

**Aopia**

# NanoEX™

The Ultimate Automated  
Bio-nanoparticle Isolation System



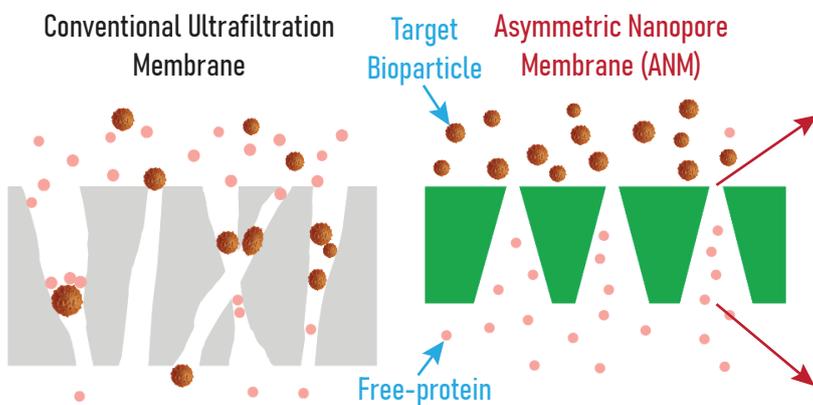
## NanoEX™

### Groundbreaking Nanotechnology

- Patented Asymmetric Nanopore Membrane (ANM) technology (PCT/US2020/050844)
- Highly uniform pore size for superior selectivity
- Asymmetric pores for efficient contaminant removal
- Gentle processing preserves bioparticle integrity and eliminate protein aggregation

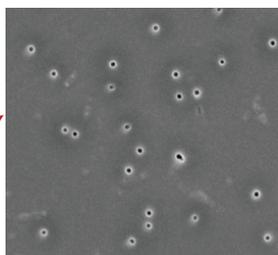
### Innovative Instrument Design

- Purify ultra-high quality bioparticles from 10-2000 ml input volume
- Fully automated processing
- Simultaneous purification and enrichment
- Fully enclosed processing avoids environmental and cross-contamination

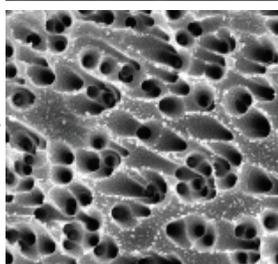


Particle trapping, pore clogging, and shear force induced rotein aggregation lead to poor quality

Uniform pores and minimal cross membrane resistance ensure high purification efficiency



Uniform pore size (<10% CV) guarantees efficient contaminant removal and minimizes bioparticle loss



Cone-shaped pore geometry with large opening minimizes pass-through resistance of contaminants



#### Fully Automated Processing

Ultra streamlined workflow



#### Unparalleled Yield and Purity

Outperforms all existing technologies



#### Perfect Integrity

Gentle process prevents bioparticle damage



#### Enrichment

Highly concentrated and pure products



#### Exceptional scalability

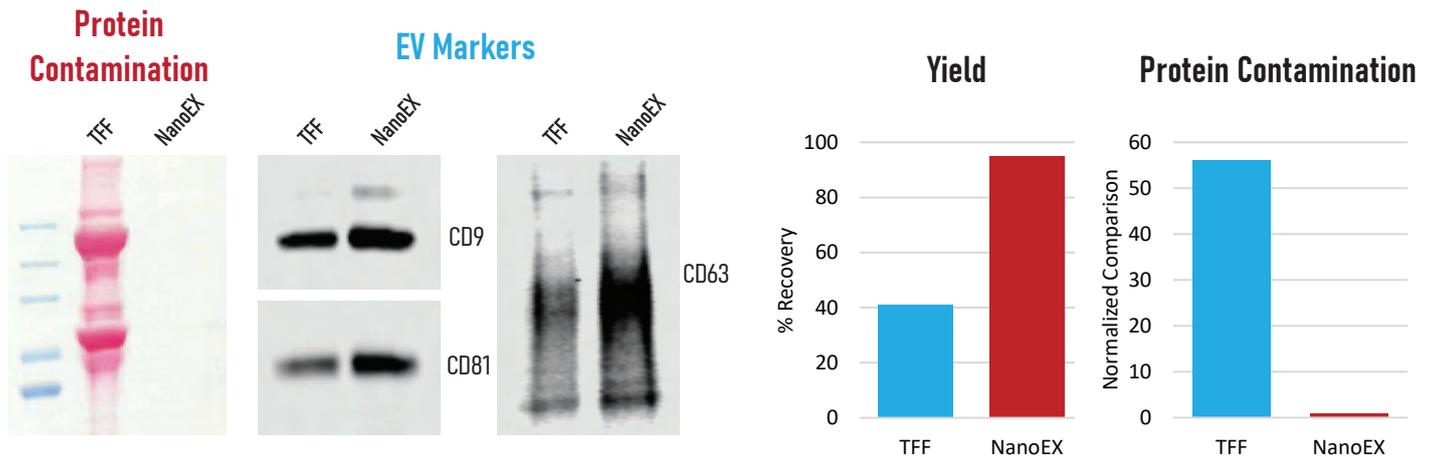
Meets most research and industrial needs

