fluorescence mode (F-NTA), more specific results can be obtained, since impurities like salt precipitates or protein aggregates do not impact the measurement result. Our ZetaView® Evolution features:

- Up to **4 lasers**: 405nm, 488nm, 520nm and 640nm or 660nm
- Up to **11 fluorescence channels** with customized filters
- Improved sensitivity level: < 20AF488 molecules (<10 binding sites)

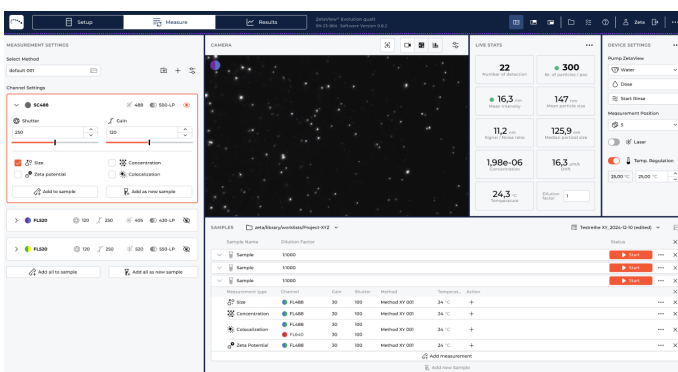


Particle Metrix F-NTA Tetraspanin Detection Antibodies

Easy fluorescent EV subpopulation analysis: Together with our newly developed **F-NTA Detection Antibodies** the ZetaView® Evolution forms a package making it your perfect **EV solution**:

Measurement settings are prestored for each antibody and a detailed staining protocol is provided. Available for detection of CD9, CD63 and CD81 individually or as a complete PAN EV staining kit.

ZetaSphere software – explore the nanocosmos



By combining the popular and **intuitive** ZetaView® software with the requirements for **multi-level** sample analysis, we created the new ZetaSphere software – designed for perfect user experience.

Highlights:

- Predefined settings for EVs in scatter and fluorescence
- Live size and concentration statistics
- Complete multiparameter sample reporting
- Switch between lasers with one click
- Database event logging for data integrity

ZetaView® Evolution



Specifications



- Scanning NTA for size determination via Brownian motion tracking
- Concentration determination via Concentration Scanning Technology
- Available lasers: 405nm; 488nm; 520nm; 640nm; 660nm
- Minimum sample quantity: 500µl
- pH range: 1 - 13



Size range:
10 – 1000nm
(sample and laser dependent)



Concentration range:
 $10^5 - 10^9$ particles/ml



Sensitivity level:
Fluorescence
< 20AF488 molecules



Zeta potential working range:
-500mV - +500mV



C-NTA:
Colocalization of two
fluorophores on one particle

**For more information on the ZetaView®, or to discuss your requirements,
please contact us.**



Manufactured by Particle Metrix, distributed in the UK and Ireland by **analytik.**