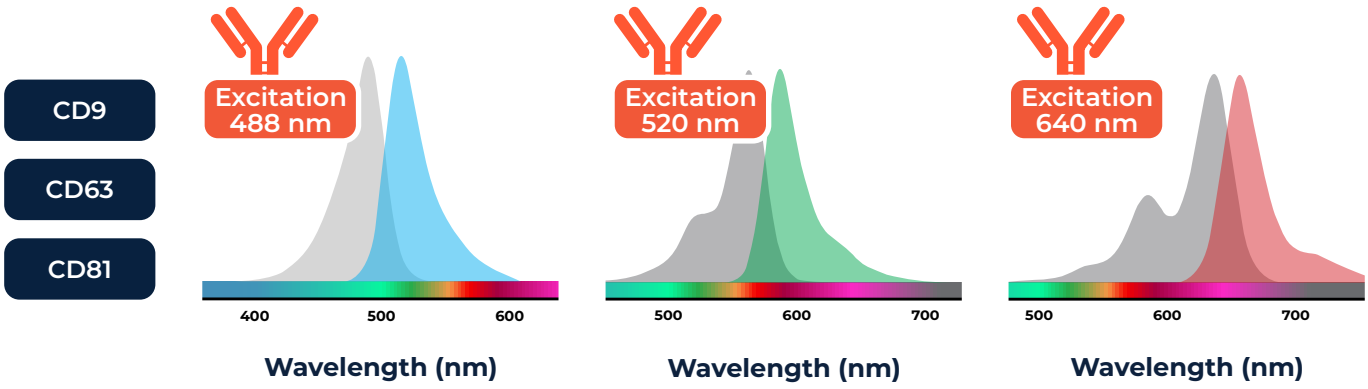
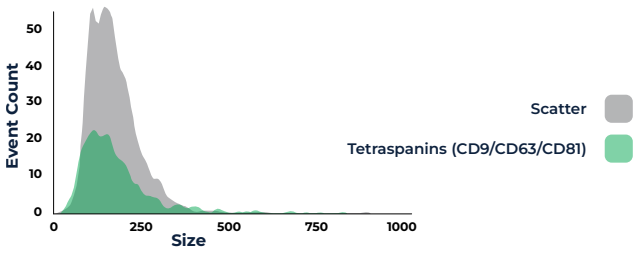
F-NTA Tetraspanin Detection Antibodies

PARTICLE METRIX

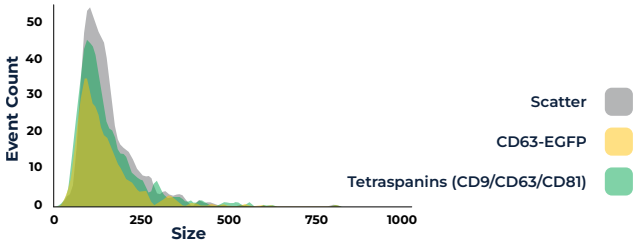
Game Changers for your EV characterization



Application Examples



EVs isolated from Plasma
PAN stained with
PMX F-NTA EV Tetraspanin Detection Kit (CD 9, CD 63, CD81)
Measured with ZetaView x30, excitation 520 nm



Exosomes CD63-EGFP from HEK293 cells
PAN stained with
PMX F-NTA EV Tetraspanin Detection Kit (CD9, CD63, CD81)
Measured with ZetaView x30, excitation 520 nm

Take your EV research to the next level with these powerful antibodies

- Easy EV detection with PAN EV staining
- Customized for F-NTA
- High binding affinity
- Bright and stable fluorescence
- 3 Color conjugations
- Matching controls
- Matching exosome standards

Optimized for **ZetaView® F-NTA**

Our F-NTA detection anti-human antibodies CD9, CD63 and CD81 have high binding affinity and are optimized for EV detection in fluorescent NTA applications.

Available in three brightly fluorescent color conjugations, optimized for the 488nm, 520nm and 640nm laser.

Our antibodies are delivered with a dedicated staining protocol and the optimal instrument settings for the ZetaView®, making F-NTA based CD9, CD63 and CD81 detection an easy task.