Product Name	SKU	Dimension (cm)	Weight
NanoEX	NE1000	60 (L) X 30 (W) X 40 (H)	14 kg

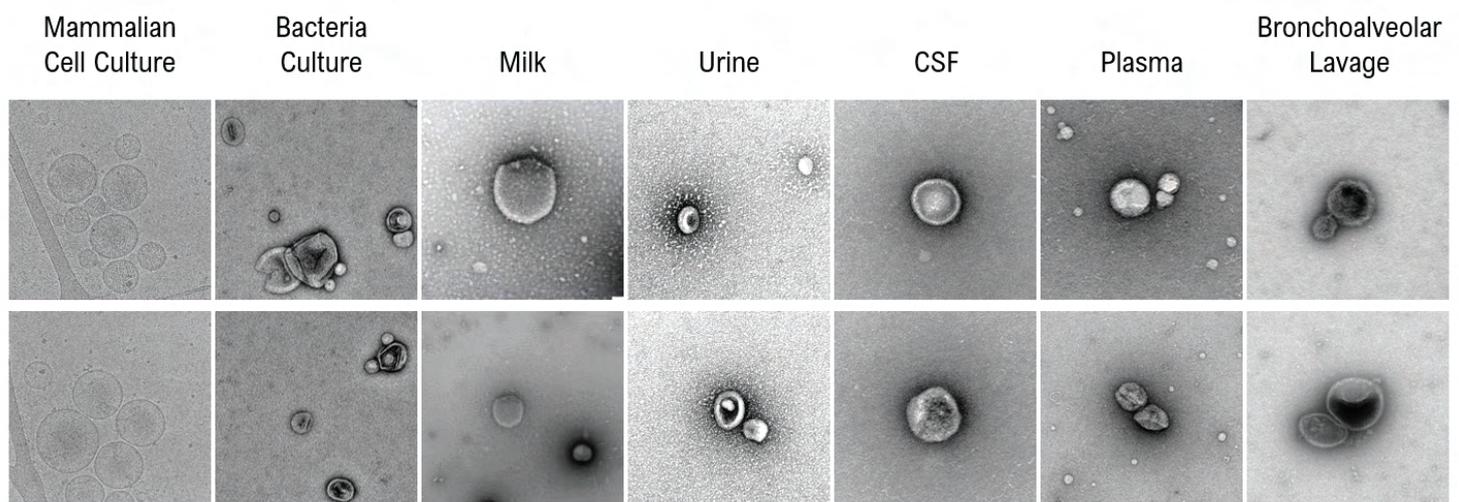
## All-around Superior Performance to Existing Technologies

Method	Yield	Purity	Scalability	Automated
<b>NanoEX</b>	<b>++++</b>	<b>++++</b>	<b>+++</b>	<b>Yes</b>
Ultracentrifugation (UC)	++	++	++	No
Polymer Precipitation	++++	+	++	No
Immunoaffinity	+	++++	+	No
Microfluidics	+	+++	+	No
Ultrafiltration	+++	+	++	No
Size Exclusion Chromatography (SEC)	+++	+++	+	No
Tangential Flow Filtration (TFF)	++++	+	++++	Yes

## Fundamental Improvement over TFF for Large Scale EV Isolation



## Unparalleled Purity from Wide Range of Sample Types



Transmission Electron Microscopy (TEM) images show well-preserved EVs with minimal protein particles

## VanoFlow® Cassettes



Powered by the ANM technology, the VanoFlow® Cassettes are used in combination with NanoEX to enable fully enclosed and fully automated isolation of bio-nanoparticles, such as EVs and LNPs. The self-monitoring and feedback control allows push-button processing for optimal isolation efficiency.

One single instrument with versatile cassette selections for all your needs



**99.9%**  
Purity (protein removal)



**10-2000 ml**  
Input volume



**>80%**  
Recovery rate



**10 min**  
Hands-on time



**Up to 25X**  
Direct EV enrichment



**3-5 hr**  
Processing time



### EV Isolation Cassette Selection

Cassette Name	SKU	Input Volume	Output Volume	Size Cutoff	Output EV Conc.	Reusability
VanoFlow-EXO-01	VF-EXO-01	10-60 mL	~4.5 mL	30 nm	Up to 10 <sup>12</sup> /ml	Single Use
VanoFlow-EXO-10	VF-EXO-10	50-300 mL	~20 mL	30 nm	Up to 10 <sup>12</sup> /ml	Reusable
VanoFlow-EXO-20	VF-EXO-20	100-600 mL	~35 mL	30 nm	Up to 10 <sup>12</sup> /ml	Reusable
VanoFlow-EXO-40	VF-EXO-40	0.2-1.2 L	~65mL	30 nm	Up to 10 <sup>12</sup> /ml	Reusable
VanoFlow-EXO-60	VF-EXO-60	0.3-2.0 L	~90 mL	30 nm	Up to 10 <sup>12</sup> /ml	Reusable

**NOUS CONTACTER**

**VOIR LES PRODUITS**

**OZYME**  
Des femmes et des hommes  
au service de vos recherches

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