PURE-EVs: SEC columns for EV isolation

A set of columns for EV purification from different volumes of fluids

Size Exclusion Chromatography (SEC) is an efficient methods for isolating and purifying Extracellular Vesicles (EVs) from different fluids, not affecting the original shape and functionality of the vesicles. We have developed a set of SEC columns which allow the EV purification from small (100 μl) up to larger volumes (20 ml) of fluids. The EV purification process with PURE-EV columns is very fast, taking approximately 15 minutes of time.

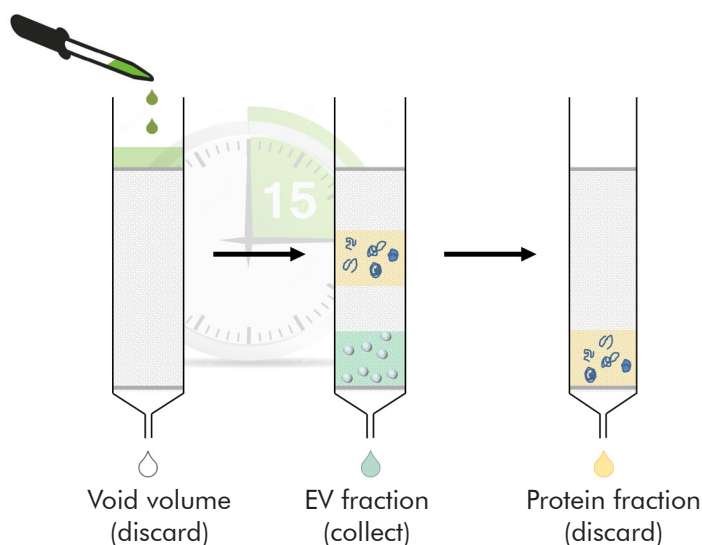Maxi-PURE-EVs
Code: HBM-mxPEV
Volume: 2 - 20 ml

PURE-EVs
Code: HBM-PEV
Volume: 0.5 - 2 ml

Mini-PURE-EVs
Code: HBM-PEV
Volume: 0.1 - 0.5 ml

Fast EV isolation and purification

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Void volume
(discard)

EV fraction
(collect)

Protein fraction
(discard)

Characteristics

- Suitable for small (100 µl) and large (20 ml) volumes.

- Reusable up to 5 times

- EVs keep the original shape and functionality

Applications

- EV purification from cell media, biofluids, plant extract

- EV purification from contaminats

- Removal of the dye eccess post EV labeling

Advantages

- Fast turnaround time

- Long term stability at 4°C

- User friendly workflow

The best way to get intact EVS

## PURE-EVs: fast isolation of highly pure EVs from multiple sources

EVs isolation from cell conditioned media, biofluids and plant extracts

Our column of II generation are able to concentrate the EV fractions, compared to normal columns filled with Sepharose, incrementing the separation of EVs from circulating proteins. EVs were purified from 1 ml of CCM from HCT116 cells and analyzed by ExoTEST ELISA assay, detecting the expression of CD81.
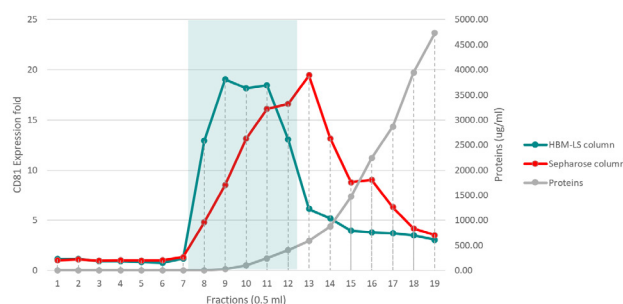

EV labelling: removal of the dye excess by Mini-PURE-EV column

All PURE-EVs columns can be used for removing contaminans from EV suspensions. 10 μg of purified EVs from HCT116 cells were labeled by the membrane dye Cell Mask Green. The excess of the dye has been removed from the EV preparation using a mini-PURE-EVs column. The background removal has been detected by NTA with Zetaview (Particle Metrix).
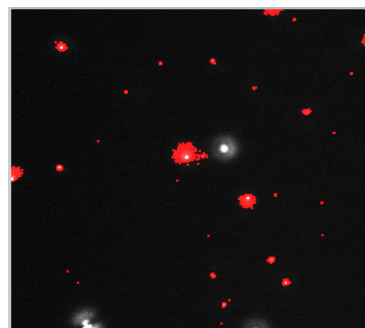
Dye excess removed by mini-PURE-EVs
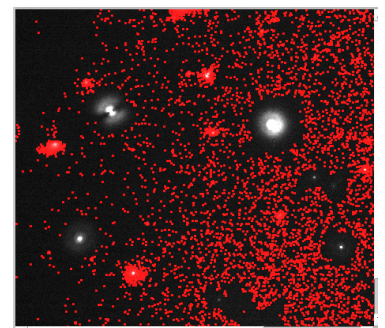
Dye excess not removed

Scalable EV purification combining TFF-Easy and Maxi-PURE-EVs columns

200 ml of CCM

Concentration to 20 ml

Retentate collection

EV purification by Maxi-PURE-EVs