Antibodies and Exosome Product Overview

	488nm	520nm	640nm
F-NTA CD9 Detection Antibody	500 tests 700384	500 tests 700385	500 tests 700386
F-NTA CD63 Detection Antibody	500 tests 700387	500 tests 700388	500 tests 700389
F-NTA CD81 Detection Antibody	500 tests 700390	500 tests 700391	500 tests 700392
F-NTA IgG Control Antibody	500 tests 700393	500 tests 700394	500 tests 700395
F-NTA EV Tetraspanin Detection Kit	750 tests + 250 IgG 700381	750 tests + 250 IgG 700382	750 tests + 250 IgG 700383
Exosome Standards 10µg / 50µg	Lyophilized Exosomes from thrombocytes and CD63-EGFP from HEK293 cells		

For more information on our F-NTA Tetraspanin Detection antibodies please contact us:

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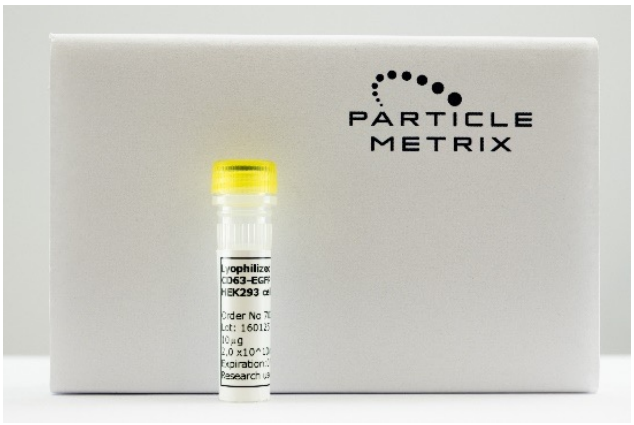
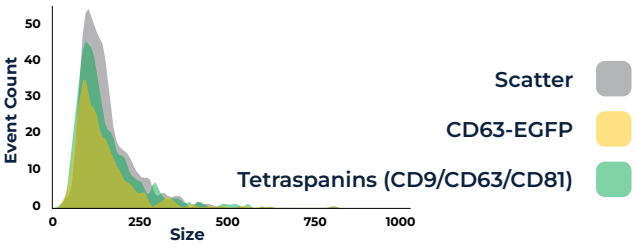
Lyophilized Exosome Standards

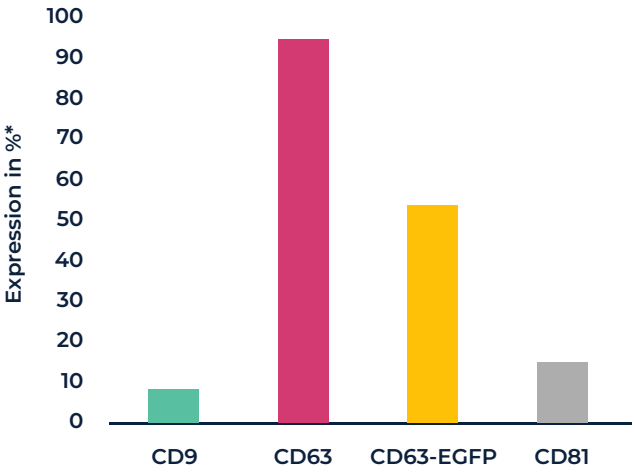
PARTICLE METRIX

Positive Controls
Assay Calibration
Verification

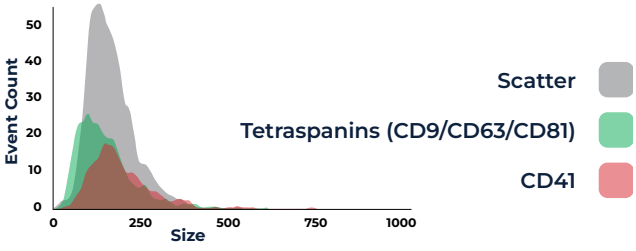


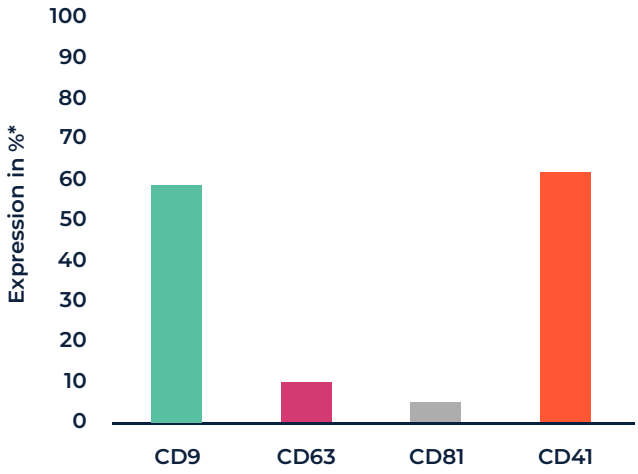
Exosomes from HEK293 Cells CD63-EGFP





Exosomes from Human Thrombocytes of Healthy Donors





*Expression levels of CD markers might vary slightly between batches.

