Exo-Filter

Ion Exchange Chromatography filter membrane

Product Code: HBM-EXF-#####

HansaBioMed Life Sciences

Pioneering the EV Field

About Exo-Filter

Exo-Filter™ consists in a charge-based adsorption filter for processing both small and large volume and for implementing the purification of the extracellular vesicles from complex biofluids. The filter uses a strong positively charged membrane to efficiently capture negatively charged EVs and nanoparticles.

Package Contents

Exo-Filter	Catnumber	Filter units	Elution Buffer (ml)
Exo-Filter mini	HBM-EXF-60001	20	5
Exo-Filter midi	HBM-EXF-60015	20	20
Exo-Filter maxi	HBM-EXF-60050	20	60
Exo-Filter Bottle Top	HBM-EXF-60250	4	200

Working procedure

1) Membrane activation.
Open the lid, gently pipette the amount of MilliQ water (indicated in the table) into the filter, so that the filter becomes thoroughly soaked. Cover it with the lid, closing it just enough to prevent dust from getting in. (Do not lock it tightly). Open the lid and discard the waste solution.

Exo-Filter	Volume of MilliQ water
Exo-Filter mini	0.2 ml
Exo-Filter midi	0.6 ml
Exo-Filter maxi	3 ml
Exo-Filter Bottle Top	50 ml

2a) Sample Filtering (procedure for Exo-Filter mini/midi/maxi).
Gently pipette the sample into the filter and cover with the lid.

Let the sample pass through the filter by gravity flow, at room temperature. After the sample is completely filtered down, open the lid and discard the waste solution in the collection tube. Place a new collection tube.

Exo-Filter	Sample volume
Exo-Filter mini	0.1 - 1 ml
Exo-Filter midi	1 - 3 ml
Exo-Filter maxi	5 - 15 ml

2b) Sample filtering (procedure for Exo-Filter Bottle Top).
1) Gently pour the sample into the Exo-Filter and turn on the vacuum pump at -2 kPa. Cover it with the lid. (The recommended vacuum pressure range is between -2kPa and -85kPa).
After the sample is completely filtered down, open the lid and discard the waste solution in the waste bottle and place a new bottle.

3a) Elution step (procedure for Exo-Filter mini/midi/maxi).
Add the Elution buffer, in the quantity indicated int he table .

Let the Elution Buffer pass through the filter by gravity flow, at room temperature. After the Elution Buffer is filtered down, spin the tube in centrifuge at 3000xg for 30 seconds, in order to recover completely the dead volume.

Exo-Filter	Volume of Elution Buffer
Exo-Filter mini	0.2 ml*
Exo-Filter midi	0.2 - 0.6 ml*
Exo-Filter maxi	1 - 3 ml *
*Elution Buffer should be 1/5 of the sample volume	

Collect the eluate, containing EVs, in a clean tube.

3b) Elution step (procedure for Exo-Filter Bottle Top).
Add the 50 ml of Elution buffer (1/5 of the sample volume), and then turn on the vacuum pump at -2 kPa (recommended vacuum pressure range: -2kPa to -85kPa).
Collect the eluate, containing EVs, in a clean bottle.

Note that the experimentation is possible at 1 atm; however, it is highly recommended to use a vacuum, as the process takes a considerably long time. If conducted at 1 atm, it is advised to proceed overnight.

4) Test limitation.
The lyophilized reagent coated in the filter is hygroscopic and can degrade after prolonged exposure to room air. Therefore, the test cartridge should be used immediately after removal from the pouch. When results are not within the expected limits, the possibility of improper sample collection or handling should be investigated. Repeat the test using a new Exo-Filter series and sample.

Manufacturer
Exo-Filter™ is manufactured by Microgentas Inc and distributed by HansaBioMed Life Sciences LTD.