

# miniPURE-EVs: Size Exclusion Chromatography columns for Exosome and Microvesicle isolation.

## miniPURE-EVs.

Cat Code: HBM-mPEV-##. Quantity: 10 or 20 SEC columns

### miniPURE-EVs Columns.

Size Exclusion Chromatography (SEC) is considered one of the best methods for isolating and purifying exosomes and extracellular vesicles (EVs) from different matrices. In particular, this technique is very efficient for separating EVs from the circulating proteins and does not affect the original shape and functionality of the vesicles. miniPURE-EV is a SEC column designed for isolating EVs in a fast and easy way from small volume amount from plasma and serum or other biofluids:

Fluid	Volume amount
Plasma	100 µl up to 500 µl
Serum	100 µl up to 500 µl

### Procedure for EV isolation.

#### 1. Sample preparation.

Prepare the sample by centrifugation steps as suggested in the table below:

Fluid	Suggested	Optional
Plasma	10 min at 300 g (save super) 20 min at 1200 g (save super)	30 min at 10000 g (to eliminate vesicles > 200 nm)
Serum	10 min at 300 g (save super) 20 min at 1200 g (save super)	30 min at 10000 g (to eliminate vesicles > 200 nm)

#### 2. EV isolation.

- Open the upper cap of the miniPURE-EVs columns and rinse the column with 100 µl up to 500 µl of sample containing EVs (Fig 1).
- Open the lower cap. Fluid starts to flow through the column (Fig 1).
- Collect and discard the first 500 µl fraction, not containing EVs.
- Collect and save the second 500 µl fraction, containing EVs.

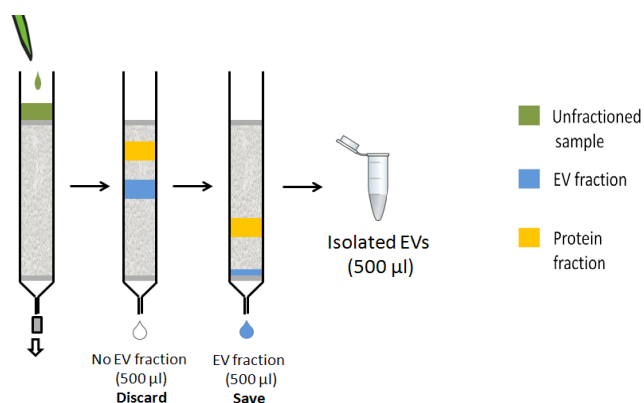
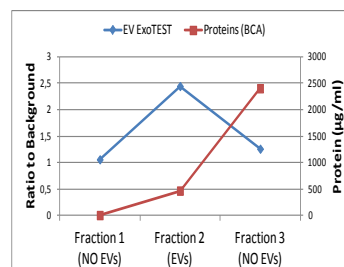


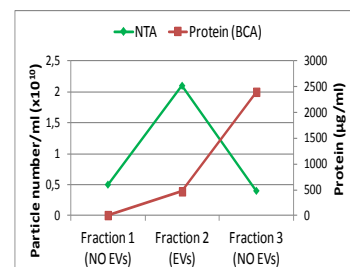
Fig 1

### EV separation.

Collected fractions (500 µl) were analyzed by NTA (Nanosight LM10), ExoTEST and by BCA assay for determining EV and total protein content (Fig 2). EVs are eluted in fraction 2.



EV elution peak. ExoTEST™ vs NTA analysis.



EV elution vs circulating protein elution. NTA analysis compared to protein BCA test.

Fig 2

PURE-EVs column was rinsed with 200 µl of human plasma, 19 fractions (100 µl each one) have been collected and analyzed by ELISA ExoTEST™ assay and by BCA test for determining respectively vesicle and total protein content. EVs are eluted in fractions 7 - 11 (turnaround time approximately 15 min), whereas plasma circulating proteins corresponded to the fractions 13 - 19 (Fig 3).

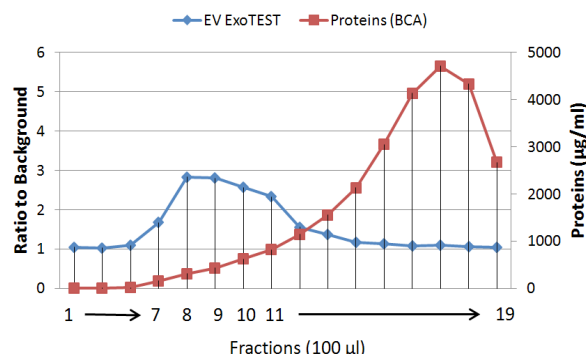


Fig 3

### Related product.

Cat. Code	Volume	Package
PURE-EV: Size Exclusion Chromatography columns		
HBM-PEV-##	1.5 ml - 500 µl	5 or 10 Columns
PURE-EV PLUS: Size Exclusion Chromatography column and MWCO concentrator		
HBM-PEV-##	1.5 ml - 500 µl	5 or 10 Columns + 5 or 10 MWCO concentrators
miniPURE-EV PLUS: Size Exclusion Chromatography column and MWCO concentrator		
HBM-mPEV-##	500 µl - 100 µl	10 or 20 Columns + 10 MWCO concentrators