Exosomes from HEK293 Cells CD63-EGFP

Product Details

Product No:	700378/700377
Size:	10µg / 50µg
Origin:	Human embryonic kidney (HEK293 cells)
Storage:	4°C
GFP Ex/Em:	488nm/507nm
Isolation:	Combination of tangential flow filtration (TFF) and size exclusion chromatography (SEC)

Exosomes from Human Thrombocytes of Healthy Donors

Product Details

Product No:	700376/700375
Size:	10µg / 50µg
Origin:	Human thrombocytes (platelets) of healthy donors
Storage:	4°C
Isolation:	Combination of tangential flow filtration (TFF) and size exclusion chromatography (SEC)

Applications

F-NTA
Reconstituted exosomes can be used for phenotyping assays by fluorescence NTA.
Recommended quantity: 1 µg of exosomes for each test.

Flow Cytometry
Reconstituted exosomes can be used for profiling biomarkers by flow cytometry analysis.
Recommended quantity: 5 µg of reconstituted exosome standards for each test.

ELISA
Reconstituted exosomes can be loaded directly onto ELISA plate wells.
Recommended quantity: 10 - 20 µg per well.

Western Blot
Reconstituted exosomes can be directly lysed in Laemmli buffer, then loaded on the electrophoresis gel. Recommended quantity: 10-20 µg per line.

For more information on our Lyophylized Exosome Standards please contact us.

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WITH INSTRUMENT

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Product Information

F-NTA CD9/CD63/CD81 Detection Antibody 488/ F-NTA IgG Control Antibody 488

Product Details

Product Number:	700384/ 700387/ 700390/ 700393
Size:	500 tests
Reactivity:	Human, Baboon, Cynomolgus monkey, Human, Non-human primates
Isotype:	Mouse IgG1 kappa
Excitation/Emission:	490nm/516nm
Clonality:	Monoclonal
Storage conditions:	4°C, protected from light

Experimental Protocol

- Dilute the required amount of antibody 1:10 in nanoparticle free phosphate buffered saline (PBS). Use 1µl antibody/10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 488nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

- Concentration >$2{,}0x10^{11}$: please predilute sample
- Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

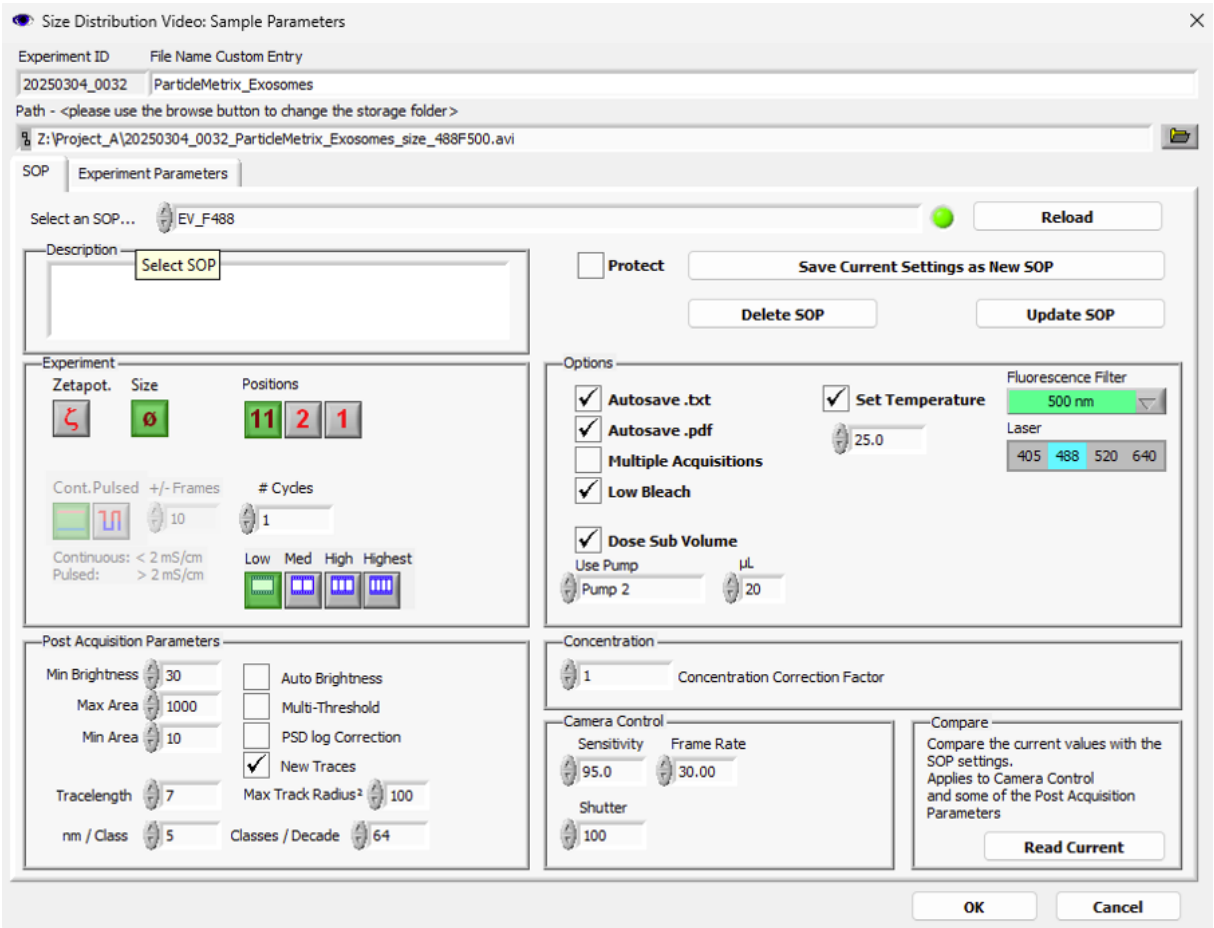
Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings



