

VIVAPRODUCTS

Protein Purification and Separation Technologies

Your Source for Clinical & Forensic Concentrators

Call us at 800-456-4633

Centrisart® I

Concentration & Purification of Clinical Biological Samples



Centrisart® I ultrafiltration concentrators are disposable devices for biological samples. Centrisart® I is suitable for sample volumes up to 2.5 ml. The unique design allows ultrafiltration to take place in the opposite direction to the centrifugal force. This minimizes membrane blockage even with whole blood or cell lysate samples. The filtrate is collected in the floater insert tube where it is easily withdrawn.

Centrisart® Applications

- Concentration of fungal antibodies prior to complement fixation or immunodiffusion for detection of *Coccidioides* and *Aspergillus*.
- Concentrate bacterial antigens (*H. influenzae*, *S. pneumoniae*) prior to latex particle agglutination for detection of sepsis in newborns.
- Free drug & hormone (T3 / T4) analysis. Process samples in about 30 minutes instead of 17 hours for equilibrium dialysis.
- Protein removal from serum & cell / tissue lysates.
- Prepare samples for mass spectrometry.

Features

Benefits

Filtration flows opposite to centrifugal force.	Fast filtration rates without membrane blockage with particle laden samples.
Integrated dead stop	No risk of over concentration. No need to re-spin samples.
Low binding materials	High sample recovery.
Wide range of MW cutoffs	Choose MW cutoff for your specific application.

Technical Specifications

Concentrator Capacity	Centrisart® I
Fixed angle rotor	2.5 ml
Swinging bucket rotor	2.5 ml

Dimensions	
Total Length	93 mm
Width	14 mm
Active membrane area	0.79 cm ²
Hold-up volume (membrane & support)	< 5 µl
Dead stop volume	100 µl

Materials of Construction	
Centrifuge tube	Polystyrene
Floater tube	Styrene acrylonitrile
Cap	Polyethylene
Membrane *	PES, CTA

* See other side for membrane descriptions

Equipment Required

Centrifuge

Rotor cavity	To fit 15 ml (17 mm) conical bottom tubes
Fixed Rotor-Minimum Angle	25°
Fixed Rotor-Max. Speed	2,000 g
Swinging Bucket-Max. Speed	2,500 g

Pipettes for Sample Delivery & Recovery

Fixed or variable volume may be used. For maximum recovery, a thin gel loader type is recommended.

Membrane Selection Guide

Polyethersulfone (PES)

A good general purpose membrane for most solutions. Has low fouling characteristics with very good flow rates. Tolerates a broad pH range (from 1 to 9).

Cellulose Triacetate (CTA)

Good hydrophilic properties with very low non specific binding. Cast without a membrane support that could bind filtered solutes. Use when recovery of filtrate is most important (free drug or hormone testing).

Hydrosart® (HY)

Similar to regenerated cellulose but with better performance characteristics and low protein binding. Good choice for concentration and desalting of proteins that may bind to other membranes such as immunoglobulin fractions.

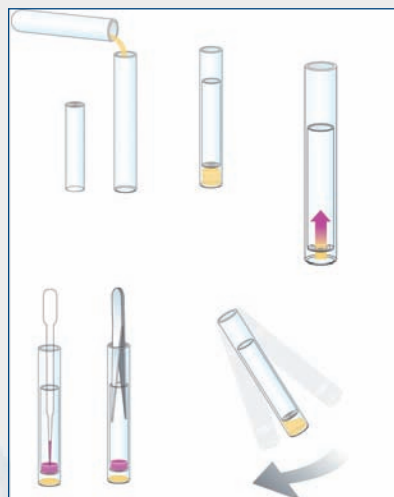
Performance Characteristics

Time (in min.) to concentrate at 20° C with rotor type shown. Also showing sample % passage through membrane

	Centrisart® I 2.5 ml@2,000 g Concentrate 2x Swinging Bucket		Centrisart® I 2.5 ml@2,000 g Concentrate 10x Swinging Bucket	
	Time	Pass.	Time	Pass.
BSA-1.0 mg/ml (66,000 MW)				
5,000 MWCO CTA	300	0%	No data	
10,000 MWCO CTA	35	2%	80	2%
20,000 MWCO CTA	9	2%	20	2%
IgG-0.25 mg/ml (160,000 MW)				
100,000 MWCO PES	13	3%	35	3%
Blue Dextran-0.25 mg/ml (2,000,000 MW)				
300,000 MWCO PES	9	28%	25	28%

Ordering Information

Molecular Weight Cutoff (MWCO)	Pack Size	Centrisart® I CTA membrane	Centrisart® I PES membrane
5,000 MWCO	12	13229-E	
10,000 MWCO	12	13239-E	
20,000 MWCO	12	13249-E	
100,000 MWCO	12		13269-E
300,000 MWCO	12		13279-E
Starter Pack (3 each 5K, 10K, 20K & 100K MWCO)	12	13209-E (includes 100K PES membrane)	



Simple to Use

- Remove inner floater tube & pour in sample.
- Replace inner floater tube.

- Centrifuge sample.
- Pipette out filtrate of sample or
- Use forceps to remove inner floater tube to access concentrated sample.

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Visit our website www.vivaproducts.com for pricing and on-line ordering!