

## 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 The filtrate is collected in the floater insert tube where it is easily withdrawn.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 in serum prior to complement fixation or immunodiffusion for detection of *Coccidioides* and *Aspergillus*.
- Concentrate bacterial antigens in urine (*Legionella*, *Pneumonia*, *Streptococcus B*) prior to immunoassays.
- Protein removal from serum & cell / tissue lysates.
- Prepare samples for mass spectrometry.

### Features

Filtration flows opposite to centrifugal force.

Integrated dead stop

Low binding materials

Wide range of MW cutoffs

### Benefits

Fast filtration rates without membrane blockage with particle laden samples.

No risk of over concentration. No need to re-spin samples.

High sample recovery.

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 <sup>2</sup> |
| 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  
Time Pass.**

**Centrisart® I  
2.5 ml@2,000 g  
Concentrate 10x  
Swinging Bucket  
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

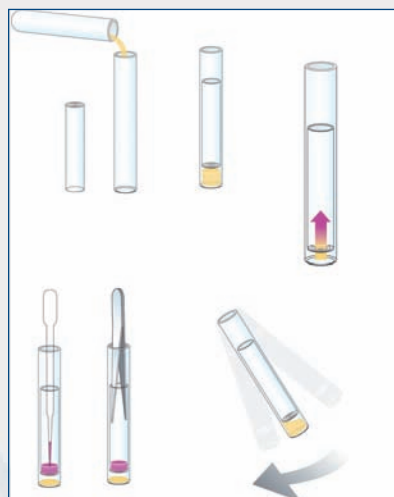
13279-E

Starter Pack

12

13209-E (includes 100K PES membrane)

(3 each 5K, 10K, 20K & 100K MWCO)



## 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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