Product Information

F-NTA CD9/CD63/CD81 Detection Antibody 520/ F-NTA IgG Control Antibody 520

Product Details

Product Number:	700385/ 700388/ 700391/ 700394
Size:	500 tests
Reactivity:	Human, Baboon, Cynomolgus monkey, Human, Non-human primates
Isotype:	Mouse IgG1 kappa
Excitation/Emission:	562nm/584nm
Clonality:	Monoclonal
Storage conditions:	4°C, protected from light

Experimental Protocol

- Dilute the required amount of antibody 1:10 in nanoparticle free phosphate buffered saline (PBS). Use 1µl antibody/10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 520nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

- Concentration >$2{,}0x10^{11}$: please predilute sample
- Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

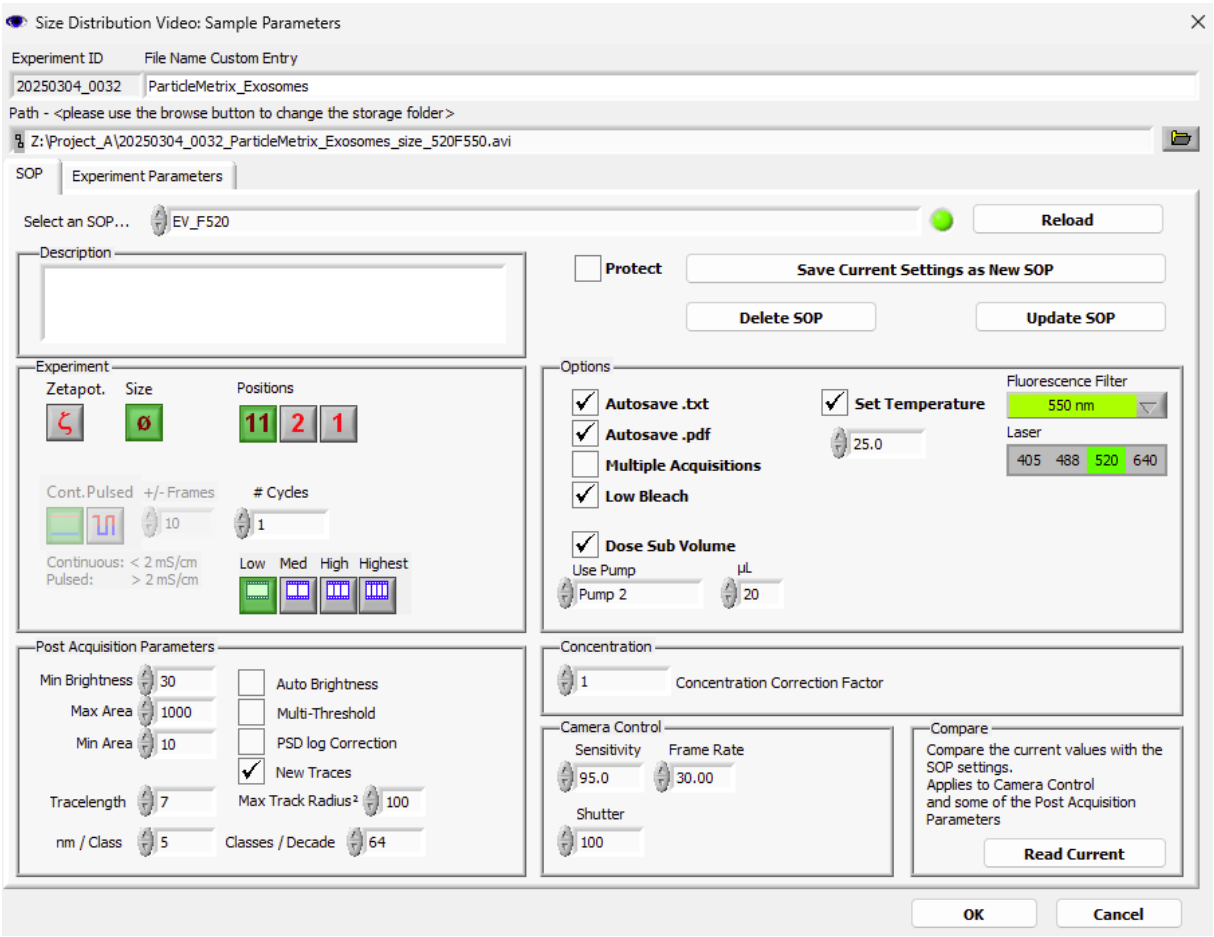
Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings



Product Information

F-NTA CD9/CD63/CD81 Detection Antibody 640/ F-NTA IgG Control Antibody 640

Product Details

Product Number: 700386/ 700389/ 700392/ 700395

Size: 500 tests

Reactivity: Human, Baboon, Cynomolgus monkey, Human, Non-human primates

Isotype: Mouse IgG1 kappa

Excitation/Emission: 642nm/663nm

Clonality: Monoclonal

Storage conditions: 4°C, protected from light

Experimental Protocol

- Dilute the required amount of antibody 1:10 in nanoparticle free phosphate buffered saline (PBS). Use 1µl antibody/10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 640nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

- Concentration >$2{,}0x10^{11}$: please predilute sample
- Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

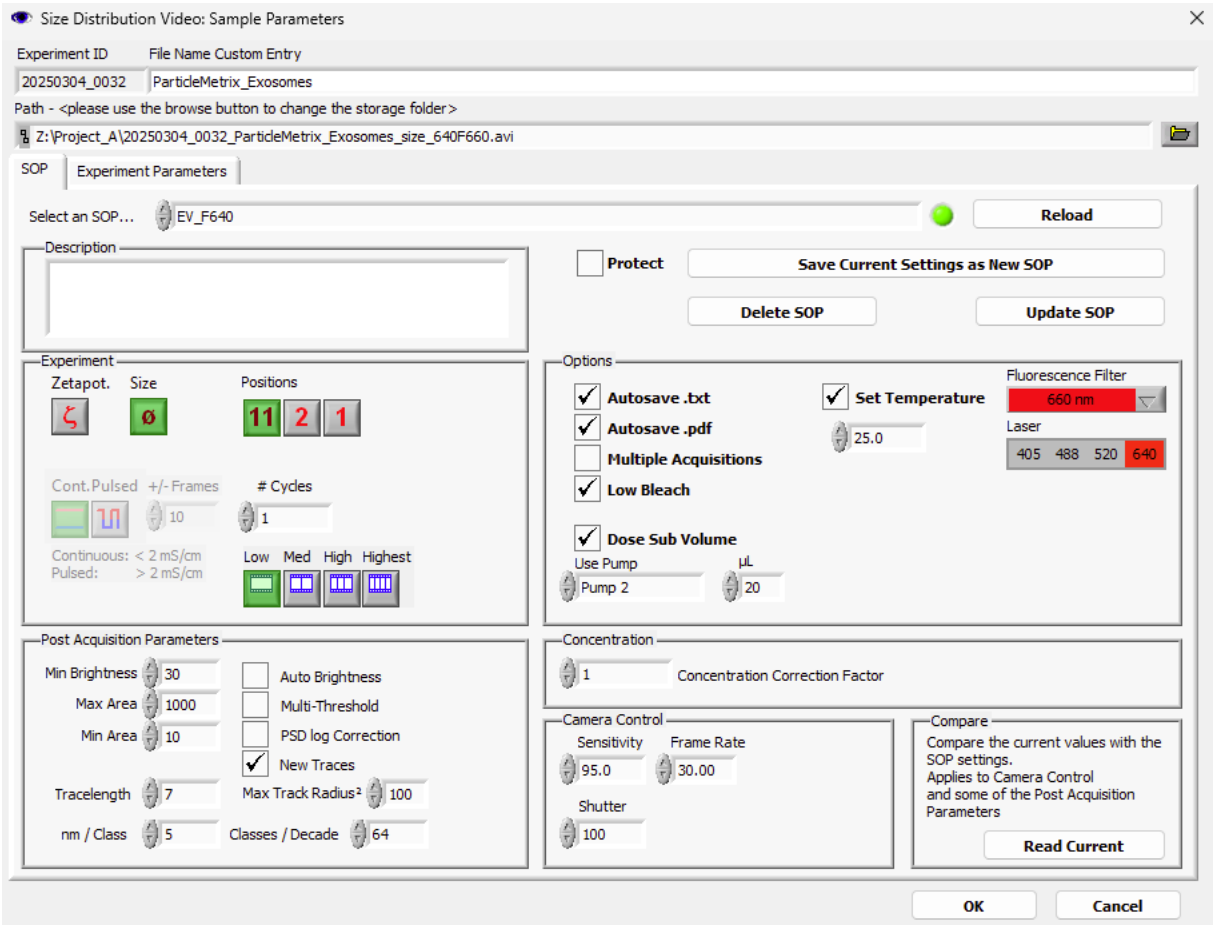
Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings



Product Information

F-NTA Tetraspanin EV Detection Kit 488

Product Details

Product Number:	700381
Size:	750 tests + 250 IgG tests
Reactivity:	Human, Baboon, Cynomolgus monkey, Human, Non-human primates
Isotype:	Mouse IgG1 kappa
Excitation/Emission:	490nm/516nm
Clonality:	Monoclonal
Storage conditions:	4°C, protected from light

Experimental Protocol

- Dilute 1µl of each of the three CD antibodies (CD9/CD63/CD81) in 27µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 30 tests.
- For IgG control dilute 1µl in 9µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody mix or IgG control and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 488nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

Concentration >$2{,}0x10^{11}$: please predilute sample
Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

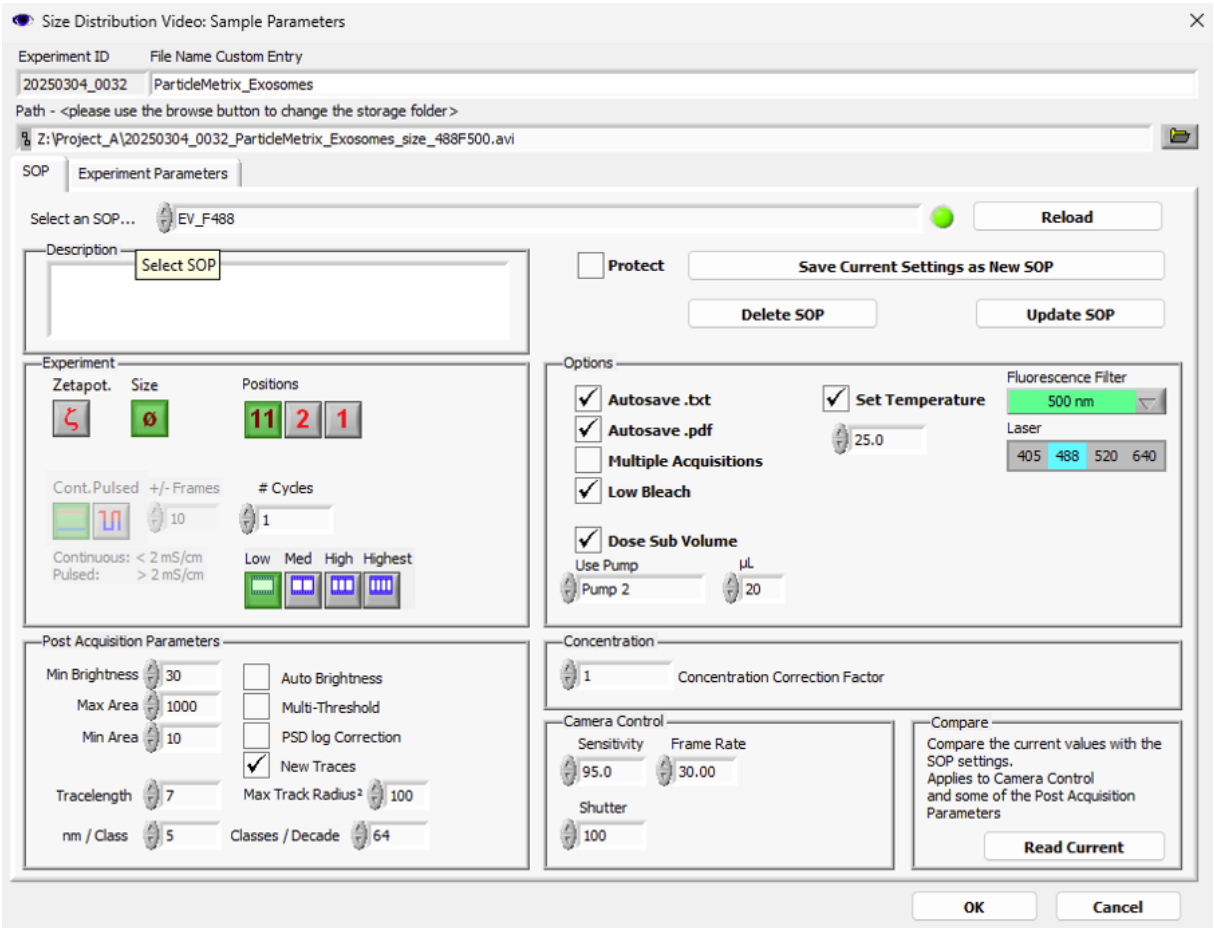
Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings



Product Information

F-NTA Tetraspanin EV Detection Kit 520

Product Details

Product Number:	700382
Size:	750 tests + 250 IgG tests
Reactivity:	Human, Baboon, Cynomolgus monkey, Human, Non-human primates
Isotype:	Mouse IgG1 kappa
Excitation/Emission:	562nm/584nm
Clonality:	Monoclonal
Storage conditions:	4°C, protected from light

Experimental Protocol

- Dilute 1µl of each of the three CD antibodies (CD9/CD63/CD81) in 27µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 30 tests.
- For IgG control dilute 1µl in 9µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody mix or IgG control and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 520nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

Concentration >$2{,}0x10^{11}$: please predilute sample

Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

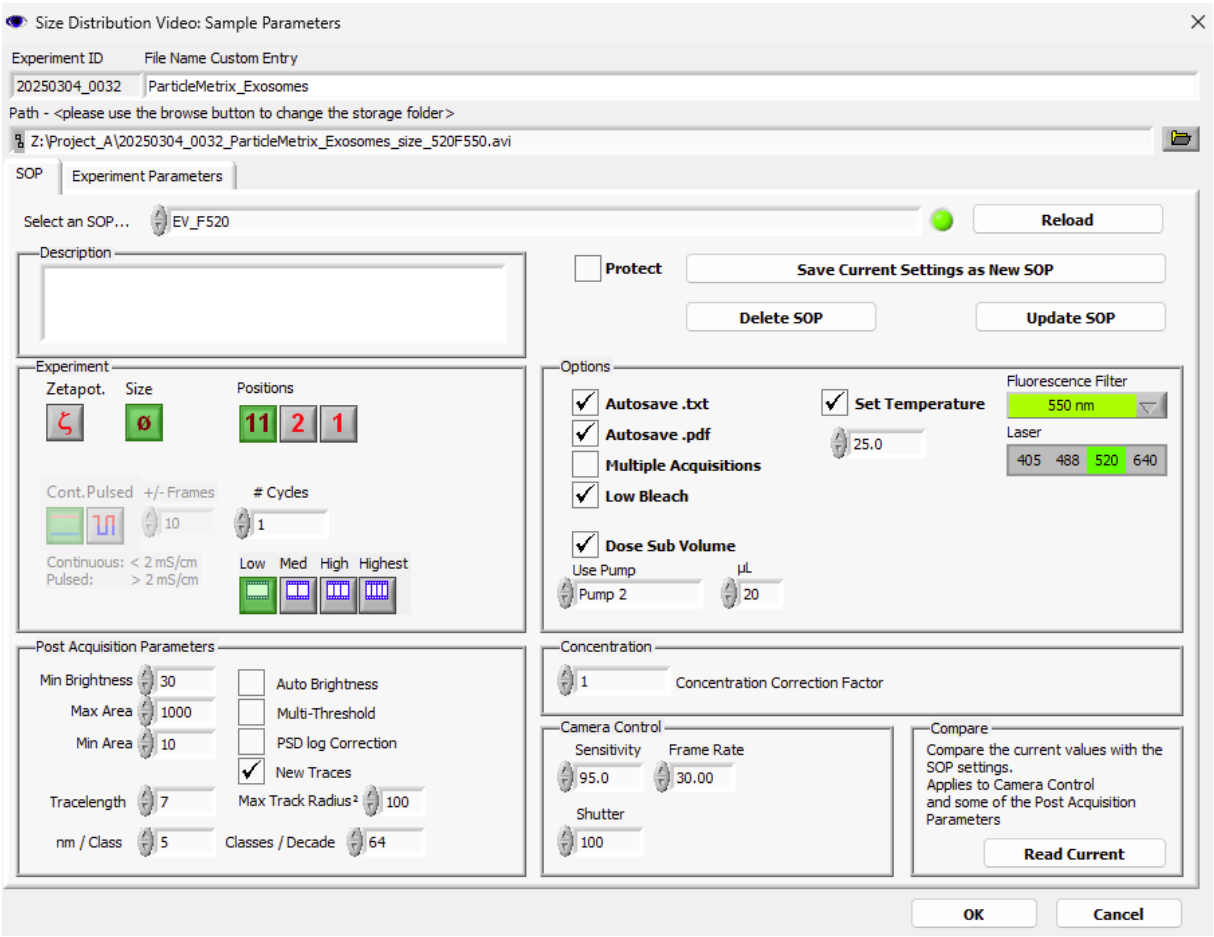
Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings



Product Information

F-NTA Tetraspanin EV Detection Kit 640

Product Details

Product Number:	700383
Size:	750 tests + 250 IgG tests
Reactivity:	Human, Baboon, Cynomolgus monkey, Human, Non-human primates
Isotype:	Mouse IgG1 kappa
Excitation/Emission:	642nm/663nm
Clonality:	Monoclonal
Storage conditions:	4°C, protected from light

Experimental Protocol

- Dilute 1µl of each of the three antibodies (CD9/CD63/CD81) in 27µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 30 tests.
- For IgG control dilute 1µl in 9µl nanoparticle free phosphate buffered saline (PBS). This predilution can be used for up to 10 tests.
- Pipette 1-9µl EV sample (see table below) with a concentration of 10^{10}-10^{11} EVs/ml in a 1.5ml reaction tube.
- Add 1µl of the prediluted antibody mix or IgG control and fill the volume up to 10µl using PBS.
- Store for 60min at room temperature in the dark.
- Fill up to 1ml total volume using PBS.
- Analyze the sample with a ZetaView® using the 640nm laser.

EV concentration (particles/ml)	**EV sample volume (µl)**	**Final dilution factor (for use in ZetaView® software)**
$1{,}5x10^{11}$	1	1000
$1{,}0x10^{11}$	1,5	666
$7{,}5x10^{10}$	2	500
$5{,}0x10^{10}$	3	333
$3{,}8x10^{10}$	4	250
$3{,}0x10^{10}$	5	200
$2{,}5x10^{10}$	6	166
$2{,}1x10^{10}$	7	143
$1{,}9x10^{10}$	8	125
$1{,}7x10^{10}$	9	111

Concentration >$2{,}0x10^{11}$: please predilute sample

Concentration <$5{,}0x10^{9}$: please increase sample volume and incubation time (see trouble shooting)

Trouble shooting

Number of particles/frame is too low:

- Increase the volume of EV sample to be stained. In case the volume needs to be increased above 20µl, the incubation time should be increased to 4h.
- Check protein concentration: concentrations higher than 30mg/ml might affect staining efficiency negatively.

Particles are visible in the buffer only control:

- Centrifuge antibody at 17.000g for 10min and use the supernatant.

Measurement settings